



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ
KINGDOM OF CAMBODIA
Nation Religion King

ក្រសួងសេដ្ឋកិច្ច និង ហិរញ្ញវត្ថុ
MINISTRY OF ECONOMY AND FINANCE

N° 7379 /MEF/.....

Inter-Ministerial Resettlement Committee
General Secretariat
Resettlement Department
Fax no: (885) 23 426 682

Phnom Penh, September 29, 2014

H.E. IZAKI Hiroshi
Chief Representative
JICA Cambodia Office
Tel: 855 23 211 673
Fax: 855 23 211 675

Subject: Resettlement Action Plan for the NR No. 5 Improvement Project (Middle and End Section)

Your Excellency,


The Preparatory Survey for National Road No.5 Improvement Project for Middle and End section, (between Thlea Ma'am and Battambang including the bypass around Pursat and between Sri Sophorn and Poipet Section) has been conducted since September 2013 by KATAHIRA & Engineers International under the Ministry of Public Works and Transport (MPWT). Based on the Survey, the Project Affected People in the Project area and their socio-economic impact has been addressed for resettlement implementation.

As part of the Preparatory Survey, a Resettlement Action Plan (RAP) for the Project has also been prepared based on Cambodian laws and regulations and JICA Guidelines on Environmental and Social Consideration 2010. The draft RAP was submitted by MPWT to the Inter-ministerial Resettlement Committee (IRC) on 21 July 2014 for review comment and approval. Having reviewed the RAP and discussed with JICA Fact Finding Mission on 21 August 2014, we found that all comments from IRC have been incorporated in the revised RAP. Therefore, the RAP is endorsed and submitted to JICA for No Objection.

Regarding the RAP disclosure in English on JICA homepage before loan appraisal, its contents shall be the same as those of the disclosed RAP for the NR 5 (North and South Sections) by removing Table 4-1, Table 4-2, Table 4-3, Table 4-4, Table 10-1, Table 10-2, Table 10-3, Table 12-1, Appendix 5, Appendix 6 and related phrases from the draft final RAP version dated August 2014.

Please accept, Your Excellency, the assurances of my highest consideration.

Sincerely yours,


Nithan Leng
Under Secretary of State
Ministry of Economy and Finance

Cc: - H.E. Tauch Chankosal, Secretary of State, MPWT
- Cabinet of the Ministry Economy Finance
- Budget General Department, MEF



**KINGDOM OF CAMBODIA
MINISTRY OF PUBLIC WORKS AND TRANSPORT**

**JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

**Preparatory Survey for National Road No.5
Improvement Project/Middle Section:**

- from Thlea Ma'am to Battambang**
- from Sri Sophorn to Poipet**

Draft Final Resettlement Planning

KATAHIRA & ENGINEERS INTERNATIONAL (KEI)

Submission Date

August 2014

CURRENCY EQUIVALENTS

Currency Unit	:	Riel (KHR)
	:	United States Dollar (USD)
KHR 4,000.00	=	USD 1.00

ABBREVIATIONS

ADB	:	Asian Development Bank
AH	:	Affected Household
AP	:	Affected Person
BMCH	:	Banteay Mean Chey
BTB	:	Battambang
DBST	:	Double Bituminous Surface Treatment
DP	:	Development Partner
DPWT	:	Department of Public Works and Transport
DMS	:	Detailed Measurement Survey
EA	:	Executing Agency
EFA	:	Education for All
EMA	:	External Monitoring Agency
GMS	:	Greater Mekong Sub-region
HH	:	Household
ICD	:	International Cooperation Department
IOL	:	Inventory of Losses
IRC	:	Inter-ministerial Resettlement Committee
IRP	:	Income Restoration Program
JBIC	:	Japan Bank for International Cooperation
JICA	:	Japan International Cooperation Agency
JICA Guidelines	:	JICA Guidelines for Environmental and Social Considerations (April 2010)
KCHN	:	Kampong Chhnang
KDL	:	Kandal
MAFF	:	Ministry of Agriculture, Forestry and Fisheries
MEF	:	Ministry of Economy and Finance
MDG	:	Millennium Development Goal
MLMUPC	:	Ministry of Land Management, Urban Planning, and Construction
MOE	:	Ministry of Environment
MPWT	:	Ministry of Public Works and Transport
NGO	:	Non-Government Organization
NR	:	National Road
NTP	:	Notice to Proceed
PDEF	:	Provincial Department of Economy and Finance
PDPWT	:	Provincial Department of Public Works and Transport
PIB	:	Project Information Booklet
PMU	:	Project Management Unit
PMU-ES	:	Environmental Section of Project Management Unit
PRSC	:	Provincial Resettlement Sub-Committee

PRW	:	Provisional Road Width
PST	:	Pursat
RAP	:	Resettlement Action Plan
RCS	:	Replacement Cost Study
RD	:	Resettlement Department
RGC	:	Royal Government of Cambodia
ROW	:	Right-of-Way
SES	:	Socio-economic Survey
SHM	:	Stakeholder Meeting
SS	:	Sri Sophorn
TCP	:	Technical Cooperation Project
TOR	:	Terms of Reference
WG	:	Working Group
WTA	:	Willingness to Accept
WTP	:	Willingness to Pay

UNITS OF MEASUREMENT

ha	:	hectare
kg	:	kilogram
km	:	kilometer
lm	:	linear meter
m	:	meter

DEFINITION OF TERMS

Affected person (AP)/ : Refers to any person or persons, household, firm, private or public
Affected household (AH) institution that, on account of changes resulting from the Project, will have its:

- (i) standard of living adversely affected;
- (ii) right, title or interest in any house, land (including residential, commercial, agricultural, forest and/or grazing land), water resources or any other moveable or fixed assets acquired, possessed, restricted or otherwise adversely affected, in full or in part, permanently or temporarily; and/or
- (iii) business, occupation, place of work or residence or habitat adversely affected, with or without displacement.

In the case of AH, it includes all members residing under one roof and operating as a single economic unit, who are adversely affected by a project or any of its components.

Common/public property : Mean all resources or assets that are held in communal or village
resources ownership and include (but are not limited to) graves, burial grounds, wells, hand pumps and other affected drinking water sources, specimen trees, pagodas, churches and temples, shrines, religious symbols or sites, village ponds or community fishponds, schools, markets, community forest, community grazing land, irrigation canals and facilities, roads, paths, water supply lines and facilities, electricity lines and poles, and communication lines.

Compensation : This is payment given in cash or in kind to AHs as replacement cost for assets, resources or income acquired or adversely affected by the project

Provisional road width : It is the area which is required by the project or by the need to retain
(PRW) sites for future use for construction or for repair and maintenance.

Cut-off date : This refers to the date prior to which the occupation or use of the project area makes residents/users of the same eligible to be categorized as AHs. The cut-off date coincides with the first day of the census of AHs and the inventory of losses (IOL) thereat was conducted; 2nd September 2013 for the existing NR-5 from Thlea Ma'am/PST (PK: 171+000) to Battambang (PK: 282+200) and from Sri Sophorn (PK: 366+250) to Poipet (PK: 402+000), and 30th December 2013 for the Pursat Bypass.

Persons not covered in the census are not eligible for compensation and other entitlements, unless they can show proof that:

- (i) they have been inadvertently missed out during the census and the IOL; or
- (ii) they have lawfully acquired the affected assets following completion of the census and the IOL, and prior to the conduct of the detailed measurement survey (DMS).

Detailed Measurement Survey (DMS)	: The DMS is a measuring activity to be conducted based on the approved detailed engineering drawings to measure and count all affected properties. This activity involves the finalization and/or validation of the results of the IOL, severity of impacts, and list of AHs earlier done during RAP preparation. The final cost of resettlement will be determined after the DMS and updated RCS.
Entitlement	: Refers to a range of measures, such as compensation for loss of affected assets and assistance to be provided to the AHs depending on the type and severity of their losses.
Income restoration	: This involves the re-establishment of sources of income and livelihood of AHs.
Inventory of Losses (IOL)	: This is the process where all fixed assets (i.e., land used for residence, commerce, agriculture, including ponds; dwelling units; stalls and shops; secondary structures, such as fences, tombs, wells; standing crops and trees with commercial value; etc.) and sources of income and livelihood inside the PRW are identified, and their replacement costs calculated. The severity of impact on the affected assets, livelihood and productive capacity of the AHs are also determined.
Land acquisition	: Refers to the process whereby an individual, household, firm or private institution is compelled by the government through the Project's Executing Agency (EA) to alienate all or part of the land it owns or possesses to the ownership and possession of that agency for public purpose in return for compensation at replacement cost.
Relocation	: This is the physical relocation of an AH from his/her pre-project place of residence and/or business.
Replacement cost	: The method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account.
Resettlement plan	: This is a time-bound action plan with budget, setting out the resettlement objectives and strategies, entitlements, activities and responsibilities, and resettlement monitoring and evaluation.
ROW	: ROW is the area, owned or still to be acquired, reserved for public use or for a government project.
Vulnerable group	: These are distinct groups of people who might suffer disproportionately or face the risk of being further marginalized by the effects of resettlement and specifically include: (i) households headed by women with dependents, (ii) disabled household heads with no other means of support, (iii) households falling under the generally accepted indicator for poverty, and (iv) children (younger than 18 years old) and the elderly (older than 60 years old) households who are landless and with no other means of support.

CONTENTS

CURRENCY EQUIVALENTS	i
ABBREVIATIONS	i
UNITS OF MEASUREMENT	ii
DEFINITION OF TERMS	iii
CONTENTS	v
EXECUTIVE SUMMARY	1
1 INTRODUCTION.....	3
1.1 Background.....	3
1.2 Resettlement Plan.....	3
1.3 Project Location and Impact Areas	3
1.4 Measures to Minimize Impacts.....	4
2 LEGAL AND POLICY FRAMEWORK	6
2.1 Legal and Policy Framework in Cambodia	6
2.1.1 Relevant Laws	6
2.1.2 Other Relevant Regulations	8
2.2 Policy Gap Analysis.....	9
3 PROJECT RESETTLEMENT POLICY.....	11
3.1 Objectives	11
3.2 Key Principles.....	11
3.3 The Cut-off Date for eligibility.....	12
3.4 Eligibility.....	12
3.5 Entitlements	13
4 PROJECT IMPACTS.....	19
4.1 Methodology Used in Preparing the Resettlement Plan	19
4.1.1 Data Gathering Instrument.....	19
4.1.2 Survey Team	19
4.1.3 Setting of the Cut-off Date.....	19
4.1.4 Basic Unit Costs Used in the Resettlement Plan	20
4.2 Inventory of Affected Assets	25
4.2.1 Land	25
4.2.2 Main Structures	25
4.2.3 Affected Crops and Trees.....	27
4.3 Impact on Vulnerable Households	28
4.4 Affected Public Assets	29
5 SOCIO-ECONOMIC PROFILE OF THE AFFECTED HOUSEHOLDS	29
5.1 Population and Household Composition	29
5.2 Age structure and Dependency	30
5.3 Marital Status.....	31
5.4 Ethnic Group and Religion	32
5.5 Vulnerable Groups	33
5.6 Literacy	33

5.6.1	Literacy of the Affected Households' Heads and Spouses	33
5.6.2	Adult Literacy (age from 15 years and over)	34
5.7	Educational Attainment of the Population.....	34
5.8	Current School Attendance.....	35
5.9	Affected Households' Head Engaged in Farming and No-farming	35
5.10	Fishing Community.....	36
5.11	Main Sources of Income of Affected Households	37
5.12	Affected Households Income	37
5.13	Credit.....	39
5.14	Sanitation.....	39
5.14.1	Water Sources for Drinking and Cooking.....	39
5.14.2	Toilet.....	40
5.15	Energy Sources for Lighting and Cooking	41
5.16	Transportation.....	41
5.17	Household Appliances.....	42
5.18	Housing Characteristic	42
5.18.1	Dwelling Space by Household	42
5.18.2	Building Material.....	42
5.19	People's Perception of the Project	43
5.19.1	Satisfaction with the Project.....	43
5.19.2	Benefits of the Project.....	43
5.19.3	Perception of Affected Households with Regards to Relocation	44
6	ORGANIZATIONAL FRAMEWORK.....	44
6.1	The Environmental Section of the Project Management Unit (PMU-ES).....	44
6.2	The Inter-ministerial Resettlement Committee (IRC) & the Resettlement Department (RD).....	45
6.3	Provincial Resettlement Sub-Committee	46
7	IMPLEMENTATION SCHEDULE	46
8	PUBLIC PARTICIPATION AND CONSULTATION.....	47
8.1	Participatory Activities in Resettlement Plan's Planning	47
8.2	Public Consultations During Resettlement Action Plan Preparation	48
8.2.1	Schedule of Stakeholder Meetings	49
8.2.2	Key Points Raised and Discussed.....	50
9	GRIEVANCE REDRESS	55
9.1	First Stage, Commune Level	55
9.2	Second Stage, District Office	55
9.3	Third Stage, Provincial Grievance Redress Committee	55
9.4	Final Stage, the Court Procedures.....	55
10	RELOCATION STRATEGY	56
10.1	Preferred Option by Landless AHs	56
10.2	Relocation Strategy	56
10.3	Summary Cost of Resettlement Site Development	57
10.3.1	Resettlement Site at Bakan District	57
10.3.2	Resettlement Site at Moung Reussei District	57

10.3.3	Resettlement Site at Ou Chrov District.....	58
11	INCOME RESTORATION STRATEGY	59
12	COSTS AND BUDGET	59
12.1	Procedures for Flow of Funds.....	59
12.2	Updating of the Compensation Rates.....	59
12.3	Estimated Costs for Resettlement	59
13	MONITORING AND EVALUATION.....	63
13.1	Internal Monitoring.....	63
13.2	External Monitoring.....	63
Appendix 1: Project Information Booklet (English Draft Version)		1
Appendix 2: Terms of Reference for External Monitoring Agency		1
Appendix 3: Terms of Reference for Income Restoration Programs		1
Appendix 4: Inventory of Loss and Socio-Economic Survey Questionnaire Form.....		1
Appendix 5: Reference Tables for Resettlement Budget Calculation		1
Appendix 6: Public Assets will be affected by the project		1

EXECUTIVE SUMMARY

1. In the Kingdom of Cambodia (“Cambodia”), road transport accounts for around 65% of passenger transport, and 70% of freight transport, and plays the most important role in domestic transport. During the civil war in the 70’s and 80’s, most of the roads were deteriorated due to poor (practically non-existent) maintenance. Since 1993, the rehabilitation has progressed with the assistance from multilateral and bilateral development partners.

2. National Road No.5 (NR-5) is the trunk national road connecting the capital city of Phnom Penh to major city of Battambang and then to Bangkok through Thai border city of Poipet. It is also designated as Asian Highway No. 1 (AH-1) or the Southern Economic Corridor of Greater Mekong Sub-region (GMS). However, all the road surface type is double-layered bituminous surface treatment (DBST) and the surface condition is being deteriorated due to rapidly increasing heavy vehicles, as well as inundation/flood except the surface of the sections of 12.6 km from Phnom Penh and between Sri Sophorn and Poipet where asphalt concrete (AC) is adopted to their surfaces.

3. Under such situation, Japan International Cooperation Agency (JICA) dispatched a survey team to Cambodia in November 2010 and reached agreement to conduct the Preparatory Survey on improvement of North Section (between Battambang and Sri Sophorn) and South Section (between Prek Kdam Bridge and Thlea Ma’am) of NR5 and Middle section of NR5. The survey named as “Preparatory Survey for National Road No.5 Rehabilitation Project” started in February 2011. As the result of this survey the North Section (Approx. 68 km) was selected as the high priority section followed by South and Middle sections.

4. Following the RGC's request to ensure sustainable transportation of the NR5, the South Section (Approximately 139Km) has been also surveyed by the consultant team since January 2013. The survey named as “Preparatory Survey for National Road No.5 (South Section) Improvement Project”. From a viewpoint of consistency in road improvement, RGC requested that remaining section of NR5, Middle and End section, (between Thlea Ma’am and Battambang including the bypass around Pursat and between Sri Sophorn and Poipet Section) be surveyed and this survey started in September 2013.

5. Generally, a PRW of the project is within ROW which is the state land, except the one bypass that need to acquire private land for the project implementation. For the Middle Section of the NR 5 Project, the resettlement action plan (RAP) is required to be prepared based on the Cambodian Laws and Regulations and the JICA Guidelines for Environmental and Social Considerations (JICA Guidelines- April 2010). The RAP has been prepared based on census and inventory of losses (IOL), baseline socio-economic survey (SES) and its main contents include scope of land acquisition and resettlement, compensation policy, assistance and allowances, entitlement matrix, role & responsibility, grievance redress mechanism and relocation strategy. During the RAP preparation from September 2013 to February 2014, a number of Stakeholder Meetings (SHM) were also conducted to allow them understand about the Project.

6. The focus of the resettlement policy is to compensate AHs for their lost assets at replacement cost, and provide with rehabilitation assistance to ensure improvement, or at least maintaining their living standards and income to the level they would have without the Project. The cut-off date is the first day of the IOL, which is on 2nd September 2013 for the existing NR-5 and on 30th December 2013 for Pursat Bypass.

7. The IOL was conducted along the existing NR-5 and the Pursat bypass within the PRW of 20 meters from the centerline. Refer to the IOL results, 2,422 households will be affected by the Project. Of the 2,422 AHs, 224 AHs (247 cases) will lose their private land and 819 AHs along NR-5 and the Pursat bypass will lose their main structures (house, house-shop and/or shop/restaurant). A total of 296,069.07 m² of private land in the bypass area, in which

269,026.84 m² (90.87% of the total affected private land) is rice land, will be acquired for the Project. There are a total of 5,792 private trees and 818 public trees of various species and age in NR-5 and the bypass have been counted during the IOL. All affected trees are not commercially grown, meaning, they are sporadically planted.

Affected Households along National Road No.5 and the Pursat Bypasses

Province/District	#AHs by section			Total (AHs)
	Thlea Ma'am to Battambang	Sri Sophorn to Poipet	Pursat Bypass	
Banteay Mean Chey/BMCH	0	562	0	562
Ou Chrov district	0	239	0	239
Poipet City	0	323	0	323
Battambang	848	0	0	848
Moung Reussei district	633	0	0	633
Sangke district	215	0	0	215
Pursat	788	0	224	1,012
Bakan district	722	0	0	722
Kandieng district	0	0	49	49
Krakor district	29	0	0	29
Pursat City	37	0	175	212
Total (the Project)	1,636	562	224	2,422

Data source: Project Survey conducted from September 2013 to January 2014

8. The estimated costs for resettlement and land acquisition based on the RCS and the IOL during the project preparatory study is USD 8,059,913.55, which includes cash compensation, assistance and reinstate public assets for USD 6,888,815.00, external monitoring and income restoration of USD 482,217.05, administration cost of 5% equivalent to USD 344,440.75, and contingency of 5% or equivalent to USD 344,440.75. The Government will ensure timely provision of funds for resettlement costs and will meet any unforeseen obligations in excess of the resettlement budget in order to satisfy resettlement objectives (*Appendix 5: Reference Tables for Resettlement Budget Calculation*). The resettlement estimated cost will be updated during the resettlement implementation based on the Detailed Measurement Survey (DMS) and the updated RCS.

9. The consultation meetings with AHs were conducted with participation from commune/village leaders. The purpose of the meeting is to inform the AHs about the Project, land acquisition, IOL survey schedule and cut-off date. There were questions and answers recorded in the minutes of meetings. The key questions raised include replacement value and options for resettlement. Following the public meetings, the survey team carried out house-to-house measurements of assets to be affected and they were interviewed for SES. AHs were assured that they would be paid at replacement cost reflecting the current market price, and as per the entitled matrix, which will be disclosed to the affected people/community. More consultation meetings will be conducted during the RAP updating and implementation.

1 INTRODUCTION

1.1 Background

1. In the Kingdom of Cambodia (“Cambodia”), road transport accounts for around 65% of passenger transport, and 70% of freight transport, and plays the most important role in domestic transport. During the civil war in the 70’s and 80’s, most of the roads were deteriorated due to poor (practically non-existent) maintenance. Since 1993, the rehabilitation has progressed with the assistance from multilateral and bilateral development partners.

2. National Road No.5 (NR-5) is the trunk national road connecting the capital city of Phnom Penh to major city of Battambang and then to Bangkok through Thai border city of Poipet. It is also designated as Asian Highway No. 1 (AH-1) or the Southern Economic Corridor of Greater Mekong Sub-region (GMS). However, all the road surface type is double-layered bituminous surface treatment (DBST) and the surface condition is being deteriorated due to rapidly increasing heavy vehicles, as well as inundation/flood except the surface of the sections of 12.6 km from Phnom Penh and between Sri Sophorn and Poipet where asphalt concrete (AC) is adopted to their surfaces.

3. Under such situation, Japan International Cooperation Agency (JICA) dispatched a survey team to Cambodia in November 2010 and reached agreement to conduct the Preparatory Survey on improvement of North Section (between Battambang and Sri Sophorn) and South Section (between Prek Kdam Bridge and Thlea Ma’am) of NR5 and Middle section of NR5. The survey named as “Preparatory Survey for National Road No.5 Rehabilitation Project” started in February 2011. As the result of this survey the North Section (Approx. 68 km) was selected as the high priority section followed by South and Middle sections.

4. From a viewpoint of consistency in road improvement, RGC requested that remaining section of NR5, Middle and End section (between Thlea Ma’am and Battambang including the bypass around Pursat and between Sri Sophorn and Poipet Section) be surveyed and this survey started in September 2013.

1.2 Resettlement Plan

5. Generally, a PRW of the project is within ROW which is the state land, except the one bypass that need to acquire private land for the project implementation. For the Middle Section of the NR 5 Project, the resettlement action plan (RAP) is required to be prepared based on the Cambodian Laws and Regulations and the JICA Guidelines for Environmental and Social Considerations (JICA Guidelines- April 2010). The RAP has been prepared based on census and inventory of losses (IOL), baseline socio-economic survey (SES) and its main contents include scope of land acquisition and resettlement, compensation policy, assistance and allowances, entitlement matrix, role & responsibility, grievance redress mechanism and relocation strategy. During the RAP preparation from September 2013 to February 2014, a number of Stakeholder Meetings (SHM) were also conducted to allow them understand about the Project.

1.3 Project Location and Impact Areas

6. NR-5 runs basically to the north through Kandal (KDL), Kampong Chhnang (KCHN), Pursat (PST) Battambang (BTB) and Banteay Mean Chey (BMCH) provinces (see Figure 1-1 for the Project location map). The study has focused only on the Middle Section of NR-5 with an approximate length of 130 km, starting from PK: 171+000 in Thlea Ma’am, Krakor District, Pursat Province, to PK: 282+200 in Battambang, Krakor District, Pursat Province; and End section with an approximate length of 36km, starting from PK: 366+250 in Teuk Thla , Sri Sophorn City to PK: 402+000 in Stueng Bott, Poipet City, Banteay Mean Chey province, and

one Bypass in Pursat City. The bypass will run through in Pursat City and Kandieng district, with length of 8.80 km.

Table 1-1: Province and district traversed by NR #5 and Pursat bypasses

Province/District	#AHs by section			Total (AHs)
	Thlea Ma'am to Battambang	Sri Sophorn to Poipet	Pursat Bypass	
Banteay Mean Chey/BMCH	0	562	0	562
Ou Chrov district	0	239	0	239
Poipet City	0	323	0	323
Battambang	848	0	0	848
Moung Reussei district	633	0	0	633
Sangke district	215	0	0	215
Pursat	788	0	224	1,012
Bakan district	722	0	0	722
Kandieng district	0	0	49	49
Krakor district	29	0	0	29
Pursat City	37	0	175	212
Total (the Project)	1,636	562	224	2,422

Data source: Project Survey conducted from September 2013 to January 2014

1.4 Measures to Minimize Impacts

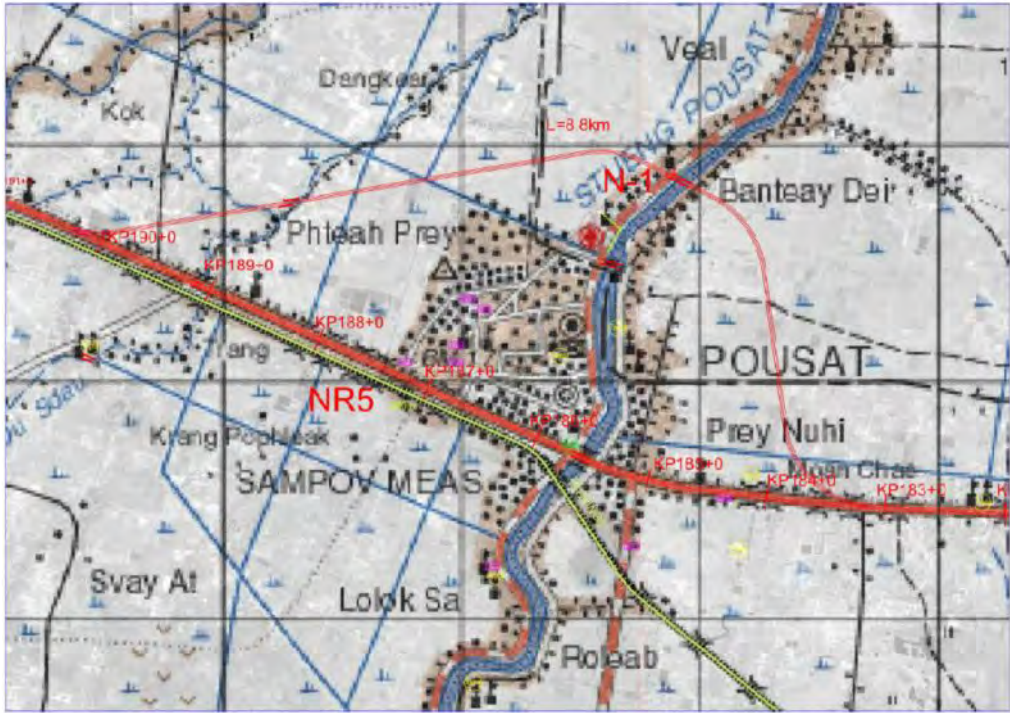
7. Measures to reduce resettlement impacts include the following:

- (i) Resettlement impacts will be minimized for the Project by building the Pursat bypass rather than enlarging the existing road sections in populous areas at Pursat City. As a study result, the proposed bypass at Pursat City will reduce the affected main structures (house, house cum shop and restaurant) from 193 to 17.
- (ii) The PRW (20m-20m) is narrow than the ROW (30m-30m) to minimize resettlement impact too.
- (iii) Where platforms, ramps, culverts and similar structures serve as access to buildings from the road embankment, these will be removed to allow construction to proceed, and replaced as soon as construction is completed.
- (iv) At locations where underground infrastructure are damaged, relocated or otherwise affected temporarily or permanently due to civil works for road improvement, such will be repaired, replaced and restored by the contractor to pre-project functional conditions as soon as construction is completed.

Figure 1-1: Project Location Map



Figure 1-2: Pursat Bypass Location Map



2 LEGAL AND POLICY FRAMEWORK

8. Cambodia has experienced severe social, economic, and political turmoil during the last quarter century. Before the Khmer Rouge came to power in 1975, private land ownership was widespread and governed by *the Cambodia Civil Code of 1920*. Under the Khmer Rouge from 1975 to 1979 however, private property was abolished and all records were destroyed. After the said regime, the new government introduced usufruct rights to facilitate orderly occupation by people returning to urban areas, of vacant land and structures. However, all lands in Cambodia remained under the property of the state until private ownership on residential land of maximum 2,000m² was restored in 1989. The current legislations governing land ownership is *the Land Laws of October 1992 and of August 2001*, which recognize claims to land made after the downfall of the Khmer Rouge in 1979. In this background, the fundamental system for “resettlement”, which are i) land management system, ii) policy and system for land acquisition, illegal occupation, and resettlement, and iii) methodology to fill up the gap between Development Partners’ (DPs’) policy on resettlement and the Cambodian laws and regulations related to resettlement, are still improving. Therefore, compromise between them is necessary in terms of dealing with resettlement issues caused by development projects.

2.1 Legal and Policy Framework in Cambodia

2.1.1 Relevant Laws

(a) 1993 Constitution

9. *The 1993 Constitution of Cambodia* has established one governing principle in Article 44 pertaining to land acquisition.

10. **Article 44** states that “All persons, individually or collectively, shall have the right to ownership. Only Khmer legal entities and citizens of Khmer nationality shall have the right to own land. Legal private ownership shall be protected by law. The right to confiscate properties from any persons shall be exercised only in the public interest as provided for under the law and shall require fair and just compensation in advance.”

(b) Land Law

11. The rights to land and property in Cambodia are governed by *the 2001 Land Law*, which are primarily based on the provisions of *the 1993 Constitution*. The law defines the scope of ownership of immovable properties, such as land, trees and fixed structures.

12. The Land Law, **Article 5**, states that “No person may be deprived of his ownership, unless it is in the public interest. Any ownership deprivation shall be carried out in accordance with the governing procedures provided by law and regulations, and after the payment of fair and just compensation in advance.”

13. Other provisions of the Land Law that are relevant to land acquisition, compensation and resettlement include:

- Only legal possession as provided by law can be transformed to land ownership. (**Article 6**)
- Any regime of ownership of immovable property prior to 1979 shall not be recognized. (**Article 7**)
- **Article 15** states that “*the following properties are included as public properties of state and public legal entities: a) any property that has a natural origin, such as forests, courses and banks of navigable and floatable rivers or natural lakes and seashores; b) that is made available for public use such as quays of harbors, port,*

railways, railways station and airports; or, c) any property which is made available, either in its natural state or after development, for public use such as roads, tracks, oxcart ways, pathways, gardens or public parks and reserved lands.”

- **Article 18** states that *"the following are null and void and cannot be made legal in any form whatever: a) any entering into possession of public properties of State and public legal entities and any transformation of possession of private properties of State into ownership rights that was not pursuant to the legal formalities and procedures that have been stipulated prior to that time, irrespective of the date of creation of possession or transformation; e) any entering into possession of private properties of State, through any means, that occurs after this law comes into effect"*.
- **Article 19** states that *"any persons whose land title or factual circumstance fall within the scope of **article 18** of this law shall not have the right to claim compensation or reimbursement of expenses paid for the maintenance or management of immovable property that was illegally occupied. Any illegal and intentional or fraudulent acquisition of public properties of state or of public legal entities shall be penalized pursuant to article 259 of this law. The penalties shall be doubled where any occupation of public properties because damages or delay to works undertaken in the general interest, especially the occupation of roadway reversed land"*.
- Ownership of immovable properties described in **Article 25** is granted by the state to indigenous minorities¹ as collective ownership. This collective ownership includes all of the rights and protections as enjoyed by private owners. The exercise of collective ownership rights shall be subject to the responsibility of the traditional authorities and decision-making mechanisms of the indigenous community, according to their customs and subject to the laws of general enforcement related to immovable property such as *the law on environmental protection. (Article 26)*
- Persons with legally valid possession of land for five years (at the time the law came into effect) are allowed to be registered as the owner of the land (**Article 30**). Persons who (at the time the law came into effect) held legal possession but had not yet completed the five years were allowed to remain in possession until they were eligible to be registered as the owner. (**Article 31**)
- Any beginning of occupation for possession shall cease when this law comes into effect (**article 29**). After this law comes into force, any new occupant with title to an immovable property belonging to the public bodies or private persons shall be considered as illegal occupant and shall be subject to the penalties provided in **Article 259** of this Law (**Articles 34**).
- **Article 38** states that *"in order to transform into ownership of immovable property, the possession shall be unambiguous, non-violent, and notorious to the public, continuous and in good faith"*.
- Landless people may apply for land for residential and subsistence farming purposes at no cost, as part of a social land concessions scheme. The

¹ As per Article 23 of the Land Law, *"An indigenous community is a group of people that resides in Cambodia whose members manifest ethnic, social, cultural and economic unity and who practice a traditional lifestyle, and who cultivate the lands in their possession according to the customary rules of collective use."*

concessionaire may obtain ownership of this land after fulfilling conditions set out in a separate *Sub-Decree on Social Land Concessions*. (**Articles 50, 51**).

(c) Expropriation Law Dec. February 2010 - procedures for acquiring private properties for national or public interest

14. **Article 2:** the law has the following purposes: (i) ensure reasonable and just deprivation of a legal right to ownership of private property; (ii) ensure payment of reasonable and just prior compensation; (iii) serve the public and national interests; and (iv) development of public physical infrastructure.

15. **Article 7:** Only the state may carry out an expropriation for use in the public and national interests.

16. **Article 8:** The state shall accept the purchase of the remaining part of the real property left over from an expropriation at a reasonable and just price at the request of the owner of land/or the holder of rights in the expropriated real property, if he is no longer able to live near the expropriated scheme or build a residence or conduct any business.

17. **Article 12:** An Expropriation Committee shall be established and headed by a representative from the Ministry of Economy and Finance, and other representatives from concerned ministries/institutions.

18. **Article 13:** An Expropriation Sub-Committee acting as the secretariat of the Expropriation Committee shall be established and headed by the provincial/municipal governor and composed of representatives from relevant specialized provincial departments and authorities.

19. **Article 16** states that “Prior to make any expropriation project proposal, the Expropriation Committee shall conduct a public survey by recording of a detailed description of all entitlements of the owners and/or of the holder of real right to immovable property and other properties subject to compensation as well as recording of all relevant issues.

20. In conducting the survey, the Expropriation Committee shall organize public consultations at the Capital, Municipal-Provincial, and District-Khan authority levels with Commune/Sangkat councils and Village or community representative to be affected by the expropriation to provide specific and concise information and collect inputs from all stakeholders regarding the proposed basic public infrastructure project.

21. In order to set a dateline for the expropriation or relocation or compensation, the Expropriation Committee shall conduct a dateline interview with all concerned parties about the issues of immovable property to be affected by the public physical infrastructure project.

22. Within 30 (thirty) working days after the completion of the survey, the Expropriation Committee shall produce a report with recommendations and submits it to the Royal Government for approval.”

23. **Article 22:** Stipulates the amount of compensation to be paid to the owner of and/or holder of rights in the real property, which is based on the market value of the real property or the replacement cost as of the date of the issuance of the *Prakas* on the expropriation scheme. The market value or the replacement cost shall be determined by an independent commission or agent appointed by the expropriation committee.

2.1.2 Other Relevant Regulations

24. The private ownership of land was re-established in 1989, and confirmed in *the 2001 Land Law* (**Article 4**). Cambodians are able to register the land they occupy with the local Cadastral Administration Office, whereupon a certificate of land title is granted. Issuing land

titles is a lengthy process and most offices have a major backlog of applications. People are given a receipt and until the official title deed is issued, this receipt is accepted as a proof of real occupant of the land for land purpose or sale.

25. The present legal status of land use in Cambodia can be classified as follows:

- (i) **Privately owned land with title:** The owner has official title to land, and both owner and the Cadastral Administration Office have a copy of the deed.
- (ii) **Privately owned land without title:** The owner has made an application for title to land, and is waiting for the issuance of a title deed. The Cadastral Administration Office recognizes the owner.
- (iii) **Land use rights certified by the Government:** In this case, a receipt for long-term land use has been issued. This land use right is recognized by the Cadastral Administration Office.
- (iv) **Lease land:** The Government or private owners lease the land, usually for a short period. There is provision for the owner to reclaim land if it is needed for development.
- (v) **Non-legal occupation:** The user has no land use rights to State land that he occupies or uses. The Cadastral Administration Office does not recognize the use of this land.

26. **Sub-Decree on Social Land Concession, March 2003** - provides for allocations of free private state land to landless people of residential or family farming, including the replacement of land lost in the context of involuntary resettlement.

27. **Prakas No.6**, entitled “*Measures to Crack Down on Anarchic Land Grabbing and Encroachments*”, sets ROW for road and railway. In support of this *Prakas*, MEF on 6 April 2000 issued Decree No.961 prohibiting compensation for structures and other assets located in the ROWs. Some Road dimensions are modified by *the Sub-decree No.197* adopted on 23 November 2009 on to Management of ROW along the national road and railway in Cambodia.

Table 2-1: Road and Railways ROW Dimensions

Road Category	ROW Dimensions under Prakas No.06	ROW Dimensions under Sub-decree No.197
NR-1, 4, and 5	30 m from the centreline	30 m from the centreline
Other 1-digit NRs	25 m from the centreline	30 m from the centreline
2-digit NRs	25 m from the centreline	25 m from the centreline
Provincial roads	20 m from the centreline	not specified
Commune roads	15 m from the centreline	not specified
Railway outside city, province and crowned place	30 m from the centreline	30 m from the centreline
Railways in forest area	100 m from the centreline	100 m from the centreline

Source: JICA Study Team

2.2 Policy Gap Analysis

28. Law and regulation framework on resettlement and land issues are still in the stage of development in Cambodia, and some implementation documents and institutions are not yet prepared completely, however, RGC understands such situation and DPs’ safeguard policies, and considers supplemental measures and assistance in RAP on a case by case.

29. Thus, in terms of practical operation, there is not so much crucial gap between Cambodian country system and JICA Guidelines’ concept and requirements (see Table 2-2). Some other discussing points which are not mentioned clearly or concretely in Cambodian

country system are also considered based on JICA Guidelines, RAP, and other relevant documents to fulfil gaps.

Table 2-2: Verification of and Comparison between Cambodian System and JICA Guidelines for Environmental and Social Considerations (April 2010)

No.	Item	JICA Guidelines Policy	Law/Regulation in Cambodia (officially promulgated)	Actual Operation (Gap Filling Measures)
1	Support system for socially vulnerable groups	It is necessary to give appropriate consideration to vulnerable groups.	<i>Sub-Decree on Social Land Concession</i> provides allocations of free private state land to landless people of residential or family farming, including the replacement of land lost in the context of involuntary resettlement.	Income restoration program (IRP) and assistance (allowance) to vulnerable groups will be prepared based on their preference.
2	Assistance to restore and improve living standards	Living standards and income opportunities, and production levels of project affected people should be improved or at least restored to pre-project levels.	The government has no clear policy or procedure to restore the livelihood of AHs.	Income restoration program (IRP) will be prepared based on their preference.
3	Enhancement of public participation in planning and implementation of RAP	Appropriate participation of affected people and their communities should be promoted in planning, implementation and monitoring of involuntary AHs and measures taken against the loss of their means of livelihood.	It is clearly declared in <i>the Expropriation Law (Article 16)</i> that in conducting a survey of entitlements, public consultations shall be organized to provide specific and concise information and collect inputs from all stakeholders regarding the proposed basic public infrastructure project and that a dateline interview with all concerned parties shall be conducted.	Stakeholder meetings and interview of AHs shall be conducted at appropriate stages according to JICA Guidelines and <i>the Expropriation Law</i> .
4	Compensation for land acquisition with replacement cost	Prior compensation will be done with replacement cost, which means that compensation for lost assets must be made in full amount at replacement cost and at current market price.	The amount of compensation to be paid to the owner of and/or holder of real right to the immovable property shall be based on the market price or replacement cost as of the date of the issuance of the declaration on the expropriation project.	AHs will be compensated at replacement cost. The replacement cost will be calculated based on the detailed measurement survey just before implementing resettlement.

No.	Item	JICA Guidelines Policy	Law/Regulation in Cambodia (officially promulgated)	Actual Operation (Gap Filling Measures)
			(the <i>Expropriation Law</i> (Article 22))	
5	AHs residing in the Project affected area before cut-off date	People to be resettled involuntarily and those whose means of livelihood will be hindered or lost should be sufficiently compensated and supported by the project proponents in appropriate time.	Under the <i>Land Law 2001</i> , those who have occupied ROW or public property are not entitled to any compensation or social support.	Assistance to AHs who are residing in the Project affected area (including public state land) at the time of cut-off date will be prepared (Compensation for properties without land is compensated at replacement cost and resettlement site will be prepared for landless AHs).
6	Grievance redress mechanism	Grievance redress system must be formulated and must function appropriately.	Grievance redress system is stipulated in the <i>Expropriation Law</i> ; however, it has provisions to exclude public infrastructure projects.	Grievance redress system will be formulated.

Source: JICA Study Team

3 PROJECT RESETTLEMENT POLICY

3.1 Objectives

30. The objective of the Project Resettlement Policy is to ensure that AHs are not worse off because of the Project. The Project should provide an opportunity for the local population to derive benefits from it, and it should likewise serve as an occasion for the local population to participate in its planning and implementation, thereby engendering a sense of ownership over the same.

3.2 Key Principles

31. The key principles of the resettlement policy are as follows:

- (i) Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. When, after such an examination, avoidance is proved unfeasible, effective measures to minimize impact and to compensate for losses must be agreed upon with the people who will be affected.
- (ii) People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by RGC in a timely manner. Prior compensation, at full replacement cost, must be provided as much as possible. RGC must make efforts to enable people affected by projects and to improve their standard of living, income opportunities, and production levels, or at least to restore these to pre-project levels. Measures to achieve this may include: providing land and monetary compensation for losses (to cover land and property

losses), supporting means for an alternative sustainable livelihood, and providing the expenses necessary for the relocation and re-establishment of communities at resettlement sites.

- (iii) Appropriate participation by affected people and their communities must be promoted in the planning, implementation, and monitoring of resettlement action plans and measures to prevent the loss of their means of livelihood. In addition, appropriate and accessible grievance mechanisms must be established for the affected people and their communities.
- (iv) Resettlement action plans must be prepared and made available to the public. In preparing a resettlement action plan, consultations must be held with the affected people and their communities based on sufficient information made available to them in advance. When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people.

3.3 The Cut-off Date for eligibility

32. For the project, the cut-off date coincides with the first day of the census of AHs and the Inventory of Loss (IOL) survey was conducted. The cut-off date for the existing NR-5 from Thlea Ma'am/PST (PK: 171+000) to Battambang (PK: 282+200) and from Sri Sophorn (PK: 366+250) to Poipet (PK: 402+000) is on **2nd September 2013**, and for Pursat Bypass is on **30th December 2013**. This would mean that any land occupation or transfer, or structures to be built on affected land after the cut-off date will not be entitled to any compensation including the land use right.

33. The cut-off date was informed to AHs at stakeholder meetings before and after the cut-off dates at stakeholder meetings during RAP preparation stage. At those meetings, AHs were informed that all structures constructed after the cut-off date (IOL survey) will not be entitled for any compensation from the Project, and that all people have to stop constructing any new buildings in the delineated area. The information will be continuously disseminated to prevent further population influx.

3.4 Eligibility

34. Persons not covered in the census are not eligible for compensation and other entitlements, unless they can show proof that:

- (i) They have been inadvertently missed out during the census and the IOL and certified by local authorities; or
- (ii) They have lawfully acquired the affected assets following completion of the census and the IOL and prior to the conduct of the DMS.

35. Eligible AHs include anyone who, at the cut-off date of the Project, was located within the Project area or any of its component or subproject or part thereof, and would have their:

- (i) Standard of living adversely affected;
- (ii) Right, title or interest in any house, land (including residential, commercial, agricultural and for grazing), water resources, or any other movable or fixed assets acquired or possessed, in full or in part, temporarily or permanently by public sector acquisition; or
- (iii) Business, occupation, place of work or residence or habitat adversely affected by public sector intervention.

36. An AH refers to households and consists of all members residing under one roof and operating as a single economic unit, who are adversely affected by the Project. For resettlement

purposes, Project AHs will be considered as members of the Project AHs including single person households.

3.5 Entitlements

37. The project entitlements were developed and presented as shown in Table 3-1: Entitlement Matrix. The entitlements adopted were guided by the applicable national laws and regulations and JICA Guidelines. The entitlements and assistance may be revised based on the actual status of impact, as necessary, in the updated version of this RAP.

Table 3-1: Entitlement Matrix

TYPE OF LOSS	ELIGIBLE PERSONS	ENTITLEMENTS	IMPLEMENTATION ISSUES
A. LOSS OF LAND			
OUTSIDE ROW (PRIVATE LAND)			
I. Loss of Land (all kinds); Either Partial or Entire Land is Lost	All Affected Households (AHs) with recognized proof of ownership whose land will be acquired (for the construction of bypass roads in Pursat City).	AHs have two options: 1) Land replacement (land to land): Land replacement will be provided with similar land quality and productivity potential. 2) cash compensation at replacement cost.	<ul style="list-style-type: none"> AHs to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will be acquired by the project. IRC will ensure payment of all compensation and allowances for which AHs are entitled to at least <u>30 days</u> prior to the scheduled start of civil works. IRC will support the AHs to separate or transform the affected land title certificate. Cost of the procedure will be borne by RGC.
INSIDE ROW (PUBLIC STATE LAND)			
I. Partial Loss of Residential and / or Commercial Land, in which the remaining land is STILL VIABLE for continued use	AHs with main house and/or small shop (independent/family-owned business)	<ul style="list-style-type: none"> AHs must be removed entirely from PRW and no cash compensation is available for affected land in ROW. No new permanent structures (i.e. structures on a foundation or wooden house larger than the affected one) are permitted to be constructed in the ROW. 	<ul style="list-style-type: none"> AHs to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will be acquired by the project. IRC will ensure payment of all compensation and allowances for which AHs are entitled to at least <u>30 days</u> prior to the scheduled start of civil works. Remaining ROW is still public state land.
II. Entire Loss of Residential and/or Commercial Land, or the remaining	AHs with main house and/or small shop (independent/family-owned business) and	<ul style="list-style-type: none"> No cash compensation for affected land in ROW. The landless AHs have two options: 	<ul style="list-style-type: none"> AHs to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will

TYPE OF LOSS	ELIGIBLE PERSONS	ENTITLEMENTS	IMPLEMENTATION ISSUES
land is NOT VIABLE ² for continued use (Landless AHs)	no more remaining land.	<p>1) Self relocation: receive in lump sum \$5,000.00³ per landless AH as cash assistance plus cash compensation for their affected assets.</p> <p>2) Group relocation: a resettlement site (RS) nearby villages will be provided by the government;</p> <ul style="list-style-type: none"> ▪ A land plot per landless AH will be 7.0m x 15.0m = 105.00m². ▪ Basic infrastructures such as access roads, latrines, drainages, and pumping wells will be provided as part of resettlement development. Electricity connection will also be provided if available in the area. However, AHs will bear the security deposit for electricity consumption required by service provider because the deposit will be refunded to AHs once the consumption is terminated. ▪ Land title for the land plot in the resettlement site with names of husband and wife will be provided to each household after five consecutive years of living on the land at no cost. 	<p>be acquired by the project.</p> <ul style="list-style-type: none"> ▪ Each self relocate landless AHs will receive the cost for resettle by calculating in average from the Cost Estimate of each RS (see in appendix5 or section 10-3), plus cash compensation for their affected assets. The estimate cost in each site should be updated during DMS phase. ▪ IRC will ensure payment of all compensation and allowances for which AHs are entitled to at least <u>30 days</u> prior to the scheduled start of civil works. ▪ IRC will ensure allocation of cash or replacement land with sufficient time (at least <u>90 days</u>) for AHs to rebuild and relocate completely before the scheduled start of civil works. ▪ IRC will support the AHs to acquire land title certificate after five consecutive years of AHs' living on the land. Cost of the procedure will be borne by RGC. ▪ Remaining ROW is still public state land.

² The remaining unaffected portion cannot accommodate purpose of activity/structure covered within the affected section. The size of viable land will be discussed between IRC-WG and the AHs during the detailed measurement survey.

³ The amount will be studied once again the DMS is conducted.

TYPE OF LOSS	ELIGIBLE PERSONS	ENTITLEMENTS	IMPLEMENTATION ISSUES
III. Loss of Productive Land Use ; Either Partial or Entire Land is Lost	All AHs occupying land or using land in the Provisional Road Width (PRW)	<ul style="list-style-type: none"> No cash compensation is available for affected land in ROW. See also [C. LOSS OF CROPS AND TREES] 	<ul style="list-style-type: none"> AHs to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will be acquired by the project. AHs will not be moved from the ROW outside the PRW without justifiable cause (i.e. unless or until the land is required by the government for road improvement purposes). Remaining ROW is still public state land.
B. LOSS OF STRUCTURES			
I. Loss of Houses or Shop/Store; Either Partial or Entire Structure is Lost	All the AHs confirmed to be residing in, doing business or having right over resources within the project affected area during the conduct of IOL and census of AH (on Cut -off Date)	<ul style="list-style-type: none"> Cash compensation at replacement cost without deduction for depreciation or salvageable materials (i.e. present cost of construction materials in the locality plus cost of labor). AHs are also entitled to have transport (moving) allowance (cf. Item E). 	<ul style="list-style-type: none"> AHs to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will be acquired by the project. AHs to get cash compensation at least <u>30 days</u> ahead of civil works in the locality to allow the AHs sufficient time to gradually reorganize the house and/or shop, thereby avoiding any disruption in their livelihood. AHs must completely cut, move back or relocate their houses/structures to new site within <u>30 days</u> after receiving compensation. If the structure is found no longer viable for living, compensation will be paid for the entire structure and the AH will also be entitled to other allowances.
	Renters	<p>Renters are entitled to get allowances as below:</p> <ul style="list-style-type: none"> Transportation (moving) allowance: USD 40 Disruption allowance: A lump sum cash assistance of USD 45 Rental allowance: 	<ul style="list-style-type: none"> AHs to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will be acquired by the project. IRC will ensure payment of all allowances for which AHs are entitled to at least <u>30 days</u> prior to the scheduled start of civil

TYPE OF LOSS	ELIGIBLE PERSONS	ENTITLEMENTS	IMPLEMENTATION ISSUES
		<ul style="list-style-type: none"> equivalent to two months' rent of a similar building in the locality. If AH belongs to any of the vulnerable group, see Item E. Provision of information in finding alternate rental accommodation. 	<ul style="list-style-type: none"> works. AHs that rent house and/or shop are entitled to a one time transport allowance only.
II. Other Structures (porch, extended eaves, spirit house, fence, etc.)	All the AHs confirmed to be residing in, doing business or having right over resources within the project affected area during the conduct of IOL and census of AH (Cut- off Date)	<ul style="list-style-type: none"> Cash compensation at replacement cost without deduction for depreciation or salvageable materials (i.e. present cost of construction materials and labor in the locality). 	<ul style="list-style-type: none"> AHs to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will be acquired by the project. IRC will ensure payment of all allowances for which AHs are entitled to at least <u>30 days</u> prior to the scheduled start of civil works.
C. LOSS OF CROPS AND TREES			
I. Loss of Crops	Owners of crops regardless of land tenure status	<ul style="list-style-type: none"> To the extent possible, AHs will be allowed to harvest their annual and perennial crops prior to construction. If crops cannot be harvested due to construction schedule, AHs are entitled to cash compensation for the affected crops at replacement cost. 	<ul style="list-style-type: none"> Annual Crops – AHs will be given <u>90 days'</u> notice that the land on which their crops are planted will be used by the project and that they must harvest their crops before the civil work. Remaining ROW is still public state land.
II. Loss of Fruit or Shade Trees	Owners of trees regardless of land tenure status	<ul style="list-style-type: none"> Fruit trees will be compensated in cash at replacement cost. 	<ul style="list-style-type: none"> AHs to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will be acquired by the project. Remaining ROW is still public state land.
D. LOSS OF COMMON PROPERTY RESOURCES			
I. Partial or Entire Loss of Community and/or Public Assets	Affected communities or concerned government agencies who own the assets	<ul style="list-style-type: none"> Replacement by similar structures and quality at the area identified in consultation with affected communities and relevant authorities. 	<ul style="list-style-type: none"> Communities to be notified at least <u>90 days</u> in advance before the start of civil works in the locality of the actual date that the land will be acquired by the project. Remaining ROW is still public

TYPE OF LOSS	ELIGIBLE PERSONS	ENTITLEMENTS	IMPLEMENTATION ISSUES
			state land.
E. ALLOWANCES AND ASSISTANCES			
I. Transport (moving) Allowance	AHs that relocate their house or house/shop	<ul style="list-style-type: none"> Shops and stalls made of light and temporary materials: USD 5 to USD 10 (depending on the scale of the structures to be relocated) Regular shops and houses moving to residual or adjacent areas: USD 40 Regular shops and houses relocating within the same village outside of the ROW: USD 60 Houses relocating in another village outside of the ROW: USD 70 	<ul style="list-style-type: none"> Owners of houses or houses/shops are entitled to a one time transport allowance only. Remaining ROW is still public state land.
II. Severely Affected Households and/or Vulnerable AHs Allowance	Severely affected households ⁴ and Vulnerable AHs	<ul style="list-style-type: none"> One time cash assistance equivalent to USD 100 per Severely Affected households and/or Vulnerable AHs. See also [V. <i>Income Restoration Program (IRP)</i>] 	<ul style="list-style-type: none"> As indicated above, relocating landless AHs are entitled to replacement land with title at no cost
III. Disruption Allowance	Relocating AHs to residual or adjacent areas (whose house type 1A to 2G) with floor area is less than 60m ² .	One time cash assistance equivalent to USD 35.	Allowance shall be paid at the same time with compensation.
	Relocating AHs to residual or adjacent areas (whose house type 1A to 2G) with floor area is 60m ² or more.	One time cash assistance equivalent to USD100.	
	Relocating AHs to residual or adjacent areas (whose house type from 2H or higher)	One time cash assistance equivalent to USD150.	

⁴ “Severely affected households” include but not limited to the AHs who will (i) lose 10% or more of their total productive land (income generating) and/or assets, and (ii) have to relocate due to the Project.

TYPE OF LOSS	ELIGIBLE PERSONS	ENTITLEMENTS	IMPLEMENTATION ISSUES
	▪ Relocating AHs to a new village or resettlement site	▪ One time cash assistance equivalent to USD200.	
IV. Temporary loss of business income during relocation	Owners of shop who relocate their shop	Lump sum cash assistance of USD50.	
V. Income Restoration Program (IRP)	Severely affected households and Vulnerable Ahs	▪ Entitled AHs will be provided for two options. Option 1: Cash assistance ⁵ for income restoration or Option 2: the Income Restoration Program (IRP).	▪ The two options will be include in the contents for public consultation meetings with entitled AHs. ▪ The implementation will follow their preference.
F. TEMPORARY IMPACTS DUE TO ROAD CONSTRUCTION AND MAINTENANCE			
I. Affected assets during construction	Owners of assets	<ul style="list-style-type: none"> ▪ Compensation for lost assets in cash at replacement cost, or ▪ Compensation as leasing fee based on replacement cost, and temporarily affected land will be returned to original owner/occupant. 	<ul style="list-style-type: none"> ▪ Contractor will be required by contract to pay these costs. ▪ Construction and maintenance will be carried out so as to minimize damage. ▪ Construction will be required by contract to stay within PRW. ▪ As part of the civil works contract, all access roads/driveways to properties adjacent to the road will be repaired or replaced including culverts and other facilities, to a condition equal to or better than at present. ▪ The disruption period will be minimized as much as possible. ▪ The contractor will repair the land back to its original condition before returning to the owners.
II. Damage to fields and private or community infrastructure including bund walls, drains and channels, etc.	Owners or persons using the field	▪ Repair of damage or payment for repair of damage at replacement cost.	

Source: JICA Study Team

⁵ The cash assistance for income restoration program will be determined during the DMS or replacement cost study update.

4 PROJECT IMPACTS

4.1 Methodology Used in Preparing the Resettlement Plan

38. The following sections describe the processes and methods employed in the survey on adverse social impacts for improving NR-5. The impact survey involved the conduct of IOL wherein all fixed assets (i.e., lands used for residence, commerce, agriculture, including ponds; dwelling units; stalls and shops; miscellaneous structures, such as fences, wells, trees with commercial value; etc.) located inside the PRW were identified, measured. The owners of those properties were identified, and their replacement values were also calculated. Likewise, the severity of impact on the affected assets and to the livelihood and productive capacity of AHs were determined. Photographs of the affected assets along with the AHs had also been taken. Also, information on the members of the AHs, sources of livelihood, income level, and ownership of productive assets had been gathered. The impacts survey and census of AHs were conducted from September 2013 to January 2014.

4.1.1 Data Gathering Instrument

39. The basic tool used in the IOL and census of AHs was the survey questionnaire. Detailed socio-economic information on AHs whose main structures (i.e., houses and shops excluding government buildings) will be partially or entirely affected was obtained with the use of the survey questionnaire in Khmer. The questionnaire covered concerns on socio-economic conditions of the AH, in addition to basic information on the household head, such as gender, age, educational attainment, and primary source of income. It also included the affected assets and income, and their perception on the Project (see *Appendix 4: Inventory of Loss and Socio-Economic Survey Questionnaire Form* for a copy of the impact survey questionnaire).

4.1.2 Survey Team

40. In addition to the Study Team leader (resettlement specialist), a recruited team of 46 local research assistants including one field survey coordinator, 3 field supervisors, 18 enumerators, 15 local assistants, 3 data entry clerks, one data developer, and 4 replacement cost (market rates) researchers, including one field team leader, was organized to help prepare this RAP. Except for the data developer, the rest of the local research assistants were based in the field. The survey team is divided into 3 IOL-SES survey groups and one RCS survey group. Each IOL-SES survey group included one supervisor, 6 enumerators, 5 local assistant (for measuring), one data entry clerk and local authorities. Field data gathering for NR-5 (between Thlea Ma'am – Battambang and between Sri Sophorn – Poipet) commenced on 2st September 2013 and was completed on 12th December 2013, while for Pursat Bypass it was studied from 30th December 2013 until 15th January 2014. The research team was accompanied by commune or village officials during their data gathering activities.

4.1.3 Setting of the Cut-off Date

41. The IOL and census of AHs were preceded by a series of public consultation meetings in commune centres along NR-5 and Pursat Bypass area. Among others, the purpose of the public meetings was to brief the local population about the Project background, activities of the survey team, the policy of JICA and the Cambodian government on involuntary resettlement for the NR-5 Project, including the policy requirement on the cut-off date. The local people were informed that the cut-off date is the first day of holding the IOL and census of the AHs, which was on **2nd September 2013 for the exiting NR-5** and on **30th December 2013 for Pursat Bypass**.

4.1.4 Basic Unit Costs Used in the Resettlement Plan

42. In line with the IOL activities, an RCS of affected assets in the Project area was carried out by the research team which was led by a local resettlement/architecture specialist. The main objective of the RCS is to determine the rate of land prices based on actual transaction records of the affected areas, of affected main and secondary⁶ structures, and of fruit trees, trees and crops. Based on the results of RCS, the AHs will receive compensation at replacement cost (reflecting market price) from RGC for their loss of land and property due to the Project.

43. The methodology employed in the RCS included the following:

- (i) **Sale/Market comparison method:** This method is based on data provided from recent sales of properties that are highly comparable to the subject property in the vicinity. The method is very useful for cost calculation of structure, land, crops and trees.
- (ii) **Contingent valuation method:** Survey based on willingness to accept (WTA) and/or willingness to pay (WTP). This method was used for land price estimation because of land transactions at the project area are minimal in 2013.
- (iii) **Income approach:** Sum of stream of incomes and sales proceeds. The principle here is that the value of a property is related to its ability to produce cash flow. The technique relies heavily on current market transactions involving the sale of comparable properties. This method was used for estimating the prices of crops and tree, particularly to calculate the compensation rates for temporary impact of agricultural land.
- (iv) **Replace cost approach:** This method was useful for structure cost calculation. The value of a structure is based on the current cost for building the concerned structure and labor cost. For this study, the value of structure and labor cost are derived from the current cost based on market price without depreciation.

(a) Unit Costs of Land

44. The affected private lands were divided into 5 main categories: rice field, orchard, flooded, residential and commercial lands. The way to obtain data on market rates is to gather data on recent land sales, however sale cost recording could not be found at/around the Project area. Therefore, data of recent sales were collected by direct interviews with (i) land owners at/around the Project area who are both AHs and non-AHs, and (ii) local authorities at/around the Project area. Per results of the RCS, the unit costs of land covered with recognized proofs of ownership, structures, crops, perennials, and timber trees in districts and communes traversed by the Project road are provided.

Table 4-1: Average Unit Price of Land in 2014 at Pursat Bypass Area

Land Category	Average Unit Price (\$/m ²)
Rice field	1.00
Residential	20.00
Commercial	25.00

Data source: Project Survey conducted from September 2013 to January 2014

⁶ This includes fences, wells, pig pens, toilets, kitchens, etc.

(b) Unit Costs of Structures

45. The houses/structures affected by the Project have been categorized into two main groups – house/dwelling and other structures. The methodology employed for costing house/structures were composed of quantity survey and detailed measurement of the component parts of each structure. Labour costs were also assessed at market prices for the structure as a whole based on the information provided by local building contractors at the survey areas.

46. Although there are 4 main standard categories, some subcategories were introduced based on actual materials in each category. As a result of the survey, a total of 23 categories were identified in the Project area. The unit prices of a typical structure for each category are provided.

47. Other structures such as wells and fences, and cultural assets such as stupa (Chedey), have to be compensated at their market price, and the results of the specific rates of structures are provided.

Table 4-2: Cost Estimation by type of Structures in 2014

Roof	Wall	Floor	Column	Story	Type	Material Cost USD/M2	Labor Cost USD/M2	Structure Cost USD/M2
Thatch	Thatch	None/Soil	Pole/timber	Single	1A	These types are not available in the Middle Section.		
	Wood >50%	None	Pole/timber	Single	1B			
	Thatch	Bamboo/wood	Pole/ timber	Single	1C	28.50	7.50	36.00
	Wood >50%	Wood>50%/ Mortar	Timber/ Concrete	Single	1D	30.00	10.50	40.50
Zn/Fibro	Thatch	None/Soil	Pole/ timber	Single	2A	24.00	6.00	30.00
	Zn/Fibro	None/ Soil	Pole/Iron/ Timber	Single	2B	26.00	8.00	34.00
	Wood	None/ Soil	Pole/ Timber	Single	2C	33.50	13.00	46.50
	Thatch	Bamboo/ Wood	Pole/ Iron	Single	2D	46.00	13.50	59.50
	Thatch	Wood/ Mortar	Timber/ Concrete	Single	2E	50.50	15.00	65.50
	Zn/ Fibro	Bamboo/ Wood	Iron/ Pole	Single	2F	52.50	15.50	68.00
	Zn/ Fibro	Wood/ Mortar	Timber/	Single	2G	55.50	17.00	72.50

Roof	Wall	Floor	Column	Story	Type	Material Cost USD/M2	Labor Cost USD/M2	Structure Cost USD/M2
			Concrete					
	Wood	Bamboo/ Wood	Pole/ Iron	Single	2H	58.50	17.50	76.00
	Wood	Wood/ Mortar	Timber/ Concrete	Single	2I	66.50	18.00	84.50
	Brick	Mortar	Timber/ Concrete	Single	2J	68.00	19.50	87.50
	Zn/Fibro/ Brick	Wood/ Mortar	Timber/ Iron/ Concrete	Ground & First	2K	This type is not available in the Middle Section		
	Wood/ Brick	Wood/ Mortar	Timber/ Concrete	Ground & First	2L	109.00	35.00	144.00
Tile Roof	Thatch	Wood	Pole/ Timber	Single	3A	This type is not available in the Middle Section		
	Wood	Wood/ Mortar	Timber/ Concrete	Single	3B	85.00	25.00	110.00
	Brick	Mortar	Concrete	Single	3C	98.00	32.00	130.00
	Wood/ Brick	Wood/Mortar	Timber/ Concrete	Ground & First	3D	130.00	45.00	175.00
Concrete	Brick	Tile	Concrete	E0	4A	180.50	59.00	239.50
				E0 + E1	4B	312.50	105.00	417.50
				E0 + E1 +E2	4C	435.50	160.00	595.50
Awning/Extended Eaves								
Thatch	None	Soil	Pole/Iron	Single	S1	7.00	1.50	8.50
	None	Mortar	Pole/Iron	Single	S2	15.00	3.00	18.00
Zn/Fibro	None	Soil	Pole/Iron	Single	S3	13.50	2.50	16.00
	None	Mortar	Pole/Iron	Single	S4	21.00	4.00	25.00

Data source: Project Survey conducted from September 2013 to January 2014

Table 4-3: Unit Cost Estimation of Other Structures in February 2014

No.	TYPE OF ASSETS	UNIT	Unit Cost, USD
1	Concrete well (deep about 6m)	set	180.0

No.	TYPE OF ASSETS	UNIT	Unit Cost, USD
2	Pumped well (normal)	set	260.0
3	Forecourt or patio /Brick floor	m ²	9.0
4	Carrolage	m ²	6.5
5	Concrete mortar	m ²	18.0
6	Concrete road	m ²	25.0
7	Vehicle washing place	set	160.0
8	Separated toilet (S<3m ²)	set	170.0
9	Cement culvert (Ø 0.8m x 1m)	m	23.0
10	Wooden bridge	m ²	28.5
	<u>FENCE</u>		
11	Pole post with bamboo bar	lm	5.5
12	Pole post with net/barbed wire	lm	6.0
13	Concrete post with net/barbed wire	lm	7.0
14	Normal brick fence (100mm)	lm	47.0
15	Normal brick fence (200mm)	lm	68.0
	<u>PETROL STATION</u>		
16	Petrol Measure	set	650.0
17	Fuel Tank (10,000L)	set	3,700.0
	<u>GRAVE/STUPA/CHEDEY</u>		
18	Concrete grave	set	2,500.0
19	Chedey/Stupa (7.0m x 4.0m x 4.0m)	set	3,200.0
20	Spirit house with support-leg (small)	set	30.0
	<u>GATEWAY</u>		
21	Normal pagoda gate (3.8m x 7.8m)	set	7,000.0
22	Gate of public service office (Normal) ⁷	set	1,700.0

Data source: Project Survey conducted from September 2013 to January 2014

(c) Unit Costs of Crops and Trees

48. The primary data was collected through interviews on the income at which owners/cultivators of crops and trees at the Project area. The market rates of crops and trees have been calculated based on the yield and the period of maturity of trees and crops as determined from interviews with farmers along NR-5.

49. The formula used for fruit trees is as follows: (Number/Quantity of harvest per year) x (Market price) x (Number of years it will mature) + cost of seedling

50. In order to simplify the study, perennial trees that have a growth period of more than five years have been classified in to the following three types:

- ✓ Sapling tree (1-3 years), as it can replanted ; 1/3 of full price,
- ✓ Young tree (3-5 years), bearing some fruit ; 2/3 of full price,
- ✓ Mature tree (more than five years), fully bearing fruit ; compensate full price.

⁷ The public service office means such as school, health center, commune center, administrative police office, etc.

51. According to the survey, there are some trees that have a growth period of less than five years. Trees are also equivalent to full compensation cost if mature. Otherwise, their compensation value is their cost as a sapling tree or as a young tree.

Table 4-4: Cost Estimation by type of Fruit Tree in 2014

No.	Description	Unit	Qty	Yield per year				Cost of Seedling USD/ Unit	Year for Compensation	Unit Cost USD	Total Price USD in 2014
				Unit	Qty	USD / Unit	Total USD				
1	Bamboo	Thicket	1	Tree	6	1.00	6.00	0.5	3	6.00	18.5
2	Banana (mature)	Tree	1	bunch	5	0.50	2.50	0.5	1	2.50	3.0
3	Coconut	Tree	1	Fruit	40	0.25	10.00	0.5	5	10.00	50.5
4	Tamarind	Tree	1	Lump Sum			7.50	0.5	6	7.50	45.5
5	Chan Kiri	Tree	1	Market Price							22.0
6	Sapodilla	Tree	1	Kg	15	0.40	6.00	0.5	3	6.00	18.5
7	Phyllanthus/Kantuot	Tree	1	Lump Sum			3.00	0.5	3	3.00	9.5
8	Kamping Reach	Tree	1	Fruit	250	0.03	7.50	0.5	4	7.50	30.5
9	Elephane apple/Kwet	Tree	1	Fruit	100	0.08	8.00	0.5	4	8.00	32.5
10	Jackfruit	Tree	1	Fruit	6	2.50	15.00	0.5	4	15.00	60.5
11	Sour fruit/Krasaing	Tree	1	Fruit	200	0.03	6.00	0.5	4	6.00	24.5
12	Korki	Tree	1	Market Price							51.0
13	Jambolan plum/Pring	Tree	1	Kg	40	0.15	6.00	0.5	5	6.00	30.5
14	Jujube	Tree	1	Kg	7	0.50	3.50	0.5	3	3.50	11.0
15	Hog plum/Mkak	Tree	1	Kg	30	0.25	7.50	0.5	5	7.50	38.0
16	Deum Mean (longan)	Tree	1	Kg	11	1.50	16.50	0.5	4	16.50	66.5
17	Sorghum/Sdao	Tree	1	bunch	25	0.50	12.50	0.5	3	12.50	38.0
18	Orange	Tree	1	Fruit	50	0.15	7.50	1.0	5	7.50	38.0
19	Pomelo/Grapefruit	Tree	1	Fruit	20	0.50	10.00	0.5	4	10.00	40.5
20	Custard-apple	Tree	1	Fruit	25	0.20	5.00	0.5	2	5.00	10.5
21	Sour sop	Tree	1	Kg	12	0.50	6.00	0.5	3	6.00	18.5
22	Guava	Tree	1	Kg	15	0.25	3.75	0.5	2	3.75	8.0
23	Milk fruit/Teuk Dos	Tree	1	Fruit	100	0.10	10.00	0.5	5	10.00	50.5
24	Eucalyptus / Acacias	Tree	1	Market Price							10.0
25	Lemon	Tree	1	Fruit	100	0.05	5.00	0.5	2	5.00	10.5
26	Mango/get income	Tree	1	Lump Sum			13.50	1.0	5	13.50	68.5
27	Papaya	Tree	1	Fruit	12	0.50	6.00	0.5	1	6.00	6.5
28	Sugar Palm	Tree	1	Kg	12	0.75	9.00	0.5	8	9.00	72.5
29	Cashew		1	Kg	2	4.00	8.00	0.5	3	8.00	24.5
30	Other tree	Tree	1	Lump Sum							10.0

Data source: Project Survey conducted from September 2013 to January 2014

4.2 Inventory of Affected Assets

4.2.1 Land

52. The inventory of affected land (PRW: 20 m - 20 m) on both sides from the centreline of the road) in ROW (30 m - 30 m) of NR-5 was not performed since the ROW is public state land. It will not be compensated by the Project for the affected area (20 m - 20 m). Nevertheless, the survey team also determined the categories of the land occupants or users, and if the affected lands are accompanied with immovable assets such as trees, houses, shops and/or other structures. **The landless households were also considered.**

53. There were instances when the survey team could not complete their interviews with the AHs because the owners of the affected houses and shops were either closed or unattended during the survey. In such case, the survey team was only able to estimate the area of ROW lands used for residential or commercial purposes (i.e., footprint of the structures), and those that are fenced. These estimates will be validated and corrected as necessary during the updating of the RAP, with the assistance of commune officials who will also sit as members of the Provincial Resettlement Sub-committee-Working Group (PRSC-WG), the main resettlement body that is tasked to carry out the DMS.

54. A total of 296,069.07 m² of land will be required for the construction of the Pursat bypasses. Of these, 90.87% (269,026.84 m²) is used for growing rice, 5,962.56 m² is commercial land and 21,079.67 m² is residential land. Table 4-5 shows the affected land area and the number of owners identified as AHs.

Table 4-5: Number of Affected Households who will lose their Private Lands (due to Pursat Bypasses)

Pursat province	Rice Field		Commercial		House Plot/ Home Garden	
	AH	m ²	AH	m ²	AH	m ²
Kandieng district	34	42,202.20	0	0.00	14	4,395.54
Pursat city	148	226,824.64	2	5,962.56	49	16,684.13
Total	182	269,026.84	2	5,962.56	63	21,079.67

Data source: Project Survey conducted from September 2013 to January 2014

4.2.2 Main Structures

55. A total of 819 AHs along NR-5 and the Pursat bypass, whose main structures (house, house-shop and/or shop/restaurant) will be affected by the Project. Of the 819 AHs, 802 AHs are residing along NR-5, and 17 AHs residing along the bypasses.

Table 4-6: Number of Affected Households who will lose their Main Structures according to Type of Use

Road section	Province	District	AHs According to Type of Structure					Total
			House	House-Shop	Shop/Restaurant	Shelter	Other Structures	
NR-5	BTB	Moung Reussei	104	70	2	242	64	482
		Sangke	23	40	1	101	12	177
		Subtotal (BTB)	127	110	3	343	76	659
	PST	Bakan	148	81	4	299	53	585

Road section	Province	District	AHs According to Type of Structure					
			House	House-Shop	Shop/Restaurant	Shelter	Other Structures	Total
		Krakor	6	2	0	15	0	23
		Pursat	10	2	0	16	5	33
		Subtotal (PST)	164	85	4	330	58	641
	BMCH	Ou Chrov	108	41	0	58	15	222
		Poipet	130	29	1	88	36	284
		Subtotal (BMCH)	238	70	1	146	51	506
	Total (NR-5)		529	265	8	819	185	1,806
Bypass	PST	Kandieng	7	0	0	2	0	9
		Pursat	9	0	1	1	3	14
	Total (Bypasses)		16	0	1	3	3	23
Total	BTB	Moung Reussei	104	70	2	242	64	482
		Sangke	23	40	1	101	12	177
		Subtotal (BTB)	127	110	3	343	76	659
	PST	Bakan	148	81	4	299	53	585
		Krakor	6	2	0	15	0	23
		Pursat	19	2	1	17	8	47
		Kandieng	7	0	0	2	0	9
		Subtotal (PST)	180	85	5	333	61	664
	BMCH	Ou Chrov	108	41	0	58	15	222
		Poipet	130	29	1	88	36	284
		Subtotal (BMCH)	238	70	1	146	51	506
	Total (the Project)		545	265	9	822	188	1,829

Data source: Project Survey conducted from September 2013 to January 2014

Table 4-7: Floor Area (in m²) of Affected Main Structures by Type of Materials

Type of Structure (m ²)	House	House/Shop	Kitchen	Bath room	Grange/Storage	Shop/Restaurant	Craft/Workshop	Stall / Market stall	Other	Total
1C	60.00	0.00	0.00	0.00	0.00	0.00	0.00	16.00	0.00	76.00
1D	51.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.00
2A	63.00	0.00	13.00	0.00	0.00	0.00	19.25	70.20	24.60	190.05
2B	485.99	424.55	0.00	0.00	0.00	30.10	135.27	1,452.47	226.30	2,754.68
2C	263.85	242.98	0.00	0.00	0.00	0.00	163.59	772.34	89.10	1,531.86
2D	125.00	0.00	0.00	0.00	0.00	0.00	0.00	44.00	0.00	169.00
2E	9.00	49.20	0.00	0.00	0.00	0.00	30.00	142.06	22.50	252.76
2F	12.00	0.00	0.00	0.00	0.00	0.00	0.00	47.00	0.00	59.00
2G	3,516.58	2,518.51	58.98	15.50	37.00	110.56	642.48	6,214.40	1,648.84	14,762.85
2H	59.62	22.00	0.00	0.00	0.00	0.00	0.00	173.50	0.00	255.12
2I	5,978.63	2,845.69	14.28	2.55	206.23	104.56	242.99	6,107.20	293.97	15,796.10
2J	2,486.03	860.20	45.24	22.77	142.57	91.53	87.00	1,364.25	895.60	5,995.19
2L	618.94	87.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	706.34

Type of Structure (m ²)	House	House/ Shop	Kitchen	Bath room	Grange/ Storage	Shop/ Restaurant	Craft/ Workshop	Stall / Market stall	Other	Total
3B	308.08	33.00	0.00	0.00	0.00	0.00	0.00	60.85	0.00	401.93
3C	74.50	0.00	0.00	3.00	9.50	0.00	32.02	11.20	0.00	130.22
3D	414.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	414.23
4A	253.73	18.90	0.00	0.00	0.00	23.56	0.00	0.00	27.75	323.94
4B	122.49	4.80	0.00	0.00	0.00	0.00	0.00	8.12	0.00	135.41
4C	35.20	19.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	54.88
S1	0.00	0.00	0.00	0.00	0.00	0.00	177.70	60.00	30.60	268.30
S2	0.00	0.00	0.00	0.00	0.00	0.00	47.50	0.00	7.08	54.58
S3	26.02	42.88	10.00	0.00	0.00	0.00	1,091.01	696.55	2,844.12	4,710.58
S4	46.00	86.80	29.00	0.00	33.00	0.00	2,357.83	1,151.62	14,106.60	17,810.85

Data source: Project Survey conducted from September 2013 to January 2014

Table 4-8: Other Structures

Items	Unit	Total
Concrete Well	set	11
Pump Well	set	13
Cement Mortar	m ²	32,824
Carrolage	m ²	1,965
Concrete Mortar	m ²	765
Concrete Road	m ²	83
Vehicle washing place	set	14
Separated Toilet	set	35
Culvert	m	97
Wooden Bridge	m ²	98
<u>FENCE</u>		
Timber post with bamboo	lm	30
Timber post with wire	lm	1,945
Concrete post with wire	lm	695
Brick Wall, 100mm	lm	2,456
Brick Wall, 200mm	lm	1,002
<u>PETROL STATION</u>		
Petrol Measure	set	19
Fuel Tank (10,000L)	set	2
<u>GRAVE/STUPA/CHEDEY</u>		
Concrete grave	set	1
Chedey/Stupa (7.0m x 4.0m x 4.0m)	set	2
Spirit house with support-leg (small)	set	5

Data source: Project Survey conducted from September 2013 to January 2014

4.2.3 Affected Crops and Trees

56. The start of civil works and the cropping schedule of AHs cultivating within the ROW and bypass will be synchronized to allow smooth transition between harvesting of standing crops and the start of road construction in a particular section of the Project road. Therefore, standing crops will not be affected if those can be harvested before road construction, but if they cannot be harvested before road construction, the unharvested crops will be compensated at replacement cost. However, fruit or timber trees along the PRW will be cleared for the road construction. With regard, there were a total of 5,792 fruit and timber trees with various species

and ages along the existing NR-5 middle section and the Pursat bypasses have been counted during the IOL. The affected fruit and timber trees are not commercially grown, meaning they are sporadically planted.

Table 4-9: Affected Trees

No.	Type of Tree	Unit	Number
1	Bamboo	Thicket	31
2	Banana	Tree	1,412
3	Coconut	Tree	313
4	Tamarind	Tree	40
5	Chan Kiri	Tree	194
6	Sapodilla	Tree	16
7	Kantuot	Tree	22
8	Kamping Reach	Tree	35
9	Khvet	Tree	27
10	Jack Fruit	Tree	126
11	Krasaing	Tree	10
12	Korki	Tree	11
13	Pring	Tree	97
14	Jujube	Tree	12
15	Mkak	Tree	9
16	Longan	Tree	16
17	Sdau	Tree	9
18	Orange	Tree	26
19	Grapefruit	Tree	15
20	Custard apple	Tree	105
21	Sour sop	Tree	23
22	Guava	Tree	100
23	Teuk Dos Kou	Tree	53
24	Acacia/Eucalyptus	Tree	1,067
25	Lemon	Tree	11
26	Mango	Tree	1,166
27	Papaya	Tree	191
28	Sugar Palm	Tree	221
29	Cashew	Tree	70
30	Other	Tree	364

Data source: Project Survey conducted from September 2013 to January 2014

4.3 Impact on Vulnerable Households

57. The AHs are more vulnerable to impoverishment caused by involuntary resettlement are the poor (i.e. under the national poverty line: income<20\$ per month/person), households headed by women, elderly, disabled without support mechanisms and landless households. The households falling within these groups were identified during the IOL will be updated at the time of DSM. They will get special cash assistance is needed to help them. The IOL result showed that there are 421 AHs with a total of 499 vulnerability factors (see Table 4-10). The additional special cash assistance for vulnerable AHs is \$100.00 per vulnerable AH.

Table 4-10: Vulnerable Factors and Vulnerable AHs (VAHs)

Province	District	Aged ≥60 Yrs	Widow	Disabled	Landless	Poor	VAHs
----------	----------	--------------	-------	----------	----------	------	------

Province	District	Aged ≥60 Yrs	Widow	Disabled	Landless	Poor	VAHs
BTB	Moung Reussei	62	26	4	11	4	90
	Sangke	12	11	0	3	1	24
	Sub-total (BTB)	74	37	4	14	5	114
PST	Bakan	66	43	7	37	1	128
	Kandieng	15	5	0	0	0	18
	Krakor	2	2	0	1	0	5
	Pursat	33	19	2	1	4	47
	Sub-total (PST)	116	69	9	39	5	198
BMCH	Ou Chrov	28	14	4	17	1	53
	Poipet	23	13	4	22	1	56
	Sub-total (BMCH)	51	27	8	39	2	109
TOTAL (Project)		241	133	21	92	12	421
499 factors							421 AHs

Data source: Project Survey conducted from September 2013 to January 2014

4.4 Affected Public Assets

58. The Project also will affect on some public assets along NR-5 and Pursat bypass. The detailed results of the affected public assets are demonstrated in appendix 6. The resettlement cost of the affected public assets is calculated and combined into the resettlement cost budget for the project in section 12.3.

5 SOCIO-ECONOMIC PROFILE OF THE AFFECTED HOUSEHOLDS

59. An SES of AHs was also conducted at the same time of IOL survey. Most AHs, losing partially or entirely their assets such as structures, lands and/or trees, were interviewed for the purpose of gaining more information on their situation and present living standards. This activity was carried out aiming to prepare a more responsive RAP for people and households affected by the Project. Since there were instances when the AHs were unattended to during the survey, only 1,611 AHs along the existing NR-5 and the bypass have been interviewed. The number of AHs interviewed represented 66.52% of all AHs (2,422 AHs).

60. The main objective of the SES is to create baseline survey by collecting accurate statistical information about living standard of the AHs. The topics are investigated in the survey were basic demography, literacy and education, economically active population, housing condition, possession of durable goods and livestock, household expenditure and income. Additionally, the survey was also directed to studying the perception of AHs on the Project.

5.1 Population and Household Composition

61. The total number of studied households is 1,611, which is composed of a population of 7,772. The population is comprised of 3,900 (50.2%) females and 3,872 (49.8%) males. Table 5-1 shows the details of population, sex ratio, as well as household size of the three provinces. An average household size is 4.8 and sex ratio is 99.3.

Table 5-1: Population and Household Composition

Stratum	Number of Households	Average HH Size	Population				Sex Ratio*	
			Both	Male		Female		
				No.	%	No.	%	
Project Survey	1,611	4.8	7,772	3,872	49.8	3,900	50.2	99.3
BMCH	372	4.8	1,770	912	51.5	858	48.5	106.3

Stratum	Number of Households	Average HH Size	Population					Sex Ratio*
			Both	Male		Female		
				No.	%	No.	%	
BTB	531	4.7	2,471	1,225	49.6	1246	50.4	98.3
PST	708	5.0	3,531	1,735	49.1	1796	50.9	96.6

Data source: Project Survey conducted from September 2013 to January 2014.

*Sex Ratio = (Number of male) / (Number of female) x 100(%).

5.2 Age structure and Dependency

62. The survey results for the age-sex distribution of the affected commune are set out in Table 5-2. This entry provides the distribution of the population according to age. Information is included by sex and age group (0-13 years, 14-60 years, 60 years and over). The age structure of a population affects a nation's key socioeconomic issues. They indicate a young population, with about 34.8% under 18 years old. With young populations (high percentage under age 18) need to invest more in schools, while with older populations (high percentage ages 60 and over) need to invest more in the health sector.

Table 5-2: Age-Sex distribution

Stratum	Population		0-5		6-13		14-18		19-60		60+	
			No.	%	No.	%	No.	%	No.	%	No.	%
Project Survey	M	3,872	460	11.9	582	15.0	373	9.6	2,247	58.0	210	5.4
	F	3,900	410	10.5	527	13.5	347	8.9	2,321	59.5	295	7.6
	T	7,772	870	11.2	1,109	14.3	720	9.3	4,568	58.8	505	6.5
BMCH	M	912	112	12.3	145	15.9	104	11.4	513	56.3	38	4.2
	F	858	83	9.7	115	13.4	77	9.0	523	61.0	60	7.0
	T	1,770	195	11.0	260	14.7	181	10.2	1,036	58.5	98	5.5
BTB	M	1,225	148	12.1	200	16.3	121	9.9	685	55.9	71	5.8
	F	1,246	147	11.8	179	14.4	110	8.8	723	58.0	87	7.0
	T	2,471	295	11.9	379	15.3	231	9.3	1,408	57.0	158	6.4
PST	M	1,735	200	11.5	237	13.7	148	8.5	1,049	60.5	101	5.8
	F	1,796	180	10.0	233	13.0	160	8.9	1,075	59.9	148	8.2
	T	3,531	380	10.8	470	13.3	308	8.7	2,124	60.2	249	7.1

Data source: Project Survey conducted from September 2013 to January 2014.

63. The dependency ratio used to measure the proportion of children (below 15 years) and old people (from 65 years and over) compared to the proportion of people of workforce age (15-64 years). The age dependency ratio is defined as the ratio of the sum of the population below 15 years and population from 65 years taken together divided by the active population between the age groups of 15 to 64 years. The age dependency ratio is a summary indicator that indicates the burden falling on the population of working age.

64. The age composition in table 5-3 shows that 68.3% of the population was aged between 15-64 years. 27.1% was below 15 years and 4.6% was 65 years and over. The table 5-3 also provided detail about youth dependency ratio (39.6%) and old age dependency ration (6.7%). The total dependency ratio is 46.3%. This means there were 46.3 persons outside the usual working age group for every 100 persons in the age group 15-64 years who are economically dependent for economic support.

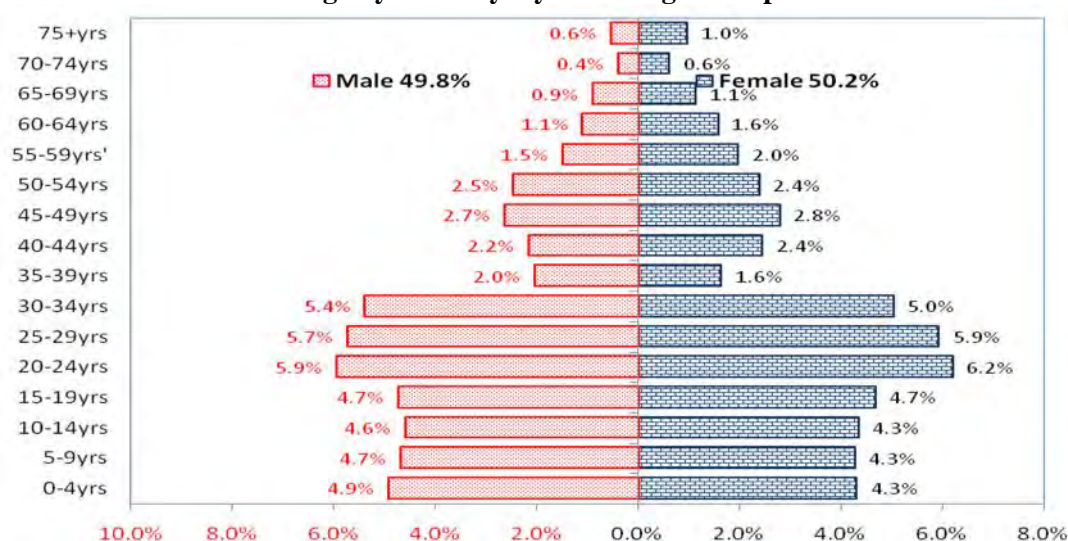
Table 5-3: Age Composition and Dependency Ratio

Stratum	Population		Below 15		15-64		65+		Dependency Ratio		
			No.	%	No.	%	No.	%	Youth	Old Age	Total
Project Survey	M	3,872	1,104	28.5	2,624	67.8	144	3.7	39.6%	6.7%	46.3%
	F	3,900	1,002	25.7	2,688	68.9	210	5.4			
	T	7,772	2,106	27.1	5,312	68.3	354	4.6			
BMCH	M	912	275	30.2	612	67.1	25	2.7	40.0%	5.9%	45.9%
	F	858	210	24.5	601	70.0	47	5.5			
	T	1,770	485	27.4	1,213	68.5	72	4.1			
BTB	M	1,225	365	29.8	810	66.1	50	4.1	43.4%	6.9%	50.3%
	F	1,246	348	27.9	834	66.9	64	5.1			
	T	2,471	713	28.9	1,644	66.5	114	4.6			
PST	M	1,735	464	26.7	1,202	69.3	69	4.0	37.0%	6.8%	43.8%
	F	1,796	444	24.7	1,253	69.8	99	5.5			
	T	3,531	908	25.7	2,455	69.5	168	4.8			

Data source: Project Survey conducted from September 2013 to January 2014.

65. Although not significant statistically, the age-sex figures are valuable in demonstrating that this is, comparatively, an ageing population, with a predominantly middle-aged population with a bulge in the 20-24, 25-29 and 30-34 age group (12.1%, 11.6% and 10.4% respectively) and a corresponding bulge in the 10-19 year old age group (18.3% of the population), while the youngest two age groups, 5-9 year old, have only 9.0%. The relevance of these statistics is the likely higher impact on secondary school in-take in the project impact area than in the primary-school in-take.

Age Pyramid by 5 years of Age Group



Data source: Project Survey conducted from September 2013 to January 2014.

5.3 Marital Status

66. For classifying the marital status, 4 categories were used such as single (never married), currently married, divorced/separate and widowed. The currently married group included person who were living together whether or not their marriage had legal status. Although marital status information was collected for all age groups, it is useful to present data for the population aged 15 years and over only. For both sexes, 34.3% they are never married, 57.7% were currently married, 5.8% were widowed and 2.2% were divorced or separated.

Table 5-4: Marital Status for Both Sexes by Age Group

Age Group	Pop.	Single		Married		Divorced/separate		Widowed	
		No.	%	No.	%	No.	%	No.	%
15+ yrs	5,666	1,942	34.3	3,270	57.7	123	2.2	331	5.8
15 – 19 yrs	731	701	95.9	29	4.0	0	0.0	1	0.1
20 - 24 yrs	943	684	72.5	246	26.1	8	0.8	5	0.5
25 - 29 yrs	906	365	40.3	522	57.6	14	1.5	5	0.6
30 - 34 yrs	810	134	16.5	636	78.5	31	3.8	9	1.1
35 - 39 yrs	286	16	5.6	260	90.9	3	1.0	7	2.4
40 - 44 yrs	359	10	2.8	322	89.7	13	3.6	14	3.9
45 - 49 yrs	422	14	3.3	385	91.2	9	2.1	14	3.3
50 - 54 yrs	377	4	1.1	320	84.9	16	4.2	37	9.8
55 - 59 yrs	270	6	2.2	212	78.5	12	4.4	40	14.8
60 - 64 yrs	208	1	0.5	156	75.0	4	1.9	47	22.6
65 - 69 yrs	158	4	2.5	103	65.2	4	2.5	47	29.7
70 - 74 yrs	78	2	2.6	37	47.4	2	2.6	37	47.4
75+ yrs	118	1	0.8	42	35.6	7	5.9	68	57.6

Data source: Project Survey conducted from September 2013 to January 2014.

5.4 Ethnic Group and Religion

67. 99.3% of affected household heads are Khmer and Khmer speaking, while only 0.7 % are minority ethnic Cham, who are legally registered as Cambodian citizens. They live and work as the Cambodians and they are not vulnerable in terms of their livelihood.

Table 5-5: First Language and Ethnic Group of Household Heads

Stratum	No. H/H	Mother tongue and Ethnic Group			
		Khmer		Cham	
		No.	%	No.	%
Project	1,611	1,599	99.3	12	0.7
BMCH	372	368	98.9	4	1.1
BTB	531	528	99.4	3	0.6
PST	708	703	99.3	5	0.7

Data source: Project Survey conducted from September 2013 to January 2014.

68. Buddhism has been the dominant religion in Cambodia, in one form or another, since the reign of Jayavarman VII (c. 1181-1200). In Cambodia is currently estimated to be the faith of 95% of the population, but through the survey results it was found up to 99.3 % is Buddhism and only 0.7 % is Muslim.

Table 5-6: Religion of Household Heads

Stratum	No. H/H	Mother tongue and Ethnic Group			
		Buddhism		Muslim	
		No.	%	No.	%
Project	1,611	1,599	99.3	12	0.7
BMCH	372	368	98.9	4	1.1
BTB	531	528	99.4	3	0.6
PST	708	703	99.3	5	0.7

Data source: Project Survey conducted from September 2013 to January 2014.

5.5 Vulnerable Groups

69. The study indicates to different type of vulnerable groups include elderly without supporting from youth, window and female-headed households, physically and mentally handicapped, landless and poor household which their income is under national poverty line. Table 5-7 reported that 8.2 % of sample is widow and female household heads. Poor women heads of household are forced by necessity to increasingly take men's roles and responsibilities, due to absence of male labour and inability to hire adult male labour. Female-headed households are indeed facing the double burden of taking care of the well-being of family members and other aspects compared to couple households.

70. Based on the survey results, an average percentage of each vulnerable factor in three different areas (BMCH, BTB and PST) of disabled household head, aged⁸ household head, household living below poverty line (<20\$/capita/month) and landless household is 1.3%, 14.9 %, 0.7%, and 5.6% respectively.

Table 5-7: Vulnerable Household Head

Stratum	Number of HHs	Aged (≥60years)*		Female HHs		Disabled HHs		Landless		<USD 20/month/cap	
		No.	%	No.	%	No.	%	No.	%	No.	%
Project Survey	1,611	240	14.9	132	8.2	21	1.3	91	5.6	12	0.7
BMCH	372	51	13.7	27	7.3	8	2.2	39	10.5	2	0.5
BTB	531	74	13.9	37	7.0	4	0.8	14	2.6	5	0.9
PST	708	115	16.2	68	9.6	9	1.3	38	5.4	5	0.7

* "Aged" Vulnerable Household; HH head is older than 60 years old and with no other means of support.

* No child-headed household was found in the project area.

Data source: Project Survey conducted from September 2013 to January 2014.

5.6 Literacy

5.6.1 Literacy of the Affected Households' Heads and Spouses

71. The male household head literacy rates are 96.4% and female spouse literacy rates are 89.9%. There is a small gap between the literacy rates of male household heads and their spouses. Among 318 female household heads, there are only 252 (79.2%) of them are literacy. Women, in general, receive less education than men, especially for widows. The survey results show that female HH are, around 17%, less literate than male HH. Therefore, women enter the labour market with a lower education and less vocational skills than men. Even though, they (men and women) work the same job and same quality of work, but sometimes women still get a salary less than men.

Table 5-8: Literacy of Affected Households' Heads and Spouses

Stratum	Male AH Head			Female AH Head			Female Spouse		
	# AH	Yes	%	# AH	Yes	%	# AH	Yes	%
Project Survey	1,293	1,247	96.4	318	252	79.2	1,232	1,107	89.9
BMCH	303	295	97.4	69	51	73.9	287	257	89.5
BTB	410	393	95.9	121	100	82.6	390	353	86.1
PST	580	559	96.4	128	101	78.9	555	497	89.5

Data source: Project Survey conducted from September 2013 to January 2014.

⁸ Aged was defined as a person who is more than 60 years old and without young to support.

5.6.2 Adult Literacy (age from 15 years and over)

72. Adult literacy rate is the percentage of the population aged 15 years and over who can both read and write a simple message in any language. The Table 5-9 presents an adult literacy rate of both male and female of 92.6% which is considerably high and the single literacy rate of male and female 96.6% and 88.8% respectively.

Table 5-9: Adult Literacy (age from 15 years and over)

Stratum	Both Sex			Male			Female		
	Pop.	Yes	%	Pop.	Yes	%	Pop.	Yes	%
Project Survey	5,666	5,246	92.6	2,768	2,673	96.6	2,898	2,573	88.8
BMCH	1,285	1,188	92.5	637	618	97.0	648	570	88.0
BTB	1,758	1,627	92.5	860	832	96.7	898	795	88.5
PST	2,623	2,431	92.7	1,271	1,223	96.2	1,352	1,208	89.3

Data source: Project Survey conducted from September 2013 to January 2014.

5.7 Educational Attainment of the Population

73. Since 2000, education for all Cambodians has been re-energized by the world's commitment to the Millennium Development Goal (MDG). Based on its commitment toward the MDG, RGC, with assistance from its development partners and NGO communities, has made their efforts to develop a National Education Plan. Furthermore, the Ministry of Education, Youth and Sport has developed the Education for all policy documents. Cambodian MDG (Global MDG2) aims 'to ensure that by 2015, all children will be able to complete a full course of 9-year basic education'. (Source: Cambodia Millennium Development Goals Report November 2003).

Table 5-10: Education Attainment of Population aged 5 years and over

Stratum	Sex	None or Little	Primary Not Completed	Completed Primary Education	Completed Lower Secondary Education	Completed Upper Secondary Education	Post-Secondary Education
		%	%	%	%	%	%
Project Survey	Male	10.1	23.2	24.5	21.4	12.7	8.1
	Female	16.0	28.9	24.7	16.3	8.7	5.4
	Both	13.1	26.1	24.6	18.8	10.7	6.8
BMCH	Male	12.2	25.5	26.7	19.3	9.7	6.7
	Female	18.6	30.7	22.4	15.9	7.2	5.2
	Both	15.4	28.0	24.6	17.6	8.5	5.9
BTB	Male	10.2	24.1	27.5	19.9	11.6	6.7
	Female	16.1	30.1	26.7	16.3	6.3	4.5
	Both	13.2	27.1	27.1	18.1	8.9	5.6
PST	Male	8.8	21.4	21.2	23.6	15.0	9.9
	Female	14.7	27.1	24.5	16.4	11.1	6.2
	Both	11.8	24.3	22.9	19.9	13.0	8.0

Data source: Project Survey conducted from September 2013 to January 2014.

74. In the Project area, 13.1% of the population (both male and female) has no or little education. The difference of none and little education between sexes is more than one and half with 16.0 % for female and 10.1% for male. Around 24.6% of education attainment for both

male and female has at least completed primary education. As shown in Table 5-10, there are only 18.8% who have completed lower secondary schooling, and 6.8% who have attended post-secondary education for both male and female. The gap between sexes increases for higher level of education nearly one and half, i.e. 8.1% of male have post-secondary education, compared to female, which is only 5.4%.

5.8 Current School Attendance

75. Information on school attendance was collected in respect of the population aged from 6 to 14 years old. School attendance was defined as enrolment and studying at a primary and lower secondary school. School attendance in primary education is 96.4%, while lower secondary school is 96.9%. The percentage of primary school attendance is smaller than lower secondary school attendance due to most of pupils in primary school, are too young/small and they often leave school after a few months of school enrolment/registration.

76. In particular, rural poorer families in the past, young girls are probably allowed to attend school of grade 6 in primary school and after that they stay at home to help their families as additional agricultural labour. At the present, most of the families send and encourage their daughters to go to school in higher level of education. The Table 5-11 shows that about 97.6% of female pupils have attended secondary school. They do not have dropped out school.

Table 5-11: Current School Attendance for Primary and Lower Secondary

Stratum	Sex	Primary School			Lower Secondary School		
		Age: 6-11	Attending	%	Age: 12-14	Attending	%
Project Survey	Male	430	414	96.3	214	206	96.3
	Female	381	368	96.6	211	206	97.6
	Both	811	782	96.4	425	412	96.9
BMCH	Male	111	108	97.3	52	49	94.2
	Female	85	84	98.8	42	42	100.0
	Both	196	192	98.0	94	91	96.8
BTB	Male	147	138	93.9	70	68	97.1
	Female	124	118	95.2	77	75	97.4
	Both	271	256	94.5	147	143	97.3
PST	Male	172	168	97.7	92	89	96.7
	Female	172	166	96.5	92	89	96.7
	Both	344	334	97.1	184	178	96.7

Data source: Project Survey conducted from September 2013 to January 2014.

5.9 Affected Households' Head Engaged in Farming and No-farming

77. About 26.8% of household heads are working on farms, while non-farming is 68.9% (Other rests 4.3% are aged or disable or unable to work.). Table 5-12 shows that the percentage of household heads working on farms is highest in BMCH with 31.5%. A sizeable number of male and female household heads surveyed (363 persons or 28.1% and 68 persons or 21.4%, respectively) are engaged in farming.

Table 5-12: Farming and Non-farming Affected Households' Head

Stratum	Number of Households		Non activity		Non-farming		Farming	
			No.	%	No.	%	No.	%
Project	Male	1,293	45	3.5	885	68.4	363	28.1

Stratum	Number of Households		Non activity		Non-farming		Farming	
			No.	%	No.	%	No.	%
Survey	Female	318	25	7.9	225	70.8	68	21.4
	Total	1,611	70	4.3	1,110	68.9	431	26.8
BMCH	Male	303	4	1.3	197	65.0	102	33.7
	Female	69	3	4.3	51	73.9	15	21.7
	Total	372	7	1.9	248	66.7	117	31.5
BTB	Male	410	16	3.9	259	63.2	135	32.9
	Female	121	10	8.3	91	75.2	20	16.5
	Total	531	26	4.9	350	65.9	155	29.2
PST	Male	580	25	4.3	429	74.0	126	21.7
	Female	128	12	9.4	83	64.8	33	25.8
	Total	708	37	5.2	512	72.3	159	22.5

Data source: Project Survey conducted from September 2013 to January 2014.

5.10 Fishing Community

78. Among 151 AHs interviewed, there are only 27 AHs (17.9%) are in fishing activity. Among the 27 AHs of the fishing family, the 24 AHs (15.9%) are only fish just for their leisure or eating, while 3 AHs (2.0%) get income from fishing.

Table 5-13: Fishing Activities around Pursat town (Bypass)

Stratum	Number of HH	Fishing		Leisure/ Eating		Selling/Money	
		Yes	%	Yes	%	Yes	%
Project Survey	151	27	17.9	24	15.9	3	2.0
Pursat City (PST)	118	25	21.2	23	19.5	2	1.7
Kandieng district (PST)	33	2	6.1	1	3.0	1	3.0

Data source: Project Survey conducted from September 2013 to January 2014.

79. Based on the socio-economic survey, the main source of fishing for the 27 fishing families is a stream or small river, reservoir and Tonle Sap River.

Table 5-14: A place to conduct the fishing

Stratum	Number of HH	Reservoir		Tonle Sap river		Stream/small river	
		Yes	%	Yes	%	Yes	%
Project Survey	27	11	40.7	1	3.7	15	55.6
Pursat City (PST)	25	10	40.0	1	4.0	14	56.0
Kandieng district (PST)	2	1	50.0	0	0.0	1	50.0

Data source: Project Survey conducted from September 2013 to January 2014.

80. Of the 27 fishing families, 88.9% do fishing only in rainy season, 7.4% do fishing only in dry season and 3.7% do fishing for the whole year. None of them have joined in fishery community.

Table 5-15: Duration of the fishing

Stratum	Number of HH	Whole year		Rainy season		Dry season	
		Yes	%	Yes	%	Yes	%
Project Survey	27	1	3.7	24	88.9	2	7.4

Pursat City (PST)	25	1	4.0	22	88.0	2	8.0
Kandieng district (PST)	2	0	0.0	2	100.0	0	0.0

Data source: Project Survey conducted from September 2013 to January 2014.

5.11 Main Sources of Income of Affected Households

81. According to the survey, the main sources of income of the AHs include 75.9% business/trade followed by 57.1% from agricultural sector (agricultural production, livestock, fishing and fish culture), and 55.7% depend on wages/salary. Remittance of 7.2% is also another main source of household income from their jobs in other places.

Table 5-16: Main Source of Income of the AHs

Province	Project Survey		BMCH		BTB		PST	
Number of Households	1,611		372		531		708	
Item	No.	%	No.	%	No.	%	No.	%
Wages/salary	897	55.7	208	55.9	218	41.1	471	66.5
Farming hired labor	29	1.8	13	3.5	12	2.3	4	0.6
Business/trade	1,222	75.9	261	70.2	464	87.4	497	70.2
Agricultural production	741	46.0	165	44.4	271	51.0	305	43.1
Livestock	166	10.3	14	3.8	55	10.4	97	13.7
Fishing	6	0.4	2	0.5	2	0.4	2	0.3
Equipment making	10	0.6	0	0.0	8	1.5	2	0.3
Equipment rental	5	0.3	0	0.0	4	0.8	1	0.1
Transportation	60	3.7	12	3.2	19	3.6	29	4.1
House/land rental	98	6.1	14	3.8	37	7.0	47	6.6
Remittance	116	7.2	28	7.5	44	8.3	44	6.2
Fish culture	6	0.4	0	0.0	1	0.2	5	0.7
Other	74	4.6	22	5.9	22	4.1	30	4.2

Data source: Project Survey conducted from September 2013 to January 2014.

5.12 Affected Households Income

82. Under the survey purposes, the affected household income included earnings and receipts from all sources received by all household members during the last year. Participants in the economic activity include employers, own account workers, employees or unpaid family workers, rentals (house, land, equipment, etc.) or recipient of pensions, grants, etc.

83. A significant number (83.3%) of male household heads reported that they are earning an annual income higher than USD 3,000 (among them, 55.4% earning more than USD 5,000 a year), while 11.4% reported an annual income between USD 2,000 and USD 3,000. Only 0.2% of the male household heads reported that their earnings are less than USD 600 a year.

Table 5-17: Annual Income (USD) of AHs Headed by Males

Stratum	<= 600		600+ - 1,000		1,000+ -2,000		2,000+ -3,000		3,000+ -4,000		4,000+ -5,000		5,000+		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Project	2	0.2	6	0.5	61	4.7	147	11.4	176	13.6	185	14.3	716	55.4	1,293	100.00
BMCH	0	0.0	3	1.0	15	5.0	25	8.3	34	11.2	37	12.2	189	62.4	303	100.00
BTB	2	0.5	1	0.2	24	5.9	67	16.3	72	17.6	61	14.9	183	44.6	410	100.00
PST	0	0.0	2	0.3	22	3.8	55	9.5	70	12.1	87	15.0	344	59.3	580	100.00

Data source: Project Survey conducted from September 2013 to January 2014.

84. Likewise, a significant number (67.0%) of female household heads reported that they are earning an annual income higher than USD 3,000 (among them, 35.8% earning more than USD 5,000 a year), while 16.4% reported an annual income between USD 2,000 and USD 3,000. It is noted that all female household heads in BMCH and PST province earn income higher than USD 600 a year.

Table 5-18: Annual Income (USD) of AHs Headed by Females

Stratum	<= 600		600+ - 1,000		1,000+ - 2,000		2,000+ - 3,000		3,000+ - 4,000		4,000+ - 5,000		5,000+		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Project	1	0.3	12	3.8	40	12.6	52	16.4	54	17.0	45	14.2	114	35.8	318	100.00
BMCH	0	0.0	3	4.3	8	11.6	12	17.4	10	14.5	6	8.7	30	43.5	69	100.00
BTB	1	0.8	3	2.5	21	17.4	17	14.0	24	19.8	20	16.5	35	28.9	121	100.00
PST	0	0.0	6	4.7	11	8.6	23	18.0	20	15.6	19	14.8	49	38.3	128	100.00

Data source: Project Survey conducted from September 2013 to January 2014.

85. Table 5-19 shows the sources of cash income of all 1,611 households interviewed. It reveals that the average monthly income of household and capita is USD 598.79 and USD 124.75, respectively. Of all interviewed households in the Project area, there are 53.8% has their main income source from business/trade, 28.9% has their second main income from wages or salary and 7.82% has their third main income from agricultural sector(i.e. agricultural production, livestock, fishing and fish culture).

Table 5-19: Average Annual and Monthly Income (USD) per Capita

Items	Case	Annual Income		
		USD	%	Average
Wages/salary	897	3,343,459.69	28.9	3,727.38
Farming hired labor	29	44,583.75	0.4	1,537.37
Business/trade	1,222	6,224,965.44	53.8	5,094.08
Agricultural production	741	669,125.85	5.8	903.00
Livestock	166	176,411.87	1.5	1,062.72
Fishing	6	2,687.50	0.02	447.92
Equipment making	10	33,116.25	0.3	3,311.63
Equipment rental	5	7,550.00	0.1	1,510.00
Transportation	60	273,775.25	2.4	4,562.92
House/land rental	98	202,606.78	1.8	2,067.42
Remittance	116	151,636.37	1.3	1,307.21
Fish culture	6	62,331.25	0.5	10,388.54
Other	74	383,539.08	3.3	5,182.96
Total	3,430	11,575,789.08	100.00%	
Currency in USD	Annual		Monthly	
Number of Interviewed HHs = 1,611				
Household income**	7,185.47		598.79	
Capita income***	1,496.97		124.75	

* Each household gets income from more than one source

** [Household income]=[Total Annual Income]/[Total Number of Interviewed HHs]

*** A HH has 4.8 persons in average. (Capita income=Household income / 4.8)

Data source: Project Survey conducted from September 2013 to January 2014.

5.13 Credit

86. Generally, households in the project area have access to credits or loans from various agencies, both private/official and non-official credit institutions. The survey showed that 44.1% (710 AHs) of the 1,611 AHs have received credit from different agencies. The credit sources of the 710 AHs include 35.5% from private bank institutions, 25.2% from NGOs, 11.3% from credit providers, 10.4% from relatives, 5.8% from landlords/traders, and the rest of 11.8% from other credit sources.

Table 5-20: Credit Acquired During the Last Year

	Number of HHs	Received credits		Private Bank		NGOs/ Society		Landlord/ Traders		Credit Providers		Relatives		Others	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Project	1,611	710	44.1	252	35.5	179	25.2	41	5.8	80	11.3	74	10.4	84	11.8
BMCH	372	149	40.1	76	51.0	21	14.1	9	6.0	21	14.1	13	8.7	9	6.0
BTB	531	239	45.0	52	21.8	101	42.3	22	9.2	27	11.3	36	15.1	1	0.4
PST	708	322	45.5	124	38.5	57	17.7	10	3.1	32	9.9	25	7.8	74	23.0

Data source: Project Survey conducted from September 2013 to January 2014.

87. Generally, households acquire loans for various purposes, such as for farming, health treatment, starting/expanding business, and family support. As shown in Table 5-21, most households (73.2%) get loans for expanding their businesses follows by 19.7% for farming, 12.4% for food consumption, 11.5% for health care, 9.0% for schooling cost and 8.5% for house repairing/building.

Table 5-21: Purposes of Acquiring the Credit

Items	Project		BMCH		BTB		PST	
	No.	%	No.	%	No.	%	No.	%
Number of HHs	710		149		239		322	
Food consumption	88	12.4	6	4.0	63	26.4	19	5.9
Health care	82	11.5	24	16.1	31	13.0	27	8.4
Schooling costs	64	9.0	15	10.1	33	13.8	16	5.0
Building/repairing house	60	8.5	7	4.7	26	10.9	27	8.4
Ceremony/wedding	11	1.5	0	0.0	4	1.7	7	2.2
Farming	140	19.7	36	24.2	67	28.0	37	11.5
Business expanding	520	73.2	103	69.1	190	79.5	227	70.5
Supporting family members	26	3.7	9	6.0	5	2.1	12	3.7
Others	53	7.5	8	5.4	16	6.7	29	9.0

Data source: Project Survey conducted from September 2013 to January 2014.

5.14 Sanitation

5.14.1 Water Sources for Drinking and Cooking

88. Of the interviewed households in the Project area, only 8.9% use pipe water from waterworks, 19.3% from protected wells, while 5.8% use water from unprotected wells. Moreover, 45.1% buy clean water during the dry season for their daily consumption and

approximately, 48.7% use rainwater during the wet season. Lake/pond was also the main source of drinking water for 20.4%, while 0.9% still uses water from stream/river.

Table 5-22: Water Sources for Drinking and Cooking

Stratum	#HHs	Stream/River		Lake/Pond		Protected Well		Unprotected Well		Rainwater		B u y i n g		Waterworks	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Project	1,611	14	0.9	329	20.4	311	19.3	93	5.8	785	48.7	727	45.1	143	8.9
BMCH	372	0	0.0	117	31.5	133	35.8	36	9.7	135	36.3	98	26.3	0	0.0
BTB	531	0	0.0	170	32.0	103	19.4	35	6.6	429	80.8	217	40.9	20	3.8
PST	708	14	2.0	42	5.9	75	10.6	22	3.1	221	31.2	412	58.2	123	17.4

Data source: Project Survey conducted from September 2013 to January 2014.

89. 71.7% of the interviewed households always boil their drinking water. Boiling water is by far the most common method for Cambodian people to protect from any bacteria. 8.6% of the interviewed households sometimes boil water before drinking, while 19.7% drink water without boiling.

Table 5-23: Boiling Water for Drinking

Stratum	Number of Households	Boiling Water for Drinking					
		Always		Sometimes		Never	
		No.	%	No.	%	No.	%
Project Survey	1,611	1,155	71.7	139	8.6	317	19.7
BMCH	372	271	72.8	33	8.9	68	18.3
BTB	531	363	68.4	44	8.3	124	23.4
PST	708	521	73.6	62	8.8	125	17.7

Data source: Project Survey conducted from September 2013 to January 2014.

90. Approximately 40.1% of interviewed households have to buy water for washing/bathing during the dry season. Wells and rainwater are the most common water sources for the local people (63.1%) to make a bath and wash (see Table 5-24 for detailed information).

Table 5-24: Water Sources for Washing and Bathing

Stratum	#HHs	Stream/River		Lake/Pond		Protected Well		Unprotected Well		Rainwater		B u y i n g		Waterworks	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Project	1,611	18	1.1	378	23.5	348	21.6	92	5.7	576	35.8	646	40.1	154	9.6
BMCH	372	1	0.3	129	34.7	147	39.5	37	9.9	113	30.4	64	17.2	0	0.0
BTB	531	0	0.0	175	33.0	116	21.8	32	6.0	306	57.6	190	35.8	21	4.0
PST	708	17	2.4	74	10.5	85	12.0	23	3.2	157	22.2	392	55.4	133	18.8

Data source: Project Survey conducted from September 2013 to January 2014.

5.14.2 Toilet

91. In the Project area, 79.6% of the interviewed households have own latrine, while 20.4% do not have access to toilet facilities as they depend on “open defecation” or sharing toilets with their neighbours. In particular, 97.0% of respondents in Kandieng District/PST and only 71.4% of AHs in Krakor District/PST have their own toilet.

5.15 Energy Sources for Lighting and Cooking

92. Battery is still the most commonly used energy source for lighting in Cambodia's rural areas, where electricity is not available. However, in the Project area, only 1.7% of the surveyed AHs claimed that they use rechargeable stationary batteries for lighting. Moreover, 94.7% use publicly provided electricity (state electricity) as their source, while 1.3% use kerosene lamp. About 2.4% of AHs claim that they use their own generators.

Table 5-25: Energy Sources for Lighting

Stratum	Number of HHs	Private Generator		State Electricity		Battery		Gas/Kerosene	
		No.	%	No.	%	No.	%	No.	%
Project Survey	1,611	39	2.4	1,525	94.7	27	1.7	21	1.3
BMCH	372	39	10.5	324	87.1	4	1.1	5	1.3
BTB	531	0	0.0	520	97.9	9	1.7	2	0.4
PST	708	0	0.0	681	96.2	14	2.0	14	2.0

Data source: Project Survey conducted from September 2013 to January 2014.

93. Based on the survey results, 23.1% of interviewed households use liquefied petroleum gas as their source for cooking, while 64.7% and 53.5% use charcoal and firewood, respectively. Only 6.5% of interviewed households in the Project area use electricity as their energy source for cooking

Table 5-26: Energy Sources for Cooking

Stratum	Number of HHs	Firewood		State Electricity		Charcoal		Gas/Kerosene	
		No.	%	No.	%	No.	%	No.	%
Project	1,611	862	53.5	105	6.5	1043	64.7	372	23.1
BMCH	372	228	61.3	21	5.6	235	63.2	102	27.4
BTB	531	296	55.7	30	5.6	362	68.2	89	16.8
PST	708	338	47.7	54	7.6	446	63.0	181	25.6

Data source: Project Survey conducted from September 2013 to January 2014.

5.16 Transportation

94. Bicycles are more commonly used as a mode of transportation in rural areas, while motorcycles are more conveniently and more commonly used in urban areas. In the study, it reveals that around 58.9% of interviewed households have bicycles and 76.0% have motorbikes. Only a small number of households have trucks, at about 5.1%, and 13.2% have a car/pickup/minivan. It was estimated that the average value of transport equipment in the Project area is around USD 2,614 per household.

Table 5-27: Transport Equipment and Its Values

Mode of Transport	Total Value (USD)	Total AHs = 1,611	
		# Having	%
Bicycle	23,234.00	949	58.9
Motorbike	1,304,410.00	1,225	76.0
Car/pickup/minivan	1,889,600.00	212	13.2
Truck	994,200.00	82	5.1
Boat without engine	235.00	4	0.2
Grand Total	4,211,679.00 (USD)		

Average/Household	2,614.00 (USD)
--------------------------	----------------

Data source: Project Survey conducted from September 2013 to January 2014.

5.17 Household Appliances

95. Telephones are the most common household appliance among the AHs interviewed, with 1,535 households (95.3%) reporting that they own at least one up to more than five per household. The second most common appliance is TV/VCR/VCP (87.4%). Table 5-28 shows the percentage of households owning other types of electrical appliances, such as 17.3% owning radio/cassette players, and 13.8% owning sewing machines. A small proportion of households own equipment for convenience such as generators at 3.8%, washing machines at 4.5%, air conditioners at 4.0%, and refrigerators 9.9%. It was estimated that the average value of other assets in the target area is around USD 224.60 per household.

Table 5-28: Household Appliances and Its Values

Stratum	Total Value (USD)	Total Households = 1,611	
		#Having	%
Radio/cassette player	3,464.25	278	17.3
TV/VCR/VCP	86,938.75	1,408	87.4
Sewing machine	29,963.00	223	13.8
Air conditioner	19,750.00	65	4.0
Washing machine	13,175.00	73	4.5
Refrigerator	31,526.00	159	9.9
Telephone	155,872.00	1,535	95.3
Generator	21,205.00	61	3.8
Grand Total	361,894.00 (USD)		
Average/Household	224.60 (USD)		

Data source: Project Survey conducted from September 2013 to January 2014.

5.18 Housing Characteristic

5.18.1 Dwelling Space by Household

96. There are 1,611 dwellings in the sample. Average floor area of dwellings is 53.5 square meters (sqm) per household or 11.15 square meters per person (average household size is 4.8). For all Cambodia (CSES-2004), the average dwelling space per household is 42.0 sqm. The average floor area of dwelling ranged from 39.0 sqm per household in rural areas to 48.8 sqm in other urban areas, and to 64.3 sqm in urban Phnom Penh.

Table 5-29: Dwelling Space

Stratum	No. H/H	Total size in m ²	Average in m ²	≤ 20 m ²		20+ - 50 m ²		50+ - 100 m ²		100+ m ²	
				No.	%	No.	%	No.	%	No.	%
Project	1,611	86,215	53.5	151	9.4	777	48.2	520	32.3	131	8.1
BMCH	372	18,027	48.5	63	16.9	163	43.8	107	28.8	28	7.5
BTB	531	27,678	52.1	39	7.3	302	56.9	154	29.0	35	6.6
PST	708	40,510	57.2	49	6.9	312	44.1	259	36.6	68	9.6

Data source: Project Survey conducted from September 2013 to January 2014.

5.18.2 Building Material

97. In the studied area 66.2% of the roofs are built from galvanized iron, fibrocement and plastic sheet. There is 26.0% from roofing tile and only 2.8% from thatch. 53.8% of houses

have wooden walls, the rest being mainly brick with 21.9%. 47.2% have wooden floors. The remaining 21.7% and 23.7% are of floor tile and mortar, respectively.

Table 5-30: Building Material

Construction Material (Total HH = 2,111)	Roof		Wall		Floor	
	No.	%	No.	%	No.	%
Thatch	10	0.62	26	1.61	0	0.0
Tin / Fibro/ Plastic Sheet	1,200	74.49	325	20.17	0	0.0
Wood	0	0.0	921	57.17	697	43.27
Bamboo	0	0.0	7	0.43	5	0.31
Roofing Tile	327	20.30	0	0.0	0	0.0
Floor Tile	0	0.0	0	0.0	297	18.44
Mortar	0	0.0	0	0.0	498	30.91
Concrete	39	2.42	0	0.0	0	0.0
Earth	0	0.0	0	0.0	82	5.09
Brick	0	0.0	291	18.06	0	0.0

Data source: Project Survey conducted from September 2013 to January 2014.

5.19 People's Perception of the Project

5.19.1 Satisfaction with the Project

98. AHs showed satisfaction with the Project since it was reported that 15.1% rated the Project as 'very good', and 58.4% rated it as 'good'. However, about 24.0% of the total households rated the Project as 'good and bad'.

Table 5-31: Satisfaction with the Project

Items	Project		BMCH		BTB		PST	
	No.	%	No.	%	No.	%	No.	%
Bad	40	2.5	10	2.7	2	0.4	28	4.0
Good and bad	387	24.0	81	21.8	60	11.3	246	34.7
Good	940	58.4	218	58.6	389	73.2	333	47.0
Very good	244	15.1	63	16.9	80	15.1	101	14.3
Total	1,611	100.0	372	100.0	531	100.0	708	100.0

"Bad": because the Project they will: 1) increase daily expend; 2) loss of good trading site; 3) increase accident; 4) disturbs people and community; 5) affect on house/shop; 6) loss of land use in PRW; 7) worsen access to school; 8) worsen environmental impact; 9) decrease household income; 10) affected on public facilities; 11) loss of occupation; 12) worsen people health condition; and 13) make people migration away.

Data source: Project Survey conducted from September 2013 to January 2014.

5.19.2 Benefits of the Project

99. In the area of improvements, interviews revealed that around 86.0% of AHs believed that the Project will help decrease congestion/accident when travelling, while 55.7% mentioned it will improve access to other facilities. About 45.1% responded that the Project will improve cargo transportation. Table 5-32 shows more detailed information on the Project benefits.

Table 5-32: Three ranks of Project Benefits

Most Important Benefits	Total Number of HHs = 2,111							
	Total		First		Second		Third	
	No.	%	No.	%	No.	%	No.	%

Improve cargo transportation	726	45.1	311	19.3	270	16.8	145	9.0
Appreciation of land prices	81	5.0	11	0.7	27	1.7	43	2.7
Reduced daily expenditures	86	5.3	3	0.2	15	0.9	68	4.2
Decrease of congestion/accidents	1385	86.0	874	54.3	399	24.8	112	7.0
Improve access to other facilities	897	55.7	149	9.2	436	27.1	312	19.4
Flood prevention	40	2.5	3	0.2	12	0.7	25	1.6
Improve travel of tourists	461	28.6	86	5.3	179	11.1	196	12.2
Improve environment	214	13.3	21	1.3	71	4.4	122	7.6
Big push to outskirts area	376	23.3	53	3.3	70	4.3	253	15.7
Attract more investment	169	10.5	31	1.9	52	3.2	86	5.3
Create more direct/indirect jobs	139	8.6	24	1.5	25	1.6	90	5.6
Improve local product marketing	24	1.5	1	0.1	4	0.2	19	1.2
Other	8	0.5	4	0.2	1	0.1	3	0.2

Data source: Project Survey conducted from September 2013 to January 2014.

5.19.3 Perception of Affected Households with Regards to Relocation

100. In terms of the perception of AHs concerning relocation due to the Project, 95.4% of interviewed households said that they agree to move from the PRW but will need some assistance from the Project. Meanwhile, 2.9% replied that they will voluntarily move without any compensation or assistance. About 1.5% did not answer. However, 0.2% of AHs refused to move from the PRW (see Table 5-33 for details).

Table 5-33: Perception of AHs with Regards to Relocation

Stratum	Number of Households	No Answer		Refuse to Relocate		Agree with Assistance		Voluntarily Move	
		No.	%	No.	%	No.	%	No.	%
Project	1,611	24	1.5	3	0.2	1,537	95.4	47	2.9
BMCH	372	3	0.8	1	0.3	362	97.3	6	1.6
BTB	531	0	0.0	0	0.0	526	99.1	5	0.9
PST	708	21	3.0	2	0.3	649	91.7	36	5.1

Data source: Project Survey conducted from September 2013 to January 2014.

6 ORGANIZATIONAL FRAMEWORK

101. The owner of the Project is the Executing Agency (EA) which is MPWT; therefore, it has overall responsibility for the successful implementation of the RAP. The EA will be assisted by a number of Offices within and outside MPWT, starting with the Project Management Unit (PMU) which is tasked with undertaking the Project. The Environmental Section of PMU (PMU-ES) will be established to work closely with the RD (Resettlement Department) of the Inter-ministerial Resettlement Committee (IRC) for the preparation, updating, and implementation of the RAP.

6.1 The Environmental Section of the Project Management Unit (PMU-ES)

102. PMU-ES of MPWT under guidance of IRC will work closely with RD as the lead arm of the PMU in the preparation and implementation of the RAP. Its tasks include the followings:

- (i) Secure the approval of the RAP by IRC;
- (ii) Secure prior approval from IRC and JICA for any variations in the approved RAP;

- (vii) Securing from the national treasury the budget for carrying out the RAP, ensuring that funds are available in a timely manner and in sufficient amounts;
- (viii) Ensuring the approval of all disbursements connected with the implementation of the RAP, such as payment for compensation and other entitlements, acquisition and preparation of replacement plots, operational expenses of personnel, etc.;
- (ix) Ensuring that funds for resettlement are spent judiciously; and
- (x) Hire External Monitoring Agency to monitor the implementation of the RAP, ensuring that this is carried out in compliance with the Project resettlement policy and with the loan agreement.

6.3 Provincial Resettlement Sub-Committee

107. The Provincial Resettlement Sub-Committee (PRSC) is a collegial body at the provincial level. Headed by the Provincial Governor or Provincial Vice-Governor, its members are provincial department directors of line ministries represented in IRC, and also the chiefs of the districts and communes traversed along the Project road.

108. The technical arm of PRSC is PRSC-WG, which is headed by the Director (or a representative) of the Provincial Department of Public Works and Transport (PDPWT). The regular members of PRSC-WG come from the Provincial Government, the Provincial Department of Economy and Finance (PDEF), and the Ministry of Interior.

109. In an effort to make the whole process of resettlement effective, participatory and transparent, the chiefs of the affected communes and villages in affected communes will seat in PRSC-WG to tackle matters concerning their respective areas of jurisdiction.

110. PRSC, through PRSC-WG, will have the following functions:

- (i) Facilitate a sustained public information campaign, ensuring that the public, especially the AHs, are updated on any development regarding the Project and resettlement activities;
- (ii) Cooperate with IRC-WG in conducting the implementation of RAP and assist public consultation and information disclosure meeting;
- (iii) Manage the delivery of compensation and other entitlements to the AHs;
- (iv) Receive and act on the complaints and grievances of AHs in accordance with the Project resettlement policy; and
- (v) Maintain a record of all public meetings, grievances, and actions taken to address complaints and grievances.

7 IMPLEMENTATION SCHEDULE

111. During the detailed design stage, DMS and RCS will be conducted under management of IRC-WG. DMS will be implemented by IRC-WG in close cooperation with PRSC-WG and relevant local authorities. RCS will be updated by independent agency hired by IRC. Based on the result of DM and RCS, IRC will calculate compensation amount and request budget disbursement to RGC.

112. During the DMS, consultation meeting will be held and project information booklet will be distributed to all AHs by IRC-WG assisted by PRSC-WG. The information program will precede the marking of the PRW. Grievance procedures and structure will be established prior to DMS. The preparation for the updating of the RAP will follow immediately after the final identification survey and DMS.

113. After the compensation amount is expected to be undertaken simultaneously for different sections of the road, the compensation process, including agreement and certified record of quantities and valuation of properties and physical payment of cash compensation and formal transfer of property in the form of land will take place before any construction start in a designated stretch of the road. Compensation payments are made at least 30days before construction starts. The external monitor will be conducted during all of the above stages of implementation of the RAP. The external monitor's benchmark survey will be carried out prior to any physical relocation of AHs and AH structures.

114. IRC will mobilize its working group to work closely with PRSC-WG and the EMA before commencement of any resettlement activities, i.e., before RAP updating. Land acquisition and relocation of AHs will not commence until the updated RAP has been reviewed and approved by both IRC and JICA.

115. MPWT will ensure that contractor will not be issued notice to commence for any part of a section of a road to begin construction work unless it has (a) satisfactorily completed in accordance with the approved updated RAP, compensation payment and relocation; (b) ensured that income restoration program is in place; and (c) area required for civil works is free of all encumbrances. Table 7-1 summarizes the various inter-related activities connected with the updating and implementation of the RAP.

Table 7-1: Indicative Schedule of Resettlement Activities

ACTIVITIES	SCHEDULE
JICA Approval of Draft RAP	August 2014
RAP Updating following Detailed Design	Early 2016
Submission and JICA Approval of Updated RAP	Middle 2016
Implementation of the Approved Updated RAP	Middle 2016
Internal Monitoring (Submission of Quarterly Progress Reports)	Middle 2016 and forwarding
External Monitoring (Intermittent)	Middle 2016 to 2018
Post-evaluation	Middle 2018
Start of Civil Works*	Middle 2017

** For sections where there are no resettlement impacts.*

8 PUBLIC PARTICIPATION AND CONSULTATION

116. Stakeholders of the Project include provincial/district, commune/village officials, local people along the existing NR-5 (Thlea Ma'am – Battambang and Sri Sophorn – Poipet) and Pursat Bypass, and managers and staff of PDPWT (See Table 8-1). Participation provides for the opportunity and the process by which stakeholders influence and become co-responsible for development initiatives and decisions that affect them. Through participation, the needs and priorities of the local population are solicited; the adverse social impacts of the Project, including the corresponding mitigating measures, are collectively identified; and the commitment and feeling of ownership over the Project is engendered among the AHs.

8.1 Participatory Activities in Resettlement Plan's Planning

117. The public, especially the AHs, the local governments and road users will be consulted and their opinions solicited. They will in fact participate in the preparation of the RAP. Table 8-1 summarizes the roles and responsibilities of the EA, local governments, and AHs in the reparation.

Table 8-1: Participatory Activities in RAP Planning

Project Process Stage	Participatory Activities and Participants	Outputs	Responsible Institution
Preparation or Feasibility	Briefing of the provincial, district, commune, village officials, local people along NR-5 and Pursat Bypass, and PDPWT about the Project technical assistance, the resettlement impact, and activities of the consultant (provincial and first commune stakeholder meeting).	The local population including AHs and their representatives, local government officials, and managers and technical staff of PDPWT participated in the meeting and were consulted on the objectives, planning and impact of the project and of resettlement.	MPWT and Consultant (JICA Study Team)
	Conduct of IOL, census of AHs, social impact assessment, and RCS.	An IOL, census of AHs and RCS were conducted and the results were included in the RAP.	Consultants (JICA Study Team), assisted by local authorities and PDPWT.
	Discussion/consultation with IRC-RD and PMU-MPWT about the proposed project resettlement policy.	IRC were made fully aware of and consulted about social impact and resettlement policy.	Consultant (JICA Study Team)
	Initial disclosure meeting with AHs to discuss the results of the IOL and gather suggestions on how to minimize and mitigate impacts, and discuss about relocation options (second commune stakeholder meeting).	AHs and community leaders are informed of social impact and any damage or loss of property including land losses, and consulted on impact mitigation and resettlement including any relocation.	MPWT and Consultant (JICA Study Team)
	Drafting of the RAP and project information booklet (PIB) ⁹ and submission to PMU-MPWT, IRC-RD and JICA for review and approval.	Draft of RAP and PIB will be provided to and reviewed by MPWT, IRC-RD and JICA for approval.	Consultant (JICA Study Team)

8.2 Public Consultations During Resettlement Action Plan Preparation

118. During RAP preparation stage, the following public consultations were held at different stages.

- (i) Provincial stakeholder meeting
- (ii) Public Consultation Meeting on cut-off date

⁹ The Project information booklet will be written in Khmer. The PIB will be distributed to each AH during the DMS, and updated PIB will be distributed before signing contract with AHs. An English version draft of PIB in *Appendix 1: Project Information Booklet (English Draft Version)* will be translated in Khmer and be distributed during the DMS. The updated PIB to be distributed before signing contract with AHs, information of rehabilitation options (including outline of IRP) will be added.

8.2.1 Schedule of Stakeholder Meetings

119. The schedules of stakeholder meetings held regarding NR-5 and Pursat Bypass are shown in Table 8-2. Female participants were limited for the provincial stakeholder meetings because of original gender balance of local authorities in Cambodia. For the commune level meetings, MPWT collaborated with local authorities requested active participation from both male and female. As a result, certain ratio of female participation was observed in commune level meetings.

120.

Table 8-2: Public Meetings Held Regarding National Road No.5 and the PST Bypass

Province	District/Commune	Venue	Date	Participants
Provincial Stakeholder Meeting				
PST	Krong Pursat	PDPWT Office	7 Aug. 2013 at 2:30 pm	Male=19 Female=2
BTB	Krong Battambang	PDPWT Office	8 Aug. 2013 at 8:30 am	Male=27 Female=2
BMCH	Krong Sri Sophorn	PDPWT Office	8 Aug. 2013 at 2:30 pm	Male=21 Female=1
Public Consultation Meeting on cut-off date (at commune level)				
1-PST	Pursat City - Svay Att	Svay Att commune center	26 Aug. 2013 at 2:00 pm	Male=31 Female=8
2-PST	Bakan District - Snam Preah - Trapaing Chorn	Trapaing Chorn commune center	26 Aug. 2013 at 3:30 pm	Male=45 Female=45
3-PST	Bakan District - Boeung Khnar	Boeung Khnar commune center	27 Aug. 2013 at 8:30 am	Male=37 Female=35
4-PST	Bakan District - Au Ta Poang - Savy Daun Keo	Pouth Raingsei pagoda	27 Aug. 2013 at 10:00 am	Male=80 Female=40
5-BTB	Moung Reussei District - Reussei Kraing - Prey Svay	Kraloam Phlok pagoda	27 Aug. 2013 at 2:00 pm	Male=44 Female=16
6-BTB	Moung Reussei District - Kear - Moung	Moung Reussei Gov. Hall	27 Aug. 2013 at 3:30 pm	Male=80 Female=60
7-BTB	Moung Reussei District - Kakoh - Prey Touch	Dob Krasaing primary school	28 Aug. 2013 at 8:30 am	Male=70 Female=55
8-BTB	Sangke District - Kampong Preang	Kampong Preang commune center	28 Aug. 2013 at 10:00 am	Male=49 Female=31
9-BTB	Sangke District - Kampong Preah	Kampong Preah Commune Centre	28 Aug. 2013 at 2:00 pm	Male=25 Female=11
10-BTB	Sangke District - Anlong Vil - Au Dambang 2	Pok Chhmar primary school	28 Aug. 2013 at 3:30 pm	Male=35 Female=17
11-BMCH	Ou Chrov District	Chan Sy Samky	29 Aug. 2013	Male=110

Province	District/Commune	Venue	Date	Participants
	- Samroang - Koub	Ratnaream pagoda	at 8:30 am	Female=120
12-BMCH	Poipet City - Nimitt	Nimitt 1 Rest Hall	29 Aug. 2013 at 10:00 am	Male=60 Female=50
13-BMCH	Poipet City - Psar Kandal	Mong Chin pagoda	29 Aug. 2013 at 2:00 pm	Male=26 Female=20
14-BMCH	Poipet City - Poipet	Paleley pagoda	29 Aug. 2013 at 3:30 pm	Male=55 Female=21
15-PST	Krakor District - Thnoat Chum	Thnoat Chum Commune Centre	26 Dec. 2013 at 2:30 pm	Male=17 Female=14
16-PST	Pursat City - Prey Nhy	Commune Council House	26 Dec. 2013 at 4:00 am	Male=25 Female=12
17-PST	Pursat City - Banteay Dei	Banteay Dei pagoda	27 Dec. 2013 at 8:30 am	Male=26 Female=6
18-PST	Kandieng District - Veal	Veal Commune Center	27 Dec. 2013 at 10:00 am	Male=20 Female=15
19-PST	Pursat City - Phateah Prey	Au Sdoa village center	27 Dec. 2013 at 2:00 am	Male=25 Female=13

8.2.2 Key Points Raised and Discussed

(a) PROVINCIAL Stakeholder Meetings

121. Three provincial stakeholder meetings were conducted in Pursat, Battambang and Banteay Mean Chey province. During the meetings, a representative of MPWT made a short presentation which focused on background of NR-5 and its current situation, the Project and its impacts (positive and negative), result of initial survey, information about schedule of IOL and baseline survey (in July 2011). All participants were also provided with opportunities to discuss on bypass options.

122. The key points raised and discussed during the pre-IOL public meetings are the followings and the questions and responses of the meeting are summarized in Table 8.3.

- (i) Background of NR-5 and its current situation;
- (ii) TA objective, including Project background and its impacts (both positive and negative);
- (iii) The schedule of main activities for conduct an IOL, census of APs, social impact assessment, and replacement cost study (RCS);
- (iv) Discussion about the bypass options;
- (v) Discussion of other issues, including question and answer portion.

(b) PUBLIC Consultation Meeting on cut-off date

123. A few days before the IOL commenced on 2nd September 2013 and 30th December 2013, the first of a series of public meetings with stakeholders (e.g., road users, residents of traversed communities, transport operators, government agencies, civil society, etc.) was held in Pursat, Battambang and Banteay Mean Chey Provinces by the PMU-MPWT and the Consultant (JICA Study Team) for the purpose of discussing the following:

- (i) Project outline, technical assistance background and objectives;

- (ii) Main activities of the research team (i.e., conduct of socio-economic household survey, IOL, RCS, etc.);
- (iii) Briefing on Key Principal of the project's policy on involuntary resettlement;
- (iv) Probable positive and adverse impacts of the Project, and recommendations on how to avoid and mitigate negative impacts;
- (v) Informing on Cut-Off Date: 2nd September 2013 for NR-5 and 30th December 2013 for Pursat Bypass; and
- (vi) Question and Response.

124. After an introduction of Local Authority, representative of MPWT/ICD described the background of NR-5 and its current situation, background of the Project and its impacts, both positive and negative. During the meetings, all participants were reformed and explained about the Cut-off Date is 2nd September 2013 for the existing NR-5 and 30th December 2013 for the Pursat Bypass. In each meeting, there was also an open floor for discussion among the participants. The results of discussion are summarized in Table 8-3:

**Table 8-3: Questions and Responses of the Public Consultation Meeting
(Provincial level and on cut-off date)**

Table 3

Question	Response
1. About the project implementation	
Could you tell us, when the project will be started implementation?	ICD/MPWT: This study is the primary process to collect all impact data and consultation information from people. After this process, the RAP will be submitted to JICA and Gov. for approval. In case both parties agreed, the detailed design phase will be continued. At the moment, an exactly time schedule could not be specific.
Will the improved road consist of protected fence to avoid any accident to people, or not?	ICD/MPWT: The NR-5 will be developed in to 4 lanes as well as the way for bicycle riding and walking. So, the detailed design will be taking high consideration in avoiding traffic accident. The traffic signs will be also equipped adequately like slowing down sign, cross way sign and so on.
Will the project construct a drainage system along the improved road?	ICD/MPWT: Engineers will design carefully, so the people should not concern about this issue. The designing will be much considered on social and environmental negative impacts as much as possible.
Which one is better between improving the existing road and a new bypass construction in Pursat town?	<p>ICD/MPWT: At the moment there is no any decided option (bypass or widening existing road or flyover) for the Pursat town. But based on the idea of SHM at provincial level, the bypass construction is a very good option. Because the bypass will be:</p> <ul style="list-style-type: none"> • Minimized project impact in both social and environmental. The study found that it will be more affected to people who are living in the town. So a negative impact of the project is more. • Reduced a traffic volume due to the road is ASEAN High Way that will be caused to increase traffic accident, noisier and more pollution. • The bypass will bring economic growth into the area, because

Question	Response
	<p>the land along it will become an industry zone.</p> <ul style="list-style-type: none"> • Expend the city that will be over capacity to load people due to the population increase from day to day.
The suggestion from villagers	<ul style="list-style-type: none"> - The project should construct system drainage for rain water. - The project should also include cross ways above the NR-5, especially where are a hospital and school for people as well as animals. - The designing should be focused on bridge construction rather than constructing a box culvert. It is to avoid the flooding that destroyed our rice.
2. About the ROW/PRW and Relocation	
After the relocation, could we continue to live on the remained ROW land (10meters)?	ICD/MPWT: Of course, people could keep living as normal. In order to avoid any loss, they could not build any more permanent structures such as houses or shops on it. But for the people who have more land outside the ROW, they should move out. People can also continue to use the remained land for crop cultivation purpose.
How many meter of ROW land will be used to build this road (PRW)?	ICD/MPWT: Due to the agreement from MPWT and JICA study team, the survey was covered only 20 meters in both sides from the road center line, because engineer needs enough space for truck moving during the construction and road embankment due to the land level. Therefore, the drawing will be detailed designed after this study if RGC and JICA approved on the study report. However, the people who are living on remained ROW (10 meters), they can still continue to live.
What is the size of the actual road after the construction?	ICD/MPWT: The Project will take 40m for the road construction area (PRW), but do not mean that the actual road is 40m width. The actual road size will be known during the detailed design. According to the government policy, the Project will try to minimize its resettlement impact as much as possible. The road will be constructed in 4 lanes and two road sides for pedestrian and bicycle.
To avoid any lost in the future, how many meters from the road that people can construct their houses?	ICD/MPWT: People have to construct their houses outside the ROW. It means more than 30m from the road center line.
Can people continue to use on their remained land (10m) in the ROW?	<p>ICD/MPWT: People can continue to use the remained land only in crop cultivation purpose. In order to avoid any loss, new permanent structures such as houses or shops will not be allowed to be built.</p> <p>For AHs that has remained land in ROW, they have 2 options: i) First option is to continue to live on the remained land if they would like to do so and ii) second option is to inform to IRC-WG during the DMS process that they are landless HH. Then, the AHs will be registered in landless HH list. However, the APs should not be so worry. The Government will strongly consider on the issue.</p>
I will lose all land (landless) after the road construction, what the project will deal with me?	<p>ICD/MP WT: Now, we do not know how many there are landless household. Therefore, we have to conduct an IOL survey and then the Project will find a solution to solve the problem.</p> <p>The Project is development project. Therefore, local people will get the benefit from the project. It means their livelihood will be</p>

Question	Response
	better because of the road construction.
Is the road expanding (PRW) in the same size for both sides?	ICD/MPWT: In principal, the PRW is the same size (20m) for both sides, but for the detailed design is not really the same due to land situation. For IOL will study in 20m-20m in both sides.
What size is the ROW in urban area?	ICD/MPWT: According to the sub-degree No.197, issued on 23 November 2009 stated that in urban are, the ROW will be defined by provincial or city governor in particularly.
The suggestion from villagers	The detailed design should be take more attention on road curve near Kampong Preah Bridge and Panha Pagoda that life accidents happened many time already.
3. About the compensation and other assistance	
Will the compensation start in 2 nd September 2013?	ICD/MPWT: The compensation will start when the construction plan is approved and before the road construction. People should continue to live as normal because the road construction might be started in 4 to 5 years more. This study is only to collect impact data for resettlement budget estimation and RAP preparing. Therefore, it is very useful for people to raise any concern for including in the RAP.
Is there any compensation for affected structures in the PRW?	ICD/MPWT: Any affected properties in ROW that settled before the cut-off date will be compensated by the project. For any structure is built after the cut-off date will not eligible for the compensation.
How the project will compensate for my affected house that was built since 1979?	ICD/MPWT: It will be compensated at replacement cost which will study by an independent consultant. The affected structures will be classified by types of structures. Please remember that only those structures are constructed before the cut-off date will be eligible for the compensation.
How to compensate between the old and new building?	ICD/MPWT: The compensation will be based on replacement cost. It means all affected structures (new and old) will be compensated as new structure cost.
The Project implementation will affect my house in PRW. The remained land will be too small. What can the Project do for that?	ICD/MPWT: 1- The affected house will be compensated at replacement cost which will be calculated by independent consultant. The construction materials and labor cost will be calculated in market price in the local area. 2- Because the affected land in PRW/ROW, it is a state land and will not be compensated. But during the Project implement phase, RGC would have a clear policy to help AHs. In case, affected people do not have any more land or the remained land is not suitable for living, the Project will help them to solve the problem.
Will the Project compensate for land improvement in PRW?	ICD/MPWT: If the land has been filled up for house construction or business activity, cost for land improvement will not be compensated, because land within PRW belonging to state.
Do the Project will compensate for land improvement in PRW?	ICD/MPWT: If the people filling the land in PRW, it will not be compensated, because land within PRW belonging to state.
Currently, many people are having	ICD/MPWT: During the RAP updating, the study team will

Question	Response
business stall in the ROW, how the project will compensate to us?	conduct updated RCS. The RCS results are based on market price for both construction materials and labor cost. Therefore, with the compensation rate people can rebuild their stall as the same previous condition.
How to compensate for affected pagoda gate?	ICD/MPWT: Affected public or community properties will not compensate in cash, but it will be reinstated by the project.
Is there any compensation to non fruit trees?	ICD/MPWT: The compensation will be provided too.
Will the Project compensate for my affected well in PRW?	ICD/MP WT: Of course, people will get compensation for their affected wells, even though it is constructed in ROW.
I have paid about USD 20,000.00 for my house construction. Would the Project compensate for the same amount?	ICD/MPWT: The replacement cost will be conducted by independent consultant who has well experienced on it. The RCS results are based on market price for both construction materials and labor cost. Therefore, with the compensation rate people can rebuild their houses in the same previous houses.
Will the compensation be done before the construction work?	ICD/MPWT: The compensation will be done before the construction work. This study is not for compensating, it is just for impact data collecting for preparing RAP. If the project was approved to construct, then the DMS will be done by IRC-WG for compensation payment.
Do they compensate affected drainage and gates in the ROW?	ICD/MPWT: The affected properties will divided into 2 types: (i) public property: it will be reconstructed by IRC and (ii) Private property: it will be compensated in cash by the project. The compensation will be done after resettlement DMS process is approved. Any properties before the cut-off date will included into the resettlement budget.
Is there a compensation for affected private culverts?	ICD/MP WT: Those affected culverts will be replaced with new ones, if it is belong to public property. In case it is a private property, the Project will compensate to the owner with replacement cost. It means people can restore their culverts with the compensation amount.
Will the Project compensate for crops in PRW?	ICD/MPWT: The Project will compensate in order to support AH income, because their incomes from the crops or trees will be temporarily decreased by the Project Impact.
Will the Project compensate for the whole structure if it is affected in a part (30%)?	ICD/MP WT: It will be based on the actual structure figure. Sometimes, the structure is affected a part, but it cannot be cut so the compensation have to be done for the whole structure. On the contrary, if the structure can cut in affected part, so the compensation will be done only the affected size. The compensation for the affected structure will be divided by type, size and number of floor.
If the construction work affects religious worship places such as spirit houses, how does the Project compensate for the community?	ICD/MPWT: In this case, the Project will be tried to avoid its impact as much as possible. In case, it could not avoid the Project will discuss with the community to find a suitable place to reconstruct it. It ensure that the new one is the same as or better than the old one. The cost for ceremony also will be provided if it is needed.

Question	Response
How to deal with the affected public or community property?	ICD/MPWT: The affected public or community property will be replaced with new ones. IRC WG will invite a few contractors to bid for rebuilding the affected properties.
Who is responsible for the property loss compensate? Is it JICA?	ICD/MPWT: No, the compensation will be a responsibility of the Cambodia Government side, which is implemented through IRC based on the approved policy by JICA and the Government of Cambodia. JICA will provide only a loan for road construction. Even though, JICA is also much considerate on resettlement policy and resettlement implementation.

9 GRIEVANCE REDRESS

125. Grievances of AHs in connection with the implementation of the RAP will be handled through negotiation with the aim of achieving consensus. Complaints will go through three stages before they may be elevated to a court of law as a last resort.

9.1 First Stage, Commune Level

126. An aggrieved AH may bring his/her complaint to the commune leader. The commune leader will call for a meeting of the group to decide the course of action to resolve the complaint within 15 days, following the lodging of complaint by the aggrieved AH. The meeting of the group consists of the commune leader, representative/s from PRSC-WG of the district offices, and the aggrieved AH. The commune leader is responsible for documenting and keeping file of all complaints that are coursed through him/her. If after 15 days the aggrieved AH does not hear from Village or Commune, or if the AH is not satisfied with the decision taken by in the first stage, the complaint may be brought to the District Office either in writing or verbally.

9.2 Second Stage, District Office

127. The District office has 15 days within which to resolve the complaint to the satisfaction of all concerned. If the complaints cannot be solved in this stage, the district office will bring the case to the Provincial Grievance Redress Committee.

9.3 Third Stage, Provincial Grievance Redress Committee

128. The Provincial Grievance Redress Committee, which consists of Provincial Governor or Deputy Governor as a committee chairman and Directors of relevant Provincial Departments as members will be established in each province prior to DMS, meets with the aggrieved party and tries to resolve the complaint. The Committee may ask to PRSC-WG for a review of the DMS by the EMA. Within 30 days of the submission of the grievance the Committee must make a written decision and submit a copy of the same to MPWT, the EMA, IRC and the AH.

9.4 Final Stage, the Court Procedures

129. If the aggrieved AH is not satisfied with the solution made by the Provincial Grievance Redress Committee based on the agreed policy in the RAP, the committee shall file administrative procedures against the AHs with the participation of provincial prosecutors. The case will be brought to the Provincial Court and the same will be litigated under the rules of the court. At the same time, the AH can bring the case to the Provincial court. During the litigation of the case, RGC will request to the court that the project proceed without disruption while the case is being heard. If any party is unsatisfied with the ruling of the provincial court, that party can bring the case to a higher court. The RGC shall implement the decision of the court.

10 RELOCATION STRATEGY

10.1 Preferred Option by Landless AHs

130. Landless AHs have expressed their preferred option for relocation during stakeholder meeting in August 2013. They expressed their desire to relocate near the road or at near public facilities such as public hospitals, schools, markets, worships, and with provision of basic infrastructures such as access road in the resettlement sites, toilets, water supply connection, etc. Another consultation with them on relocation options and schedule to the new resettlement site will be conducted again during this RAP implementation.

10.2 Relocation Strategy

131. Landless AHs will be given opportunities to decide on two relocation options during for their relocation. The two options are (1)-self relocation (individual household) with project assistance and (2)-group relocation to resettlement sites prepared by the project.

132. Self relocation option: For the road section with landless AHs, they can have their own relocation to any location they preferred. The cash assistance for land use will be provided them to make their own relocation arrangements. This cash assistance will be calculated based on the cost resettlement site per landless household, if it is prepared by the project.

133. Group relocation to resettlement sites prepared by the project: IRC-WG in collaboration with PRSC will acquire a piece of land for preparing a resettlement site based on consultation with landless AHs or their representatives. The location of the land will be as close as possible to their original land and will have access to nearby or on-site primary and secondary schools, health facilities and market facilities. For this option, each landless AH will be relocated together in one resettlement site on a District basis, regardless commune of his/her existing location.

134. Under group relocation option, each landless AH will be provided a plot of land of 105m² (7m x 15m) for free. After 5 consecutive years of living on the land, title to the land plot (secure tenure status) will be provided to the AHs. Similarly to private land owners who opt for land replacement, IRC will facilitate Ministry of Land Management, Urban Planning and Construction (MLMUPC) to provide the secure tenure status.

135. Prior to relocation of AHs, site development will ensure basic infrastructure including the following:

- (i) Source of water supply;
- (ii) Drainage system;
- (iii) Electricity to site and, as necessary, local distribution system; and
- (iv) Road access to and within the resettlement site.

136. All basic infrastructures at the resettlement site should be ready before AHs are asked to relocate there. Furthermore, impact on livelihood activities of all shop owners will be minimized. IRC-WG and PRSC-WG will consult with landless AHs about the relocation and civil work schedule including site development schedule during the DMS.

137. In addition to these, owners of affected private land can also opt for land replacement if they preferred and the land replacement will be equal size and located as close as possible to the existing location. All replacement lands will be provided for free with secure tenure status. IRC will facilitate Ministry of Land Management, Urban Planning and Construction (MLMUPC) to provide the secure tenure status.

10.3 Summary Cost of Resettlement Site Development

138. The land location and price were identified and surveyed by the consultant team during the project preparation, and the budget for resettlement site development was also estimated. Since the final selection of the land locations for Bakan, Moug Reussei and Ou Chrov District will be done during the RAP implementation through consultation with landless AHs, the budget for relocation site development will be revised based on the actual land location selection and its price.

10.3.1 Resettlement Site at Bakan District

139. In Bakan district, PST Province, there are only 37 landless AHs, plus one from Krakor district and another one from Pursat City. So in total, there are 39 landless AHs for Bakan Resettlement Site. Each of them will be entitled to a land plot of 105m² (7m x 15m) at the new resettlement site. Basic infrastructures at resettlement site such as access roads, latrines, electricity and deep well will be provided.

Table 10-1: Cost Estimate for Resettlement Site at Bakan District

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Landless Household : 39 AHs (estimate for 40 AHs)					
1	Land price	m2	4,876.00	4.80	23,404.80
2	Public space and U-turn	m2	920.00	4.80	4,416.00
3	Reserved land 10%	m2	690.00	4.80	3,312.00
4	Site cleaning and grubbing	m2	6,486.00	0.08	518.88
5	Temporary security fence – metal sheet	lm	374.00	14.00	5,236.00
6	Electrical post installation and wire	set	1.00	16,800.00	16,800.00
7	Land filling	m3	9,729.00	6.00	58,374.00
8	Soil compaction	m2	6,486.00	2.00	12,972.00
9	Laterite road	m2	1,026.00	16.00	16,416.00
10	Drainage system and main holds	lm	350.00	45.00	15,750.00
11	Plot demarcation post	post	160.00	12.00	1,920.00
12	Latrine (WC)	set	40.00	250.00	10,000.00
13	Electrical connection fee	HH	40.00	50.00	2,000.00
14	Deep Well	set	4.00	350.00	1,400.00
Subtotal					172,519.68
Contingency (5%)					8,625.98
Total					181,145.66

10.3.2 Resettlement Site at Moug Reussei District

140. In Moug Reussei district, BTB province, there are 11 landless AHs, plus 3 landless AHs from Sangke district. So in total, there are 14 landless AHs for the Moug Reussei Resettlement Site. The AHs will be encouraged to relocate to a new resettlement site with basic infrastructures such as access roads, latrines, drainages, and pumping wells, etc. Each landless AH will receive a land plot of 105m² (7m x 15m), plus other basic infrastructures.

Table 10-2: Cost Estimate for Resettlement Site at Moug Reussei District

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Landless Household : 14 AHs (estimate for 16 AHs)					
1	Land price	m2	1,680.00	30.00	50,400.00

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
2	Public space and U-turn	m2	920.00	30.00	27,600.00
3	Reserved land 10%	m2	260.00	30.00	7,800.00
4	Site cleaning and grubbing	m2	2,860.00	0.08	228.80
5	Temporary security fence – metal sheet	lm	242.00	14.00	3,388.00
6	Electrical post installation and wire	set	1.00	16,800.00	16,800.00
7	Land filling	m3	1,430.00	6.00	8,580.00
8	Soil compaction	m2	2,860.00	2.00	5,720.00
9	Laterite road	m2	300.00	16.00	4,800.00
10	Drainage system and main holds	lm	182.00	35.60	6,479.20
11	Plot demarcation post	post	128.00	12.00	1,536.00
12	Latrine (WC)	set	16.00	250.00	4,000.00
13	Electrical connection fee	HH	16.00	50.00	800.00
14	Deep Well	set	2.00	350.00	700.00
Subtotal					138,832.00
Contingency (5%)					6,941.60
Total					145,773.60

10.3.3 Resettlement Site at Ou Chrov District

141. As mentioned in entitlement matrix, the project has two options with regard to relocation: (i) self-relocation and (ii) project sponsored site, calling resettlement site (RS) with security of tenure and basic infrastructure. In Ou Chrov district, BMCH province, there are 17 landless AHs, plus 22 landless AHs from Poipet. So in total, there are 39 landless AHs for Ou Chrov Resettlement Site. The same as other RS, the AHs are encouraged to relocate to a new resettlement site with basic infrastructures such as access roads, latrines, drainages, and pumping wells, etc. Each landless AH will receive a land plot of 105m² (7m x 15m).

Table 10-3: Cost Estimate for Resettlement Site at Ou Chrov District

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Landless Household : 39 AHs (estimate for 40 AHs)					
1	Land price	m2	4,876.00	4.80	23,404.80
2	Public space and U-turn	m2	920.00	4.80	4,416.00
3	Reserved land 10%	m2	580.00	4.80	2,784.00
4	Site cleaning and grubbing	m2	6,376.00	0.08	510.08
5	Temporary security fence – metal sheet	lm	374.00	14.00	5,236.00
6	Electrical post installation and wire	set	1.00	16,800.00	16,800.00
7	Land filling	m3	12,752.00	6.00	76,512.00
8	Soil compaction	m2	6,376.00	2.00	12,752.00
9	Laterite road	m2	1,026.00	16.00	16,416.00
10	Drainage system and main holds	lm	350.00	45.00	15,750.00
11	Plot demarcation post	post	160.00	12.00	1,920.00
12	Latrine (WC)	set	40.00	250.00	10,000.00
13	Electrical connection fee	HH	40.00	50.00	2,000.00
14	Deep Well	set	4.00	350.00	1,400.00
Subtotal					189,900.88
Contingency (5%)					9,495.04
Total					199,395.92

11 INCOME RESTORATION STRATEGY

142. Restoring the incomes of AHs, whose means of livelihood has been disturbed or removed, is a high priority for RGC and JICA. This is of particular concern with respect to households whose livelihoods as well as property are lost as a result of the road improvement. Therefore, the entitled AHs will be provided for two options. Option 1: Cash assistance for income restoration or Option 2: the Income Restoration Program (IRP). If the IRP is required under their preference, an Income Restoration Program (IRP) will be developed during resettlement implementation stage, after DMS is conducted. Accordingly, IRC will contract out to implement IRP (See *Appendix 3: Terms of Reference for Income Restoration Programs*).

143. Possible measures to restore livelihood depend on sort of income sources. The Vulnerable, Severely and Relocating AHs will be entitled to an IRP to restore income and livelihood as affected by the project. Thus, the contents of income restoration should be discussed based on situations and need assessment of target groups. The result of SES and other surveys such as DMS can be utilized for the discussion to design an effective IRP.

12 COSTS AND BUDGET

144. The cost for resettlement will be covered by the government counterpart funds. Funds for the implementation of the RAP are part of the Project Cost. The land acquisition and resettlement cost has been estimated based on results of the IOL and the RCS conducted during the Project Study from September 2013 to January 2014.

12.1 Procedures for Flow of Funds

145. IRC will request the resettlement budget from MEF and the compensation amount will be transferred to relevant PDEF for releasing compensation and allowances to AHs. Payment of compensation and other entitlements will be in cash and will be distributed in public place (commune centre, school, pagoda etc.). The AHs will be notified through the village chiefs with regards to the schedule of payment of compensation and other entitlements.

12.2 Updating of the Compensation Rates

146. An RCS were conducted by local consultant during the project preparatory study as basis unit rate to estimate the cost for resettlement and land acquisition. Since compensation to AHs will be commenced in 2016 (tentative schedule), the conducted RCS will be updated to reflect the current market price of affected property. The RCS updating will be conducted in parallel with the DMS.

12.3 Estimated Costs for Resettlement

147. The estimated costs for resettlement and land acquisition based on the RCS and the IOL during the project preparatory study is USD 8,059,913.55, which includes cash compensation, assistance and reinstate public assets for USD 6,888,815.00, external monitoring and income restoration of USD 482,217.05, administration cost of 5% equivalent to USD 344,440.75, and contingency of 5% or equivalent to USD 344,440.75. The Government will ensure timely provision of funds for resettlement costs and will meet any unforeseen obligations in excess of the resettlement budget in order to satisfy resettlement objectives (*Appendix 5: Reference Tables for Resettlement Budget Calculation*). The resettlement estimated cost will be updated during the resettlement implementation based on the Detailed Measurement Survey (DMS) and the updated RCS.

Table 12-1: Summary of Land Acquisition and Resettlement Costs

Table 4

No.	Items	Unit	Quantity	Rate (\$/Unit)	AMOUNT (US\$)
A	LAND (Table 1)				839,684.24
1	Rice field	m2	269,026.84	1.00	269,026.84
2	Residential/Home garden	m2	21,079.67	20.00	421,593.40
3	Commercial	m2	5,962.56	25.00	149,064.00
B	STRUCTURES (Table 2)				4,081,918.20
4	1C	m2	76.00	36.00	2,736.00
5	1D	m2	71.00	40.50	2,875.50
6	2A	m2	190.05	30.00	5,701.50
7	2B	m2	2,754.68	34.00	93,659.12
8	2C	m2	1,531.86	46.50	71,231.49
9	2D	m2	169.00	59.50	10,055.50
10	2E	m2	252.76	65.50	16,555.78
11	2F	m2	59.00	68.00	4,012.00
12	2G	m2	14,762.85	72.50	1,070,306.63
13	2H	m2	255.12	76.00	19,389.12
14	2I	m2	15,796.10	84.50	1,334,770.45
15	2J	m2	5,995.19	87.50	524,579.13
16	2L	m2	706.34	144.00	101,712.96
17	3B	m2	401.93	110.00	44,212.30
18	3C	m2	130.22	130.00	16,928.60
19	3D	m2	414.23	175.00	72,490.25
20	4A	m2	323.94	239.50	77,583.63
21	4B	m2	135.41	417.50	56,533.68
22	4C	m2	54.88	595.50	32,681.04
23	S1	m2	268.30	8.50	2,280.55
24	S2	m2	54.58	18.00	982.44
25	S3	m2	4,710.58	16.00	75,369.28
26	S4	m2	17,810.85	25.00	445,271.25
C	OTHER FIXED TRUCTURES (Table 3)				571,675.50

No.	Items	Unit	Quantity	Rate (\$/Unit)	AMOUNT (US\$)
27	Concrete Well	set	11	180.00	1,980.00
28	Pump Well	set	13	260.00	3,380.00
29	Cement Mortar	m2	32,824	9.00	295,416.00
30	Carrolage	m2	1,965	6.50	12,772.50
31	Concrete Mortar	m2	765	18.00	13,770.00
32	Concrete Road	m2	83	25.00	2,075.00
33	Vehicle Washing Place	set	14	160.00	2,240.00
34	Toilet	set	35	170.00	5,950.00
35	Culvert	m	97	23.00	2,231.00
36	Wooden Bridge	m2	98	28.50	2,793.00
37	Timber post with Bamboo	lm	30	5.50	165.00
38	Timber post with wire	lm	1,945	6.00	11,670.00
39	Concrete post with wire	lm	695	7.00	4,865.00
40	Brick Wall, 100mm	lm	2,456	47.00	115,432.00
41	Brick Wall, 200mm	lm	1,002	68.00	68,136.00
42	Petrol Measure	set	19	650.00	12,350.00
43	Fuel Tank (V=10,000L)	set	2	3,700.00	7,400.00
44	Concrete Grave	set	1	2,500.00	2,500.00
45	Chedey/Stupa (7.0m x 4.0m x 4.0m)	set	2	3,200.00	6,400.00
46	Spirit house with support-leg (small)	set	5	30.00	150.00
D	TREES AND FRUIT TREES (Table 4)				162,297.00
47	Bamboo	thicket	31	18.50	573.50
48	Banana	tree	1,412	3.00	4,236.00
49	Coconut	tree	313	50.50	15,806.50
50	Tamarind	tree	40	45.50	1,820.00
51	Chan Kiri	tree	194	22.00	4,268.00
52	Sapodilla	tree	16	18.50	296.00
53	Kantuot	tree	22	9.50	209.00
54	Kamping Reach	tree	35	30.50	1,067.50
55	Khvet	tree	27	32.50	877.50
56	Jack fruit	tree	126	60.50	7,623.00

No.	Items	Unit	Quantity	Rate (\$/Unit)	AMOUNT (US\$)
57	Krasaing	tree	10	24.50	245.00
58	Korki	tree	11	51.00	561.00
59	Pring	tree	97	30.50	2,958.50
60	Jujube	tree	12	11.00	132.00
61	Mkak	tree	9	38.00	342.00
62	Longan	tree	16	66.50	1,064.00
63	Sdau	tree	9	38.00	342.00
64	Orange	tree	26	38.00	988.00
65	Grapefruit	tree	15	40.50	607.50
66	Custard apple	tree	105	10.50	1,102.50
67	Sour sop	tree	23	18.50	425.50
68	Guava	tree	100	8.00	800.00
69	Teuk Dos	tree	53	50.50	2,676.50
70	Acacial/Eucalyptus	tree	1,067	10.00	10,670.00
71	Lemon	tree	11	10.50	115.50
72	Mango	tree	1,166	68.50	79,871.00
73	Papaya	tree	191	6.50	1,241.50
74	Sugar palm	tree	221	72.50	16,022.50
75	Cashew	tree	70	24.50	1,715.00
76	Other	tree	364	10.00	3,640.00
E	ALLOWANCES				465,630.00
78	Transport Allowance (Table 5)	AH	2,784	varied	95,460.00
79	Disruption Allowance, including SAHs (Table 6)	AH	2,400	varied	316,350.00
80	Special Allowance/Vulnerable AHs (Table 7)	AH	421	100.00	42,100.00
81	Tenant's Allowance (Table 8)	AH	137	varied	11,720.00
F	RESETTLEMENT SITE DEVELOPMENT				526,315.19
82	Resettlement site at Bakan district	ls	-	-	181,145.66
83	Resettlement site at Moung district	ls	-	-	145,773.60
84	Resettlement site at Ou Chrov district	ls	-	-	199,395.92
G	PUBLIC ASSETS				241,294.89
85	Cost estimate for affected land (Table 8)	m ²	1,215.00	20.00	24,300.00

No.	Items	Unit	Quantity	Rate (\$/Unit)	AMOUNT (US\$)
86	Cost estimate for affected main structures (Table 9)	m ²	721.52	varied	59,443.39
87	Cost estimate for affected other structures (Table 10)	ls	-	-	147,908.00
88	Cost estimate for affected trees (Table 11)	tree	818	varied	9,643.50
SUBTOTAL					6,888,815.00
85	Administrative cost (5%)	ls	-	-	344,440.75
86	NGO/Income restoration (5%)	ls	-	-	344,440.75
87	External Monitoring (2%)	ls	-	-	137,776.30
88	Contingency (5%)	ls	-	-	344,440.75
GRAND TOTAL					8,059,913.55

13 MONITORING AND EVALUATION

13.1 Internal Monitoring

148. PMU-ES in close coordination with IRC will conduct an internal monitoring on resettlement implementation. The monitoring will include progress reports, the status of the RAP implementation, information on location and numbers of people affected, compensation amounts paid by item, and assistance provided to AHs. The report of monitoring results will be prepared by MPWT and submitted to IRC and JICA on quarterly basis.

149. The following indicators will be monitored periodically by PMU-ES/MPWT:

- (i) Compensation and entitlements are computed at rates and procedures as provided in the approved RAP;
- (ii) AHs are paid as per agreed policy provided in the RAP by the Project authorities;
- (iii) Public information, public consultation and grievance redress procedures are followed as described in the approved RAP;
- (iv) Public facilities and infrastructure affected by the Project are restored; and
- (v) The transition between resettlement and civil works is smooth.

13.2 External Monitoring

150. The external monitor has the specific responsibility of studying and reporting on measures for income restoration, if the IRP is implemented under the entitled AHs preference, and on social and economic situations of AHs particularly disrupted by the road works, including all households whose houses or shops and stalls are relocated. The external monitor also has the responsibility of reviewing potentials for job opportunities and training for AHs, including women and youth, which would be assisted by provincial authorities, and for which the relevant Commune Councils and local NGOs may provide additional support.

151. IRC will hire an External Monitoring Agency (EMA) to carry out external monitoring and post-implementation evaluation. The TOR for the engagement of the EMA is provided in *Appendix 2: Terms of Reference for External Monitoring Agency*. The external monitoring reports will be submitted to IRC on quarterly basis, and then IRC will forward to MPWT/PMU

and JICA. The post evaluation will be conducted within one year after all resettlement activities are completed.

152. The EMA will assess (i) the achievement of resettlement objectives, (ii) changes in living standards and livelihoods, (iii) the restoration of the economic and social conditions of the AHs, (iv) the effectiveness, impact and sustainability of assistance measures, (v) the need for further mitigation measures, if any; and, (vi) identify strategic lessons for future policy formulation and planning. The EMA will also be responsible for checking the procedures and resolutions of grievances and complaints. The EMA may recommend further measures to be taken to redress unresolved grievances.

Appendix 1: Project Information Booklet (English Draft Version)

PROJECT INFORMATION BOOKLET
for
THE RESETTLEMENT ACTION PLAN
NATIONAL ROAD No.5 IMPROVEMENT PROJECT (MIDDLE SECTION)



1. **QUESTION:** What is the National Road No.5 Improvement Project?

ANSWER: National Road No.5 (NR-5) is the trunk road reaching Bangkok through the border between Cambodia and Thailand. It is also designated as Asian Highway (AH-1) or Southern Economic Corridor of GMS. The Survey Road was damaged by the flood in 2000, and the section between Prek Kdam and Thlea ma'Am and the section between Battambang and Sri Sophon have been temporarily repaired. Therefore, Royal Government of Cambodia firstly requested Japanese loan for rehabilitating 2 sections of NR-5, Prek Kdam – Thlea ma'Am and Battambang – Sri Sophon, and construction of 4 bypasses around Banteay Mean Chey, Battambang, kampong Chhnang and Udong. Then, the middle section from Thlea M'am to Battambang and construction of Pursat bypass also will rehabilitate.

2. **QUESTION:** Who is responsible for the Project?

ANSWER: The Royal Government of Cambodia represented by IRC (Inter-ministerial Resettlement Committee) will supervise the resettlement action plan implementation. MPWT (Ministry of Public Works and Transport) implements and monitors Resettlement Plan for affected houses, land and other properties on the roads.

3. **QUESTION:** Is the improvement of the road intended to benefit us?

ANSWER: Yes. The improved road will allow the transportation of goods and people to be quicker, more efficient and cheaper between towns and villages and also from Thailand to all parts of Cambodia. It will help everybody to market their products, get supplies, reduces poverty and to reach public services.

4. **QUESTION:** If there will be road improvements along our road, will we be affected?

ANSWER: The design and improvement of the highway will affect the use of land, trees and some houses, trading stalls and gardens and entrances in the government owned right of way. During detailed design, these potential effects may be avoided or minimized since actual alignments of the improved road will be determined through consultation with you and the rest of the local communities.

In case negative impact on land, trees, house and structures cannot be avoided, the owners of affected properties will be properly compensated in cash or in kind for their land use, houses, structures, crops, trees and communal properties in order for them to restore their lost assets, resource or income. Rehabilitation assistance will also be provided to Affected Persons who will be required to relocate in another location.

5. **QUESTION:** What if my private land will be affected by the Project?

ANSWER: For affected land, compensation can be in the form of replacement land or cash at current market value. If land replacement has been agreed by AHs, the replacement land should be of equal or better productive capacity of the lost land and satisfactory to AHs.

6. **QUESTION:** Does compensation apply to my affected houses or structures?

ANSWER: Yes. Houses and structures that will be affected by the Project shall be compensated at replacement cost without deduction for depreciation or salvageable materials.

7. **QUESTION:** What about my crops and trees?

ANSWER: For annual crops, AHs will be given 3 month notice that the land on which their crops are planted will be used by the Project and that they must harvest their crops in time. If standing crops are ripening and cannot be harvested, eligible AHs can be compensated for the loss of the un-harvested crops at the current market value.

For perennial crops, AHs will be compensated for the loss of fruit and timber trees located within the project area at replacement cost.

8. **QUESTION:** What about our common property resources like school building, pagoda, fence of pagoda and school, irrigation, well and ponds?

ANSWER: For common property resources, the affected land will be replaced in areas identified in consultation with affected communities and relevant organizations. Affected building and structures will be restored to original and better condition.

9. **QUESTION:** If in case there will be relocation of houses or businesses involved, how can the Project help me rebuild my house during relocation?

ANSWER: Houses or other properties will be compensated at replacement cost, which includes labor cost to build the houses and the properties. Apart from the compensation for loss of private land and other assets at replacement costs, the Project will ensure that the standard of living of AHs are maintained or better improved after the Project.

<<Entitlement Matrix will be inserted here>>

10. **QUESTION:** When will the detailed measurement survey be conducted?

ANSWER: The activity will be carried out after the actual alignment has been identified. The DMS survey team will be composed of:

- Representative of IRC;
- Team of Working Group MPWT;
- Provincial Sub-Committee, also Involved representative District, Commune and Village authority; and
- External Monitoring Organization.

The activity will only be carried out in the presence of the AHs. The AHs and the local authorities will be informed a few days prior to the activity.

11. QUESTION: If there will be disagreements or problems that arise during project implementation such as compensation, technical and general project-related disputes, do I have the right to voice my complaint?

ANSWER: Yes. If the AH is not satisfied with the compensation package offered or, if for any reason, the compensation does not materialize according to the agreed schedule, the AH has the right to lodge a complaint based on the Grievance Redress Mechanism as provided below.

- First Stage, Commune Level: An aggrieved AH may bring his/her complaint to the commune leader. The commune leader will call for a meeting of the group to decide the course of action to resolve the complaint within 15 days, following the lodging of complaint by the aggrieved AH. The meeting of the group consists of the commune leader, representative/s from PRSC-WG of the district offices, and the aggrieved AH. The commune leader is responsible for documenting and keeping file of all complaints that are coursed through him/her. If after 15 days the aggrieved

AH does not hear from Village or Commune, or if the AH is not satisfied with the decision taken by in the first stage, the complaint may be brought to the District Office either in writing or verbally.

- Second Stage, District Office: The District office has 15 days within which to resolve the complaint to the satisfaction of all concerned. If the complaints cannot be solved in this stage, the district office will bring the case to the Provincial Grievance Redress Committee.
- Third Stage, Provincial Grievance Redress Committee: The Provincial Grievance Redress Committee, which consists of Provincial Governor or Deputy Governor as a committee chairman and Directors of relevant Provincial Departments as members will be established in each province prior to DMS, meets with the aggrieved party and tries to resolve the complaint. The Committee may ask to PRSC-WG for a review of the DMS by the EMA. Within 30 days of the submission of the grievance the Committee must make a written decision and submit a copy of the same to MPWT, the EMA, IRC and the AH.
- Final Stage, the Court Procedures: If the aggrieved AH is not satisfied with the solution made by the Provincial Grievance Redress Committee based on the agreed policy in the RAP, the committee shall file administrative procedures against the AHs with the participation of provincial prosecutors. The case will be brought to the Provincial Court and the same will be litigated under the rules of the court. At the same time, the AH can bring the case to the Provincial court. During the litigation of the case, RGC will request to the

court that the project proceed without disruption while the case is being heard. If any party is unsatisfied with the ruling of the provincial court, that party can bring the case to a higher court. The RGC shall implement the decision of the court.

The complaint issues will be solved under the agreed policy in the approved RAP.

The concerned Grievance committees will properly document all complaints and resolutions. AHs will be exempted from all taxes, administrative and legal fees.

12. QUESTION: How will you know if these undertakings are kept and the objectives of this Project are met?

ANSWER: All project activities will be monitored by IRC, Provincial Sub-Committee, Ministry of Public Works and Transport, and an external monitoring agency. Quarterly reports will be prepared and submitted to IRC and then IRC will forward it to JICA. A post- resettlement impact evaluation will also be undertaken to assess whether impacts of the Project have been mitigated adequately and the pre-project standard of living of AHs have been restored as a result of the resettlement and project. The JICA will also monitor these activities in its regular supervision missions during the period of project implementation.

If you have further queries and suggestions, please contact us at:

Pursat, Battambang and Banteay Mean Chey Province, also Provincial Department of Public Works: Pursat, Battambang and Banteay Mean Chey

Appendix 2: Terms of Reference for External Monitoring Agency

Terms of Reference
for External Monitoring Agency (EMA)
Resettlement Action Plan (RAP) Implementation
for the National Road No.5 Improvement Project

I. Background

1. In the Kingdom of Cambodia (“Cambodia”), road transport accounts for around 65% of passenger transport, and 70% of freight transport, and plays the most important role in domestic transport. During the civil war in the 70’s and 80’s, most of the roads were deteriorated due to poor (practically non-existent) maintenance. Since 1993, the rehabilitation has progressed with the assistance from multilateral and bilateral development partners.

2. National Road No.5 (NR-5) is the trunk national road connecting the capital city of Phnom Penh to major city of Battambang and then to Bangkok through Thai border city of Poipet. It is also designated as Asian Highway No. 1 (AH-1) or the Southern Economic Corridor of Greater Mekong Sub-region (GMS). However, all the road surface type is double-layered bituminous surface treatment (DBST) and the surface condition is being deteriorated due to rapidly increasing heavy vehicles, as well as inundation/flood except the surface of the sections of 12.6 km from Phnom Penh and between Sri Sophorn and Poipet where asphalt concrete (AC) is adopted to their surfaces.

3. Under such situation, Japan International Cooperation Agency (JICA) dispatched a survey team to Cambodia in November 2010 and reached agreement to conduct the Preparatory Survey on improvement of North Section (between Battambang and Sri Sophorn) and South Section (between Prek Kdam Bridge and Thlea Ma’am) of NR5. The survey named as “Preparatory Survey for National Road No.5 Rehabilitation Project” started in February 2011. As the result of this survey the North Section (Approx. 68 km) was selected as the high priority section.

4. Following the RGC's request to ensure sustainable transportation of the NR5, the South Section (Approximately 139Km) has been also surveyed by the consultant team since January 2013. The survey named as “Preparatory Survey for National Road No.5 (South Section) Improvement Project”. From a viewpoint of consistency in road improvement, RGC requested that remaining section of NR5 (between Thlea Ma’am and Battambang including the bypass around Pursat and between Sri Sophorn and Poipet Section) be surveyed and this survey started in September 2013.

5. The RAP contains the measures to be carried out by the Inter-ministerial Resettlement Committee (IRC) of which the Ministry of Public Works & Transport (MPWT) is a member to avoid and/or minimize impacts on the affected households (AHs), particularly on their sources of livelihood, and for the purpose of improving or at least restoring their standards of living to pre-project level consistent with the JICA Guidelines for Environmental and Social Considerations (April 2010).

6. The purpose of the RAP is to identify the impact on the local population of upgrading and improvement of the road; and to provide measures for compensation where the population is negatively affected by the work, primarily through the acquisition of farmland and encroachment on to residential and commercial sites.

7. AHs are grouped into three broad categories, viz. Individual, Household and Communities, and other sub-groups are defined within each group. In particular within the household category, there are vulnerable groups defined as those that are socially or economically disadvantaged and who will suffer more economically and socially from relocation and improvement than the general population.

8. AHs falling into one or more of the following categories are defined as vulnerable groups;

- (i) households headed by women with dependents,
- (ii) disabled household heads with no other means of support,
- (iii) households falling under the generally accepted indicator for poverty, and
- (iv) children (younger than 18 years old) and the elderly (older than 60 years old) households who are landless and with no other means of support.

9. From September 2013 - January 2014, a RAP has been prepared based on census and Inventory of Loss (IOL), baseline socio-economic survey (SES) and Stakeholder Meeting. The RAP has been prepared based on i) census and inventory of all affected households; ii) baseline SES; and iii) replacement cost study for affected land, structure and trees.

10. Centre of the resettlement policy is that the affected people will be compensated for their lost assets at replacement cost and provided with rehabilitation assistance to ensure improvement, or at least maintaining their living standards and income to the level they would have without the Project. The cut-off date for the existing NR-5 from Thlea Ma'am/PST (PK: 171+000) to Battambang (PK: 282+200) and from Sri Sophorn (PK: 366+250) to Poipet (PK: 402+000) is on **2nd September 2013**, and for Pursat Bypass is on **30th December 2013**.

11. Refer to the IOL results, 2,422 households to be affected by the Project. Among them, 224 AHs (247 cases) will lose their private land. A total of 296,069.07 m² of private land along Pursat bypasses will be acquired for the Project. Of these, 90.87% (269,026.84 m²) is used for growing rice.

12. A total of 819 AHs along NR-5 and the Pursat bypass, whose main structures (house, house-shop and/or shop/restaurant) will be affected by the Project. With regard to fruit and timber trees, a total of 5,792 trees of various species and age in NR-5 and the bypass have been counted during the IOL. The affected fruit and timber trees are not commercially grown, meaning they are sporadically planted.

II. Management and Monitoring

13. The RAP requires that the external agency is contracted to provide external monitoring on the Implementation of the approved RAP. The external monitor will indicate any corrective measures necessary to the approved RAP during its implementation.

14. A particular responsibility of the EMA will be to monitor and evaluate, based on the approved RAP, the effectiveness of measures to replace any loss and livelihoods of AHs and of measures to utilize resettlement planning and implementation to maximize the benefits to the immediately adjacent and wider populations of the road improvement and of its integration with social, economic and infrastructural development in the road corridor and the wider region.

III. Requirement for external monitoring

3.1 Monitoring and Evaluation

15. The monitoring and evaluation agency will address specific issues as the following:

- (i) Field check/site visits coordinated with the resettlement activities that are taking place based on the approved RAP:
 - a) Compensation payments, participatory design of relocation and rehabilitation options, and relocation;
 - b) Random review of DMS forms, if complaints exist, compared to the inventory of assets and entitlements; and

- c) Random review of entitlement and compensation documents to ensure that the assessment of compensation is based on the agreed compensation matrix and that all entitlements have been accurately applied;
- (ii) Payment of compensation and allowances as per approved Update RAP (URAP). Identify whether all AHs are covered under the URAP and confirm that they are all eligible for compensation, resettlement and rehabilitation assistance, irrespective of tenure status, social or economic standing, and any such factors that may discriminate against achieving the project objectives.
- (iii) Timing of disbursement of payment and documentation Detailed Measurement Survey (DMS) and payments;
- (iv) Public consultation and awareness of resettlement entitlements;
- (v) Coordination of resettlement activities with the construction schedule;
- (vi) Land acquisition and transfer produces;
- (vii) Progress of construction/rebuilding of structures on residual land or to new relocation sites;
- (viii) Level of satisfaction of AHs with the provisions of each kind of compensation and implementation of the URAP;
- (ix) Grievance redress mechanism (documentation, process, and resolution);
- (x) Capacity of AHs to restore/re-establish livelihoods and living standard. Special attention will be given to relocating AHs and vulnerable AHs;
- (xi) Trends in living standards. Throughout the RAP implementation process, the EMA will observe and conduct surveys to monitor the progress AHs are making to restore living standards. Special attention will be paid to any differences based on gender. Any potential problems in the restoration of living standards will be reported;
- (xii) Effectiveness, impact and sustainability of entitlements and rehabilitation measures and the needs for further improvement, as required under the approved RAP;
- (xiii) Gender impacts and strategy;
- (xiv) Capacity of AHs to restore/reestablish their livelihood and living standards. Special attention provided or to be provided to severely affected and/or vulnerable households;
- (xv) Resettlement impacts caused during construction activities; and
- (xvi) Receive complaints from AHs if any and explain to the aggrieved AHs the eligibility for compensation and livelihood restoration set out in the approved URAP.
- (xvii) Participation of AHs in RAP updating and implementation;
- (xviii) Institutional capacity, internal monitoring and reporting.

3.2 Post evaluation

16. Post-evaluation activities will also be carried out one (1) year after the completion of all relocation activities.

IV. Specific Purpose of External Monitoring

17. The Project requires the services of a domestic monitoring and evaluation team to conduct an independent assessment of the extent to which resettlement and rehabilitation objectives are being met.

18. Specifically, the objectives of the monitoring program are:

- (i) to ensure that the standard of living of AHs are restored or improved;
- (ii) to monitor whether the overall project and resettlement objectives are being met in accordance with the approved RAP, and if not to suggest corrective measures;

- (iii) to assess if rehabilitation measures and compensation are sufficient and comply with JICA Guidelines;
- (iv) to identify problems or potential problems; and
- (v) to identify methods of responding immediately to mitigate and resolve problems.

V. Methodology of Monitoring and Evaluation

19. The methods for external monitoring and evaluation include:

- (i) Review of RAP approved by RGC.
- (ii) Check on a random basis the DMS process with AHs from identification to agreement on DMS results.
- (iii) Review of SES baseline prepared during RAP preparation (Feasibility Study) and SES conducted at the detailed design stage. If land acquisition (i.e., RAP implementation) does not occur for at least two (2) years, EMA will carry out another SES.
- (iv) A post resettlement survey will be carried out one (1) year following completion of resettlement activities. Sampling will include 20% of relocating AHs as well as at least 10% of all other AHs. The same AHs interviewed during RAP updating will be interviewed.
- (v) Participatory rapid appraisals (PRA): Consultation with AHs and various stakeholders such as resettlement committee, the Project Management Unit, community leaders; key informant interviews; community public meetings; focus group discussions; direct field observations; and in-depth case studies of good practices and problems identified by internal or external monitoring and required special efforts to resolve.
- (vi) Random checks of payments disbursed to AHs during monitoring. The EMA will submit a post evaluation report per project one (1) year following completion of resettlement activities.

VI. Team Composition, Timing, and Submission of Reports

20. The domestic EMA will be composed of one team leader with extensive experience in monitoring and evaluation of resettlement activities in Cambodia and with strong ability in preparing resettlement compliance/monitoring reports. He/she should demonstrate good communication skill and have at least a bachelor degree in a relevant field. The team leader will be assisted by two (2) social enumerators. All reports will be submitted to IRC and MPWT.

21. The monitoring work will be consisted in period of two (2) years and post evaluation will be conducted one (1) year after completion of all resettlement activities.

22. The monitoring reports will include one inception report, 8 quarterly monitoring reports, one base line survey report (six months after signing the contract) and one post evaluation report.

23. Duration of Field visits and report preparation will be as follows:

No.	Position	Working Day	Number	Total Input
<u>Monitoring Work</u>				
1	Team Leader	178	1	178
2	Social Enumerator	119	2	238
<u>Base Line Survey</u>				
1	Team Leader	50	1	50
2	Social Enumerator	30	2	60

No.	Position	Working Day	Number	Total Input
<u>Post Evaluation</u>				
1	Team Leader	50	1	50
2	Social Enumerator	30	2	60
Total				636

24. Submission of inception and quarterly report will be within two weeks (14 days) after monitoring activities while submission of post-evaluation report will be within one (1) month after post-evaluation activities.

25. The quarterly report will summarize the findings of the EMA, including (a) progress of RAP implementation, including any deviations from the provisions of the RAP; (b) identification of problem issues and recommended solutions to inform implementing agencies and resolve issues in a timely manner; (c) identification of specific gender issues, as relevant; and (d) report on progress of the follow-up of issues and problems identified in the previous reports.

VII. Expression of Interest

26. Please prepare an estimation of the time and finances required to undertake this work. Should you be awarded the contract, a price would be negotiated to undertake and initial consultation and investigation with the community, after which a fixed amount contract would be set and agreed.

Expressions of interest should be addressed to:

27. [Mr. XXX, Resettlement Department, Ministry of Economy and Finance, St 92, Sngkat Wat Phnom, Khan Daunpenh, Phnom Penh]

28. Expressions of interest should be received no later than [time, date]

29. Inquiries may be directed to: [INSERT name, position, phone number]

Appendix 3: Terms of Reference for Income Restoration Programs

Terms of Reference for Training and Income Restoration

I. Background Information

1. A Training and Income Restoration Program (IRP) is part of the compensation package provided to all severely affected households and vulnerable affected households by works and land acquisition for the National Road No.5 Improvement Project (Middle Section). Severely affected households include but not limited to the affected households who will (i) lose 20% or more of their total productive land (income generating) and/or assets, and (ii) have to relocate due to the Project.
2. A Consulting firm/Non-Government Organization (NGO) will undertake overall management of the Training and IRP, and will be appointed for that purpose by Inter-ministerial Resettlement Committee (IRC) in the Ministry of Economy and Finance (MEF). The Program will be supervised by the Resettlement Department of the Ministry of Economic and Finance (RD/MEF).
3. The Consulting firm/NGO will directly administer the off-farm training and IRP and will, for that purpose, manage a Training Fund and Income Restoration Training including an Apprenticeship Program¹⁰ (i.e. vocational training) and agricultural extension and training for the entitled AHs. It will provide management support for the Agricultural Relocation and Extension Program and will provide a training of trainers program for the Provincial and District agencies taking part.
4. From September 2013 - January 2014, a RAP has been prepared based on census and Inventory of Loss (IOL), baseline socio-economic survey (SES) and Stakeholder Meeting. The RAP has been prepared based on i) census and inventory of all affected households; ii) baseline SES; and iii) replacement cost study for affected land, structure and trees. Refer to the IOL results, 2,422 households to be affected by the Project. Among them, 224 AHs (247 cases) will lose their private land. A total of 296,069.07 m² of private land along Pursat bypass will be acquired for the Project. Of these, 90.87% (269,026.84 m²) is used for growing rice. A total of 819 AHs along NR-5 and the Pursat bypass, their main structures (house, house-shop and/or shop/restaurant) will be affected by the Project. With regard to fruit and timber trees, a total of 5,792 trees of various species and age in NR-5 and the bypass have been counted during the IOL.

II. Appointment of NGO/Consulting firm

5. For that purpose IRC proposes to enlist the services of suitably qualified Consulting Firm or NGO to develop and implement the IRP which is required for the severely affected households and vulnerable affected households.
6. The Consulting firm/NGO should have the following qualifications:
 - (i) Must have good track records in designing and implementing IRP and Gender Development Program within Cambodia;
 - (ii) Must have the necessary community development and gender orientation and experience to appropriately deal with the poor and vulnerable affected households;
 - (iii) Must be familiar with the use of Participatory Rapid Appraisal tools; and
 - (iv) An inclusion of Gender Specialist in the Team.

¹⁰ The apprenticeship program is available for one member of the severely and/or vulnerable affected households, although all the working adults who belong to severely and/or vulnerable affected households are eligible to agricultural extension and training.

III. Objectives of Training and Income Restoration Program

7. The Consulting firm/NGO shall undertake overall management of the Training and IRP, and will be appointed for that purpose by the IRC. The Program will be supervised by RD/MEF.

3.1 General objective

8. The general objective or goal of the program is to minimize the impact of the project on the livelihoods of affected households, to restore their income and to reduce poverty and social exclusion in the project area.

3.2 Specific project purposes

9. The specific project purposes are:
 - (i) to improve the vocational skills of severely and/or vulnerable affected households by other means to restore and improve their livelihoods and incomes from off-farm (non-agricultural) employment; and
 - (ii) to provide opportunities for production and marketing of crops for households severely affected by losses of land, by means of the provision of appropriate and sustainable IRPs.

IV. Activities

10. To prepare the training and IRP, the Consulting firm/NGO will carry out the following tasks:
 - (i) Carry out Situational and Needs Assessment Analysis
 - Analyze existing sources of income of severely and/or vulnerable affected households and existing sources of income in the relocated area to establish a baseline to gauge the success of IRP and estimate current actual income of the affected households;
 - Conduct consultations, needs, aptitude, and preference surveys among the affected households;
 - Determine whether poor/vulnerable affected households have special needs different to other households;
 - Identify the major socio-economic situations and problems of the affected households and it must be understood in the context of the basic profile and culture of the affected communities and the concrete descriptions of their way of life and livelihoods.
 - (ii) Identify existing or planned programs of the Government, NGOs, and other agencies within the project area to design appropriate strategies to link up with or expand such programs.
 - (iii) Prepare a gender strategy to include enhancement of opportunities for women's participation, and to provide women increased opportunities to learn new skills and participate in the decision-making process, and take advantage of new employment and income-generating opportunities.
11. Based on the results of the activities above, the Consulting firm/NGO will design the appropriate training and sustainable IRPs based on the number of severely and/or vulnerable AHs.

4.1 Off farm training

12. The Consulting firm/NGO will conduct a training needs survey during the first month of the program, making use of data from existing socio-economic surveys of the Project. On this

basis the Consulting firm/NGO will provide 6 months vocational or pre-vocational training to a member of each severely affected household either household head, spouse, son or daughter.

13. Training will be mainly in skills for which there is an established employment demand, but may include basic literacy and numeracy. Skills for which training has provisionally been proposed include crafts production, building trades, motor repair, languages, computer, hairdressing and tailoring.

4.2 Job creation

14. Job creation will be undertaken by the Consulting firm/NGO as 6 month apprenticeships with established enterprises, if available in the area, primarily in Pursat, Battambang and Banteay Mean Chey province aimed at providing on-the-job training and employment for a member in the severely and/or vulnerable affected households.
15. The Consulting firm/NGO will also facilitate hiring of affected households on a priority basis on ongoing project construction activities in order for affected households to benefit directly from the Project.

4.3 Small agricultural and agro-industrial credit

16. The Consulting firm/NGO will facilitate access to existing credit program such as small agricultural production or agro-industrial loans. Loans will be for plant materials, livestock, on-farm irrigation, agricultural tools and equipment, and for small agricultural, depending on the outcome of training capability of the trainees.

4.4 Agricultural extension and training

17. The Consulting firm/NGO will provide training of trainers (concerned Provincial Departments in each of the two provinces) and management support for an agricultural extension program. Agricultural extension and farmer training will be specifically for land use and production development such as livestock, cash crop, home garden and etc. The Consulting firm/NGO will also provide training for women in agricultural and food processing and marketing. All the working adults who belong to severely and/or vulnerable affected households are eligible to this program.

4.5 Access to small enterprise credit

18. The Consulting firm/NGO will facilitate access to existing credit programs to enable affected households to obtain small enterprise loans. Loans will be for crafts production equipment, tools for construction or repair work, and for shop and stall equipment and stock.

V. Staffing and Other inputs

19. The Consulting firm/NGO will provide training personnel in accordance with the following requirements. Durations given below are indicative and subject to variation, during the currency of the services, by agreement with MEF, and estimated on the following basis.
 - (i) It is assumed that the training and income restoration will be completed within 24 months;
 - (ii) Person -month of personnel has been considered only the period stayed on the site or relevant institution, organizations or factories for training purpose. Time spent in other place such as Home office of Phnom Penh shall not be included in the person-month.

Personnel Inputs of Consulting Services

Position	Number	Person-month ¹¹
Team Leader	1	12
Vocational Trainer	4	24
Credit Coordinator	2	8
Apprenticeship Trainer 1	2	12
Agricultural Trainer 1	2	14
Agricultural Trainer 2	2	12
Total	13	82

VI. Requirement for report and Reporting

6.1 Requirement for report

20. The Training and IRP must include concrete actions for income restoration, including budget, timetables, responsibility for implementation, economic assumptions and risks and contingency arrangements. The Reports will include, but not limited, to the following:

21. Inception report

- A review of current socioeconomic conditions of the affected household including income baseline. If the existing baseline data is not sufficient, the Consulting firm/NGO is required to carry out supplementary socio-economic survey;
- A summary of Affected households' preferences for training and income restoration (indicating description of methods used to elicit Affected households' views);
- A summary of potential training and IRPs (based on identified economic activities and opportunities prevalent in the area) and options available to affected households and of the process of matching affected households to particular programs or activities;
- A gender strategy.

22. Training and IRP plan

- Detailed feasibility studies of the technical, economic, financial and institutional viability of the proposed IRP¹², including realistic estimation of incomes to be received by participating affected households and the number of affected households that can participate in each activity;
- A time-bound plan on specific programs for affected households who have lost their productivity means;
- A time-bound plan for development of human capital (appropriate trainings which have an established employment demand);
- A time-bound plan on job creation and provision of access to capital for small enterprise, small agricultural, and agro-industrial credit;
- Arrangements and indicators for monitoring the effectiveness of training and IRPs and for modifying plans found to be ineffective;
- Budget and Implementation Schedule.

¹¹ The amount of person-month will be revised during the RAP updating.

¹² Can be existing or planned programs of the Government, NGOs, and other agencies within the project area with appropriate strategies to link up with or expand such programs.

23. Progress reports (Quarterly)

- The content will include progress based on arrangements and monitoring indicators as set out in the income restoration plan report. It will also include satisfaction of affected households, problems encountered and strategies or resolutions agreed on.

24. Completion report

- It will include concise history of the program, evaluation of the implementation, including financial audit statements.

6.2 Reporting

25. The selected Consulting firm/NGO will submit the following to IRC-MEF:

- Inception Report, one month after mobilization
- Training and Income Restoration Plan, within two months after submission of Inception report (contents as indicated in section VI above),
- Quarterly progress reports
- Completion Report

VII. Schedule

7.1 Schedule

26. The selected consulting firm/NGO for the IRP program will be hired for two and a half years. The consulting firm/NGO will be engaged full-time for the first two years while in the third last year, the consulting firm/NGO will provide back-stop support to the participating affected households, as needed. Post-IRP evaluation will be carried at the end of year 3 or completion of the program.

Appendix 4: Inventory of Loss and Socio-Economic Survey Questionnaire Form

INVENTORY OF LOSS AND SOCIO-ECONOMIC QUESTIONNAIRE

QID:

Date of interview:...../...../.....

Starting time:.....

Interviewer's name:.....

Ending time:.....

Supervisor's name:.....

Village Headman:

I. LOCATION

☐

1=NR#5 (Thlea Ma'am - Battambang)

2= NR#5 (Sri Sophorn - Poipet)

3= Pursat Bypass

PK: 1= Left 2= Right ☐ (Direction is from Phnom Penh to Poipet).

House No: Village:

Commune: District: Province:

1.1 Do you know, what is size of the ROW (NR-5)? Left:m Right:m

1.2 Distance from road centreline to people's housem (first column or wall).

1.3 Which option do you prefer for the Pursat city?

1= Flyover 2=NR-5 widening 3=Bypass

☐

1.4 Are there herd animals traverse in this area? 1=Yes 2=No

☐

If yes, what support do you need from the project:

1.5 Do you think the bypass construction will disturb to people fishing? ☐ Yes ☐ No

If yes, what is the reason?

1.6 Tick the option that will be affected the HH properties:

- ☐ in interval 0 – 12.5m
- ☐ in interval 12.5 – 20.0m
- ☐ in interval 0 – 20.0m

II. PROFILE OF HOUSEHOLD HEAD

Ask for head of household (if not present ask spouse or other adult, but over 18 years old)

2.1 H/H Name:

Call Name:

2.2 Age:

Sex: Male ☐

Female ☐

2.3 Occupation:

2.4 Language and Ethnic group: ☐

Code: 1=Khmer 2=Chinese 3=Cham 4= Vietnamese
5=Other (specify).....

2.5 Religion: ☐

Code: 1=Buddhism 2=Muslim 3=Christianity
4=Other (specify).....

2.6 The respondent is the household head? ☐ Yes (If yes go to 2.9) ☐ No

2.7 If no, what is the relationship with the household head?

Name of the respondent:

2.8 Age: **Sex:** Male ☐ Female ☐

2.9 Fill HH head status in the box below (multi answers) ☐

1= Aged (From 60 years old and older) 2=Widow 3=Disabled 4=Landless
5= Income<20\$/month/person (National Poverty Line for Urban Area-2007)
6= Loss agricultural land from 20% of productive land (bypass)
7= Affected on main house from 40% 8= Loss of business or selling place

III. SOCIOECONOMIC PROFILE OF AFFECTED HOUSEHOLD

3.1 How many members are in the household?

3.2 How many couple are there in the household?

3.3 If there is more than one family, who are living in this house, give all.

No.	Relationship to H/H (code)	Age	Sex 1=M 2=F	Marital status (code)	Literate 1=No 2=Yes	School attending 1=No 2=Yes	# Years of graded completed education	Working Activities (code)		
								1 st	2 nd	3 rd
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

Code B: 1=Self, 2=Spouse, 3=Son/Daughter, 4=Parent,
5=Brother/Sister, 6=Relative, 7=Other (specify).....

Code E: 1=Single, 2=Married, 3=Divorced/separate 4= Widowed
5 = Other.....

Code I, J and K:

00 None or Unable to work	09 Batery charging	18 Government officer
01 Small business	10 Construction Worker	19 Manufacturer/Craftsman
02 Food processing for sale*	11 Garment factory worker	20 Farmer (on own farm)
03 Hotel/tourism/restaurant	12 Company staff	21 Fishman
04 Hair cut/dresser/Beauty shop	13 Credit provider/ Money exchange	22 Livestock Raising
05 Wedding host	14 Motor transporter	23 NGO staff
06 Merchant/Market trader	15 Taxi driver	24 Migration out for job
07 Machinery/Vehicle mechanic	16 Agricultural laborer/Worker	25 Pupil/Student
08 Electrician	17 Non agricultural laborer/Worker	26 Other (specify)

3.4 Household Assets

3.4.1 Agricultural equipments:

Equipment types	Number	Total Cost (USD)	Equipment types	Number	Total Cost (USD)
Oxcart			Tractor		
Plow			Hand tractor		
Harrow			Rice mill machine		
Water pump			Other.....		

3.4.2 Other Assets:

Equipment types	Number	Total Cost (USD)	Equipment types	Number	Total Cost (USD)
Bicycle			TV/VCR/VCP		
Motorbike			Sewing machine		
Bamboo rail			Air conditioner		
Car/ Pickup/Minivan			Washing machine		
Truck			Refrigerator		
Boat without engine			Telephone		
Boat with engine			Generator		
Radio/Cassette Player			Other (specify)		

3.4.3 Livestock:

Type of livestock	Total Number		Sales of livestock in last year	
	Quantity	Value in USD	Quantity	Value in USD
Oxen				
Buffalo				
Pigs				
Horses				
Chickens				
Ducks				
Other (spec.).....				

3.4.4 Main Trees:

Code of Trees

1=Bamboo	2=Banana	3=Coconut	4=Tamarind
5=Chan Kiri	6=Sapodilla	7=Deum Chan	8=Kamping Reach
9=Kantuot	10=Khvet	11=Jack Fruit	12=Korki
13=Kor	14=Krasang	15=Mkak	16=Longan
17=Pring	18=Jujube	19=Sdau	20= Orange
21=Soda	22=Grapefruit	23=Custard apple	24=Sour sop

25=Guava
29=Mango
33=Other.....

26=Teuk Dos Kou
30=Papaya

27=Acacia/Eucalyptus
31= Sugar Palm

28=Lemon
32=Cashew

No.	Tree types	Unit	Total Quantity	Income in last year (Riel)	Number of affected trees	
					0 – 12.5 (m)	12.5 – 20.0 (m)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
Total Income (Riel)						

3.4.5 Land and Agricultural products:

A. What is your affected land in ROW? (The question "A" is not for bypass)

Land Category	Total of using (m ²)	Affected Area		
		Length (m)	Width (m)	Size (m ²)
Rice field (Sre)				
Orchard (Chamkar)				
Flooded Area				
Commercial				
House Plot / Home Garden				
Other (specify).....				

B. What is your affected land outside ROW?

Land Category	Total Owning (m ²)	Affected Area		
		Length (m)	Width (m)	Size (m ²)
Rice field (Sre)				
Orchard (Chamkar)				
Flooded Area				
Commercial				
House Plot / Home Garden				
Other (specify).....				

C. Agricultural production (all land):

Crop	Area grown (m ²)	Harvested Amount (Kg)	Unit price (Riel/Kg)	Production cost (Riel)	Farming Expend (Riel)	Gross Return (Riel)
Dry rice						
Wet rice						
Vegetable						
Other crop						
Other crop						
Other crop						
Total (Riel)						

3.4.6 House and other Structures

Structure Type Code:

1=House 2=House/Shop 3=Kitchen 4=Bathroom
 5= Grange/Storage 6=Shop/Restaurant 7=Craft / Workshop
 8= Stall / Market stall 9= Animal table/pigsty 10=Other (specify)

Floor Code:

1st=One floor 2nd=Two floors 3=Khmer Style 4= Other

Construction Material Code:

1- Temporary Material 2- Thatch 3- Tin / Fibro/ Plastic Sheet 4- Wood
 5- Bamboo 6- Roofing Tile 7- Floor Tile 8- Mortar
 9- Concrete 10- Earth 11-Metal 12- Brick
 13-Others (spec.):

A. Interval: 0 – 12.5 (m):

Material	Structure: ...	Structure: ...	Structure: ...	Structure: ...
Roof				
Wall				
Floor				
Column				
Story				
Total floor area, m ²				
Affected area, m ²				

B. Interval: 12.5 – 20.0 (m):

Material	Structure: ...	Structure: ...	Structure: ...	Structure: ...
Roof				
Wall				
Floor				
Column				
Story				
Total floor area, m ²				
Affected area, m ²				

- How many years have you been living here? year(s)
- If you rent the affected structure, how much do you pay per month? Riels
- Where will you relocate to resettle? Shifting back, to same village, other village

3.4.7 Other fixed assets:

No.	TYPE OF ASSETS	UNIT	Affected Quantity	
			0 – 12.5 (m)	12.5 – 20.0 (m)
1.	Concrete Well	set		
2.	Pump Well	set		
3.	Timber post with wire	Meter long		
4.	Concrete post with wire	Meter long		
5.	Brick Wall, 100mm	Meter long		
6.	Brick Wall, 200mm	Meter long		
7.	Water supply system	m		
8.	Mortar	m ²		
9.	Vehicle washing place			

No.	TYPE OF ASSETS	UNIT	Affected Quantity	
			0 – 12.5 (m)	12.5 – 20.0 (m)
10.	Toilet			
11.	Other (spec.):			

3.5 Incomes

3.5.1 What are the main sources of total income in your household?

1st ☐

2nd ☐

3rd ☐

4th ☐

- | | | | |
|---------------------|------------------------|----------------------|----------------------------|
| 1. Wages or salary | 2. Farming hired labor | 3. Business or trade | 4. Agricultural production |
| 5. Livestock | 6. Fishing | 7. Equipment making | 8. Equipment renting |
| 9. Transportation | 10. House/land renting | 11. Remittance | 12. Fish culture |
| 13. Fish production | 14. Other (spec.)..... | | |

3.5.2 How much the total income (cash and kind) from these activities in **Last Year**.

1st Riels

2nd Riels

3rd Riels

4th (others)..... Riels

Total in Riels (convert to USD)

3.6 Amount of income getting from the ROW using (0-20m):Riel

Income source:

3.7 Expenses

Annual expenseRiel converts to USD:

3.7.1 Daily expense (recently expense):

Item	Unit	Price per unit/Riel	Total price (Riel)
Rice			
Food (fish, meat, vegetable, and spices)			
Snack			
Wood/charcoal/fuel/gas			
Other (spec.).....			
Total:			
Annual total (365 days)			

3.7.2 Monthly expense:

Item	Unit	Price per unit/Riel	Total price (Riel)
Cosmetics (perfume, powder, and soap)			
Health (drug, treatment fee).			
Water			
Electricity power			
Other service			
Gasoline			
Other (spec.).....			
Total:			
Annual total (12 months)			

3.7.3 Yearly expense:

Item	Unit	Price per unit/Riel	Total price (Riel)
Clothes			
Education (material, tutoring, and meals at school)			
Furniture			
House repairing			
Ceremonies/marriages			
Entertainment/travel			
Other (spec.).....			
Annual total:			

3.8 Health

3.8.1 Where do you and your household members often go for? (Please tick)

Facility	Health Treatment	Serious Illness	Birth Delivery	How far? (Km)
Traditional Midwife				
Traditional Healer				
Drug shop				
Private Pharmacy				
Health Centre				
Provincial Hospital				
Private Clinic				
Private Hospital				
Other:				

3.8.2 What are the three most important problems with the public health services for the people in this village?

- 1 = Lack of beds/Equipment 2 = Not enough medicine
 3 = No physician medical 4 = Poor quality of service
 5 = No midwife 6 = High price
 7 = Long distance 8 = Unsanitary
 9 = Unhelpful staff 10 = Other (Describe).....

1. Most important ☐
 2. Second important ☐
 3. Third important ☐

3.9 Education

3.9.1 How many children in household is primary school age (6-11)? ☐

3.9.2 How many children in household attend primary school? ☐

3.9.3 If children of primary school age, not attending school, main reason for non-attendance? ☐

- 1 = Cannot afford school costs 2 = Have to help in business
 3 = Takes too long to get to school 4 = other (describe).....

3.9.4 How many children in household is lower secondary school age (12-14)? ☐

3.9.5 How many children in household attend lower secondary school? ☐

3.9.6 If children of lower secondary school age, not attending school, main reason for non-attendance? ☐

1 = Cannot afford school costs
3 = Takes too long to get to school

2 = Have to help in business
4 = other (describe).....

3.10 Credit:

3.10.1 Have you taken any loan? ☐ No (**skip to Q. 3.11**) ☐ Yes

3.10.2 If yes, please fill the table below:

When did you borrow money? Month/year	Credit Amount (Riel)	From Whom (Code)	Interest rate %

Code: 1 = Govt. /Bank 2 = NGOs / Society 3 = Landlord / traders
4 = Credit provider 5 = Relative 6 = other (specify).....

3.10.3 What did you use this money for (**multi answers**)? ☐

1 = Food consumption 2 = Health care 3 = Schooling costs
4 = Building/Repairing house 5 = Ceremony/Wedding 6 = Farming
7 = Business improving 8 = Supporting to family members
9 = To meet cost caused by the Project 10 = other (specify).....

3.11 Living condition

A. Water source:

3.11.1 Drinking/cooking: Washing/bathing.....

1= Stream/river 2= Lake/pond 3= Protected well 4 = Unprotected well
5= Rain water 6= Buying 7= Waterworks 8 = other
(specify).....

3.11.2 If buying from vendor, how much it cost per day? Riels

3.11.3 If you collect by yourself, how much time you spend to do so? minutes

3.11.4 Is the drinking water filter? ☐ Yes ☐ No

3.11.5 Is the drinking water boiled? ☐ Yes, always ☐ Yes, sometimes ☐ No

3.11.6 Is the drinking water filtered? ☐ Yes ☐ No

B. Sanitation:

3.11.7 Do you have a pit latrine? ☐ Yes ☐ No

3.11.8 Is there any drainage system near your house? ☐ Yes ☐ No

3.11.9 If yes, please tick in box as follow:

- Proper rain water drainage ☐
- Waste water drainage ☐
- An open drain ☐

C. Energy source:

3.11.10 Lighting:

Cooking:

1 = None

2 = Fire wood

3 = Private generator

4 = State Electricity

5= Battery

6 = Charcoal

7 = Gas / Kerosene

8 = Torch/Rubber

9 = Other (specify).....

3.12 Accessibility to other facility service

Please indicate the distance of following facility service:

Facilities	Average Distance (Km)
Nearest School	
Market	
Religious centre (Pagoda)	
Drug shop	
Health Centre/ Referral(or District) hospital	
Provincial/Municipality hospital	
Police Administrative Post	
Commune Centre	
District Centre	
Other Urban	

IV. PERCEPTION ON THE PROJECT

4.1 What do you think about the project? ☐

0 = No answer

1 = Bad

2 = Good & Bad

3 = Good

4 = Very good

4.2 If good/very good, rank the 3 following statements in the boxes:

- | | |
|--|--|
| <input type="checkbox"/> Improve cargo transportation | <input type="checkbox"/> Improve environment |
| <input type="checkbox"/> Decrease of congestion/accident | <input type="checkbox"/> Create more direct/indirect job |
| <input type="checkbox"/> Improve travel of tourist | <input type="checkbox"/> Reduced daily expenditures |
| <input type="checkbox"/> Attract more investment | <input type="checkbox"/> Flood prevent |
| <input type="checkbox"/> Increase land price | <input type="checkbox"/> Big push to outskirts area (Bypass) |
| <input type="checkbox"/> Improve access other facilities | <input type="checkbox"/> Improve local product marketing |
| | <input type="checkbox"/> Others (spec.) |

4.3 If you think there are some bad things about the project, rank 3 following statement in the boxes:

- | | |
|--|---|
| <input type="checkbox"/> Increase daily expenditures | <input type="checkbox"/> Worsen environmental impact |
| <input type="checkbox"/> Loss of good trading site | <input type="checkbox"/> Decrease household income |
| <input type="checkbox"/> Increase accident | <input type="checkbox"/> Affected on public facilities |
| <input type="checkbox"/> Disturbs families and community | <input type="checkbox"/> Loss occupation |
| <input type="checkbox"/> Loss house / shop | <input type="checkbox"/> Worsen people health condition |

- ☐ Loss of land use in ROW
☐ Worsen access to school

- ☐ Makes people migrate away
☐ other (spec.)

4.4 Will you agree to move your affected properties from PRW? ☐

0 = No answer

1 = Not agree

2 = Agree with assistant

3=Voluntary to move

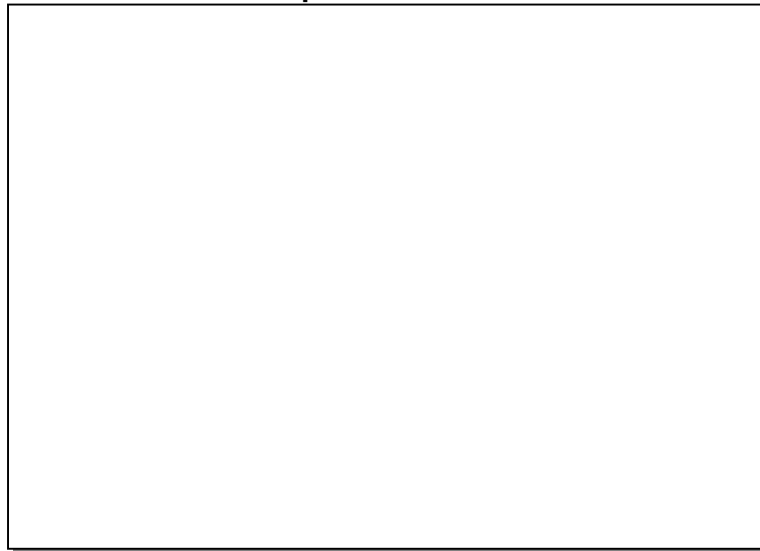
SIGNATURE

Household Head

Village Headman

Interviewer

Sketch map of the affected house



Appendix 5: Reference Tables for Resettlement Budget Calculation

I. UNIT COST

Table I-1: Unit Costs of Land in 2014 at Pursat Bypass Area

Land Category	Average Unit Price (\$/m ²)
Rice field	1.00
Residential	20.00
Commercial	25.00

Table I-2: Unit Costs of Main Structures in 2014

Roof	Wall	Floor	Column	Story	Type	Material Cost USD/M2	Labor Cost USD/M2	Structure Cost USD/M2
Thatch	Thatch	None/Soil	Pole/timber	Single	1A	These types are not available in the Middle Section.		
	Wood >50%	None	Pole/timber	Single	1B			
	Thatch	Bamboo/wood	Pole/ timber	Single	1C	28.50	7.50	36.00
	Wood >50%	Wood>50%/Mortar	Timber/Concrete	Single	1D	30.00	10.50	40.50
Zn/Fibro	Thatch	None/Soil	Pole/ timber	Single	2A	24.00	6.00	30.00
	Zinc/Fibro	None/ Soil	Pole/Iron/ Timber	Single	2B	26.00	8.00	34.00
	Wood	None/ Soil	Pole/ Timber	Single	2C	33.50	13.00	46.50
	Thatch	Bamboo/ Wood	Pole/ Iron	Single	2D	46.00	13.50	59.50
	Thatch	Wood/ Mortar	Timber/ Concrete	Single	2E	50.50	15.00	65.50
	Zin/ Fibro	Bamboo/ Wood	Iron/ Pole	Single	2F	52.50	15.50	68.00
	Zin/ Fibro	Wood/ Mortar	Timber/ Concrete	Single	2G	55.50	17.00	72.50
	Wood	Bamboo/ Wood	Pole/ Iron	Single	2H	58.50	17.50	76.00
	Wood	Wood/ Mortar	Timber/ Concrete	Single	2I	66.50	18.00	84.50

Roof	Wall	Floor	Column	Story	Type	Material Cost USD/M2	Labor Cost USD/M2	Structure Cost USD/M2
	Brick	Mortar	Timber/ Concrete	Single	2J	68.00	19.50	87.50
	Zn/Fibro/ Brick	Wood/ Mortar	Timber/ Iron/ Concrete	Ground & First	2K	This type is not available in the Middle Section		
	Wood/ Brick	Wood/ Mortar	Timber/ Concrete	Ground & First	2L	109.00	35.00	144.00
Tile Roof	Thatch	Wood	Pole/ Timber	Single	3A	This type is not available in the South Section		
	Wood	Wood/ Mortar	Timber/ Concrete	Single	3B	85.00	25.00	110.00
	Brick	Mortar	Concrete	Single	3C	98.00	32.00	130.00
	Wood/ Brick	Wood/Mortar	Timber/ Concrete	Ground & First	3D	130.00	45.00	175.00
Concrete	Brick	Tile	Concrete	E0	4A	180.50	59.00	239.50
				E0 + E1	4B	312.50	105.00	417.50
				E0 + E1 +E2	4C	435.50	160.00	595.50
Awning/Extended Eaves								
Thatch	None	Soil	Pole/Iron	Single	S1	7.00	1.50	8.50
	None	Mortar	Pole/Iron	Single	S2	15.00	3.00	18.00
Zn/Fibro	None	Soil	Pole/Iron	Single	S3	13.50	2.50	16.00
	None	Mortar	Pole/Iron	Single	S4	21.00	4.00	25.00

Table I-3: Unit Costs of Other Structures in 2014

No.	TYPE OF ASSETS	UNIT	Unit Cost, USD
1	Concrete well (deep about 6m)	set	180.0
2	Pumped well (normal)	set	260.0
3	Forecourt or patio /Brick floor	m ²	9.0
4	Carrolage	m ²	6.5
5	Concrete mortar	m ²	18.0
6	Concrete road	m ²	25.0
7	Vehicle washing place	set	160.0
8	Separated toilet (S<3m ²)	set	170.0

No.	TYPE OF ASSETS	UNIT	Unit Cost, USD
9	Cement culvert (Ø 0.8m x 1m)	m	23.0
10	Wooden bridge	m ²	28.5
	<u>FENCE</u>		
11	Pole post with bamboo bar	lm	5.5
12	Pole post with net/barbed wire	lm	6.0
13	Concrete post with net/barbed wire	lm	7.0
14	Normal brick fence (100mm)	lm	47.0
15	Normal brick fence (200mm)	lm	68.0
	<u>PETROL STATION</u>		
16	Petrol Measure	set	650.0
17	Fuel Tank (10,000L)	set	3,700.0
	<u>GRAVE/STUPA/CHEDEY</u>		
18	Concrete grave	set	2,500.0
19	Chedey/Stupa (7.0m x 4.0m x 4.0m)	set	3,200.0
20	Spirit house with support-leg (small)	set	30.0
	<u>GATEWAY</u>		
21	Normal pagoda gate (3.8m x 7.8m)	set	7,000.0
22	Gate of public service office (Normal) ¹³	set	1,700.0

Table I-4: Unit Costs of Crops and Trees in 2014

No.	Description	Unit	Qty	Yield per year				Cost of Seedling USD/ Unit	Year for Compens-ation	Unit Cost USD	Total Price USD in 2014
				Unit	Qty	USD / Unit	Total USD				
1	Bamboo	Thicket	1	Tree	6	1.00	6.00	0.5	3	6.00	18.5
2	Banana (mature)	Tree	1	bunch	5	0.50	2.50	0.5	1	2.50	3.0
3	Coconut	Tree	1	Fruit	40	0.25	10.00	0.5	5	10.00	50.5
4	Tamarind	Tree	1	Lump Sum			7.50	0.5	6	7.50	45.5
5	Chan Kiri	Tree	1	Market Price							22.0
6	Sapodilla	Tree	1	Kg	15	0.40	6.00	0.5	3	6.00	18.5
7	Phyllanthus/Kantuot	Tree	1	Lump Sum			3.00	0.5	3	3.00	9.5
8	Kamping Reach	Tree	1	Fruit	250	0.03	7.50	0.5	4	7.50	30.5
9	Elephane apple/Kwet	Tree	1	Fruit	100	0.08	8.00	0.5	4	8.00	32.5
10	Jackfruit	Tree	1	Fruit	6	2.50	15.00	0.5	4	15.00	60.5
11	Sour fruit/Krasaing	Tree	1	Fruit	200	0.03	6.00	0.5	4	6.00	24.5
12	Korki	Tree	1	Market Price							51.0
13	Jambolan plum/Pring	Tree	1	Kg	40	0.15	6.00	0.5	5	6.00	30.5
14	Jujube	Tree	1	Kg	7	0.50	3.50	0.5	3	3.50	11.0

¹³ The public service office means such as school, health center, commune center, administrative police office, etc.

No.	Description	Unit	Qty	Yield per year				Cost of Seedling USD/ Unit	Year for Compensation	Unit Cost USD	Total Price USD in 2014
				Unit	Qty	USD / Unit	Total USD				
15	Hog plum/Mkak	Tree	1	Kg	30	0.25	7.50	0.5	5	7.50	38.0
16	Deum Mean (longan)	Tree	1	Kg	11	1.50	16.50	0.5	4	16.50	66.5
17	Sorghum/Sdao	Tree	1	bunch	25	0.50	12.50	0.5	3	12.50	38.0
18	Orange	Tree	1	Fruit	50	0.15	7.50	1.0	5	7.50	38.0
19	Pomelo/Grapefruit	Tree	1	Fruit	20	0.50	10.00	0.5	4	10.00	40.5
20	Custard-apple	Tree	1	Fruit	25	0.20	5.00	0.5	2	5.00	10.5
21	Sour sop	Tree	1	Kg	12	0.50	6.00	0.5	3	6.00	18.5
22	Guava	Tree	1	Kg	15	0.25	3.75	0.5	2	3.75	8.0
23	Milk fruit/Teuk Dos	Tree	1	Fruit	100	0.10	10.00	0.5	5	10.00	50.5
24	Eucalyptus / Acacias	Tree	1	Market Price							10.0
25	Lemon	Tree	1	Fruit	100	0.05	5.00	0.5	2	5.00	10.5
26	Mango/get income	Tree	1	Lump Sum			13.50	1.0	5	13.50	68.5
27	Papaya	Tree	1	Fruit	12	0.50	6.00	0.5	1	6.00	6.5
28	Sugar Palm	Tree	1	Kg	12	0.75	9.00	0.5	8	9.00	72.5
29	Cashew		1	Kg	2	4.00	8.00	0.5	3	8.00	24.5
30	Other tree	Tree	1	Lump Sum							10.0

* Unit Cost = (Number/Quantity of harvest per year) x (Market price) per unit

Compensation rate per Tree = (Unit cost) x (Number of years it will mature) + cost of seedling

Example for Coconut tree: (40 fruits per year x USD 0.2) x 5 years + USD 0.5 = USD 40.50

II. COST ESTIMATE

Table II-1: Cost Estimate for resettlement site at Bakan District

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Landless Household : 39 AHs (estimate for 40 AHs)					
1	Land price	m2	4,876.00	4.80	23,404.80
2	Public space and U-turn	m2	920.00	4.80	4,416.00
3	Reserved land 10%	m2	690.00	4.80	3,312.00
4	Site cleaning and grubbing	m2	6,486.00	0.08	518.88
5	Temporary security fence – metal sheet	lm	374.00	14.00	5,236.00
6	Electrical post installation and wire	set	1.00	16,800.00	16,800.00
7	Land filling	m3	9,729.00	6.00	58,374.00
8	Soil compaction	m2	6,486.00	2.00	12,972.00
9	Laterite road	m2	1,026.00	16.00	16,416.00
10	Drainage system and main holds	lm	350.00	45.00	15,750.00
11	Plot demarcation post	post	160.00	12.00	1,920.00
12	Latrine (WC)	set	40.00	250.00	10,000.00
13	Electrical connection fee	HH	40.00	50.00	2,000.00
14	Deep Well	set	4.00	350.00	1,400.00
Subtotal					172,519.68
Contingency (5%)					8,625.98
Total					181,145.66

Table II-2: Cost Estimate for resettlement site at Moung Reussei District

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Landless Household : 14 AHs (estimate for 16 AHs)					
1	Land price	m2	1,680.00	30.00	50,400.00
2	Public space and U-turn	m2	920.00	30.00	27,600.00
3	Reserved land 10%	m2	260.00	30.00	7,800.00
4	Site cleaning and grubbing	m2	2,860.00	0.08	228.80
5	Temporary security fence – metal sheet	lm	242.00	14.00	3,388.00
6	Electrical post installation and wire	set	1.00	16,800.00	16,800.00
7	Land filling	m3	1,430.00	6.00	8,580.00
8	Soil compaction	m2	2,860.00	2.00	5,720.00
9	Laterite road	m2	300.00	16.00	4,800.00
10	Drainage system and main holds	lm	182.00	35.60	6,479.20
11	Plot demarcation post	post	128.00	12.00	1,536.00
12	Latrine (WC)	set	16.00	250.00	4,000.00
13	Electrical connection fee	HH	16.00	50.00	800.00
14	Deep Well	set	2.00	350.00	700.00
Subtotal					138,832.00
Contingency (5%)					6,941.60
Total					145,773.60

Table II-3: Cost Estimate for resettlement site at Ou Chrov District

Item	Description	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Landless Household : 39 AHs (estimate for 40 AHs)					
1	Land price	m2	4,876.00	4.80	23,404.80
2	Public space and U-turn	m2	920.00	4.80	4,416.00
3	Reserved land 10%	m2	580.00	4.80	2,784.00
4	Site cleaning and grubbing	m2	6,376.00	0.08	510.08
5	Temporary security fence – metal sheet	lm	374.00	14.00	5,236.00
6	Electrical post installation and wire	set	1.00	16,800.00	16,800.00
7	Land filling	m3	12,752.00	6.00	76,512.00
8	Soil compaction	m2	6,376.00	2.00	12,752.00
9	Laterite road	m2	1,026.00	16.00	16,416.00
10	Drainage system and main holds	lm	350.00	45.00	15,750.00
11	Plot demarcation post	post	160.00	12.00	1,920.00
12	Latrine (WC)	set	40.00	250.00	10,000.00
13	Electrical connection fee	HH	40.00	50.00	2,000.00
14	Deep Well	set	4.00	350.00	1,400.00
Subtotal					189,900.88
Contingency (5%)					9,495.04
Total					199,395.92

Table II-4: Cost Estimate for Transport Allowance

Type of relocated structures	Unit	Qty	Unit Rate (\$)	Total, \$
Shop/stall made from light/temporary material	unit	835	20	16,700.00
Shop/stall made from semi-permanent material shift back in ROW	unit	910	20	18,200.00
Shop/stall made from semi-permanent relocate in same village	unit	11	40	440.00
Regular shops and houses shift back in ROW	unit	124	40	4,960.00
Regular shops and houses relocate outside ROW, but in the same village	unit	812	60	48,720.00
House relocating in another village outside of the ROW	unit	92	70	6,440.00
Total	unit	2,784	varies	95,460.00

Table II-5: Cost Estimate for Disruption Allowance, including SAHs

Type of relocated structures	Unit	Qty	Unit Rate (\$)	Total, \$
Severely Affected Household (SAH)	AH	543	200	108,600.00
<i>House, House and Shop, Store/Shop entirely remove from ROW</i>				
House and House-shop will relocate outside the ROW	AH	812	200	162,400.00
Shop/stall will relocate outside the ROW	AH	11	100	1,100.00
<i>House, House and Shop, Store/Shop shift back and remain in ROW</i>				
House and House-shop will shift back in the ROW	AH	124	100	12,400.00
Shop/stall will shift back in the ROW	AH	910	35	31,850.00
Total	AH	2,400	varies	316,350.00

Table II-6: Allowance for Vulnerable Affected Households by factors

Type of Vulnerable Group	Unit	Qty	Unit Rate (\$)	Total, \$
Female headed household (133 factors)	AH	421	100.00	42,100.00
Elderly household head with ≥ 60 Yrs (241 factors)				
Disabled household head (21 factors)				
Landless household (92 factors)				
Poor household with monthly income less than USD 20 per capita (12 factors)				

Table II-7: Cost Estimate for Renting Fee

Renter fee	Unit	Qty	Unit Rate (\$)	Total, \$
#Renter=137 AHs				
$\leq 20\$$ ($\$20 \times 2$ months = $\$40$)	AH	32	40	1,280.00
$20+ - 40\$$ ($\$30 \times 2$ months = $\$60$)	AH	57	60	3,420.00
$40+ - 100\$$ ($\$70 \times 2$ months = $\$140$)	AH	43	140	6,020.00
$100\$+$ ($\$100 \times 2$ months = $\$200$)	AH	5	200	1,000.00
Total	AH	137	varies	11,720.00

Table II-8: Cost Estimate for affected land (public asset), but outside ROW

Items	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Residential land/Home garden	m ²	1,215	20.00	24,300.00
Total				24,300.00

Table II-9: Cost Estimate for affected main structures (public asset)

Items	Unit	Quantity	Unit Rate (USD)	Amount (USD)
2G	m ²	23.75	72.50	1,721.88
2I	m ²	10.85	84.50	916.83
2J	m ²	352.26	87.50	30,822.75
3C	m ²	172.23	130.00	22,389.90
S3	m ²	52.08	16.00	833.28
S4	m ²	110.35	25.00	2,758.75
Total		721.52	varied	59,443.39

Table II-10: Cost Estimate for affected other structures (public asset)

Items	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Concrete Well	set	1	180.00	180.00
Pump Well	set	1	260.00	260.00
Cement Mortar	m ²	1,425	9.00	12,825.00
Separated Toilet	set	1	170.00	170.00
<u>FENCE&GATEWAY</u>				
Concrete post with wire	lm	99	7.00	693.00
Brick Wall, 100mm	lm	816	47.00	38,352.00
Brick Wall, 200mm	lm	46	68.00	3,128.00
Pagoda gate (3.8m x 7.8m)	set	11	7,000.00	77,000.00
Gate of public service office (Normal) ¹⁴	set	9	1,700.00	15,300.00
Total				147,908.00

Table II-11: Cost Estimate for affected trees (public asset)

Items	Unit	Quantity	Unit Rate (USD)	Amount (USD)
Coconut	tree	5	50.5	252.50
Jack Fruit	tree	1	60.5	60.50
Teuk Dos	tree	1	50.5	50.50
Acacia/Eucalyptus	tree	784	10.0	7,840.00
Mango	tree	20	68.5	1,370.00
Other	tree	7	10.0	70.00
Total		818	varied	9,643.50

¹⁴ The public service office means such as school, health center, commune center, administrative police office, party office, etc.

III. Summary of Land Acquisition and Resettlement Costs

No.	Items	Unit	Quantity	Rate (\$/Unit)	AMOUNT (US\$)
A	LAND (Table 1)				839,684.24
1	Rice field	m2	269,026.84	1.00	269,026.84
2	Residential/Home garden	m2	21,079.67	20.00	421,593.40
3	Commercial	m2	5,962.56	25.00	149,064.00
B	STRUCTURES (Table 2)				4,081,918.20
4	1C	m2	76.00	36.00	2,736.00
5	1D	m2	71.00	40.50	2,875.50
6	2A	m2	190.05	30.00	5,701.50
7	2B	m2	2,754.68	34.00	93,659.12
8	2C	m2	1,531.86	46.50	71,231.49
9	2D	m2	169.00	59.50	10,055.50
10	2E	m2	252.76	65.50	16,555.78
11	2F	m2	59.00	68.00	4,012.00
12	2G	m2	14,762.85	72.50	1,070,306.63
13	2H	m2	255.12	76.00	19,389.12
14	2I	m2	15,796.10	84.50	1,334,770.45
15	2J	m2	5,995.19	87.50	524,579.13
16	2L	m2	706.34	144.00	101,712.96
17	3B	m2	401.93	110.00	44,212.30
18	3C	m2	130.22	130.00	16,928.60
19	3D	m2	414.23	175.00	72,490.25
20	4A	m2	323.94	239.50	77,583.63
21	4B	m2	135.41	417.50	56,533.68
22	4C	m2	54.88	595.50	32,681.04
23	S1	m2	268.30	8.50	2,280.55
24	S2	m2	54.58	18.00	982.44
25	S3	m2	4,710.58	16.00	75,369.28
26	S4	m2	17,810.85	25.00	445,271.25
C	OTHER FIXED TRUCTURES (Table 3)				571,675.50
27	Concrete Well	set	11	180.00	1,980.00

No.	Items	Unit	Quantity	Rate (\$/Unit)	AMOUNT (US\$)
28	Pump Well	set	13	260.00	3,380.00
29	Cement Mortar	m2	32,824	9.00	295,416.00
30	Carrolage	m2	1,965	6.50	12,772.50
31	Concrete Mortar	m2	765	18.00	13,770.00
32	Concrete Road	m2	83	25.00	2,075.00
33	Vehicle Washing Place	set	14	160.00	2,240.00
34	Toilet	set	35	170.00	5,950.00
35	Culvert	m	97	23.00	2,231.00
36	Wooden Bridge	m2	98	28.50	2,793.00
37	Timber post with Bamboo	lm	30	5.50	165.00
38	Timber post with wire	lm	1,945	6.00	11,670.00
39	Concrete post with wire	lm	695	7.00	4,865.00
40	Brick Wall, 100mm	lm	2,456	47.00	115,432.00
41	Brick Wall, 200mm	lm	1,002	68.00	68,136.00
42	Petrol Measure	set	19	650.00	12,350.00
43	Fuel Tank (V=10,000L)	set	2	3,700.00	7,400.00
44	Concrete Grave	set	1	2,500.00	2,500.00
45	Chedey/Stupa (7.0m x 4.0m x 4.0m)	set	2	3,200.00	6,400.00
46	Spirit house with support-leg (small)	set	5	30.00	150.00
D	TREES AND FRUIT TREES (Table 4)				162,297.00
47	Bamboo	thicket	31	18.50	573.50
48	Banana	tree	1,412	3.00	4,236.00
49	Coconut	tree	313	50.50	15,806.50
50	Tamarind	tree	40	45.50	1,820.00
51	Chan Kiri	tree	194	22.00	4,268.00
52	Sapodilla	tree	16	18.50	296.00
53	Kantuot	tree	22	9.50	209.00
54	Kamping Reach	tree	35	30.50	1,067.50
55	Khvet	tree	27	32.50	877.50
56	Jack fruit	tree	126	60.50	7,623.00
57	Krasaing	tree	10	24.50	245.00

No.	Items	Unit	Quantity	Rate (\$/Unit)	AMOUNT (US\$)
58	Korki	tree	11	51.00	561.00
59	Pring	tree	97	30.50	2,958.50
60	Jujube	tree	12	11.00	132.00
61	Mkak	tree	9	38.00	342.00
62	Longan	tree	16	66.50	1,064.00
63	Sdau	tree	9	38.00	342.00
64	Orange	tree	26	38.00	988.00
65	Grapefruit	tree	15	40.50	607.50
66	Custard apple	tree	105	10.50	1,102.50
67	Sour sop	tree	23	18.50	425.50
68	Guava	tree	100	8.00	800.00
69	Teuk Dos	tree	53	50.50	2,676.50
70	Acacial/Eucalyptus	tree	1,067	10.00	10,670.00
71	Lemon	tree	11	10.50	115.50
72	Mango	tree	1,166	68.50	79,871.00
73	Papaya	tree	191	6.50	1,241.50
74	Sugar palm	tree	221	72.50	16,022.50
75	Cashew	tree	70	24.50	1,715.00
76	Other	tree	364	10.00	3,640.00
E	ALLOWANCES				465,630.00
78	Transport Allowance (Table 5)	AH	2,784	varied	95,460.00
79	Disruption Allowance, including SAHs (Table 6)	AH	2,400	varied	316,350.00
80	Special Allowance/Vulnerable AHs (Table 7)	AH	421	100.00	42,100.00
81	Tenant's Allowance (Table 8)	AH	137	varied	11,720.00
F	RESETTLEMENT SITE DEVELOPMENT				526,315.19
82	Resettlement site at Bakan district	ls	-	-	181,145.66
83	Resettlement site at MOUNG district	ls	-	-	145,773.60
84	Resettlement site at Ou Chrov district	ls	-	-	199,395.92
G	PUBLIC ASSETS				241,294.89
85	Cost estimate for affected land (Table 8)	m ²	1,215.00	20.00	24,300.00
86	Cost estimate for affected main structures (Table 9)	m ²	721.52	varied	59,443.39

No.	Items	Unit	Quantity	Rate (\$/Unit)	AMOUNT (US\$)
87	Cost estimate for affected other structures (Table 10)	ls	-	-	147,908.00
88	Cost estimate for affected trees (Table 11)	tree	818	varied	9,643.50
SUBTOTAL					6,888,815.00
85	Administrative cost (5%)	ls	-	-	344,440.75
86	NGO/Income restoration (5%)	ls	-	-	344,440.75
87	External Monitoring (2%)	ls	-	-	137,776.30
88	Contingency (5%)	ls	-	-	344,440.75
GRAND TOTAL					8,059,913.55

Appendix 6: Public Assets will be affected by the project

1. Banteay Mean Chey province

QI	Commune	Village	Organization (owner)	PK	Affected Property	Unit	Number /Size
1. Ou Chrov District							
1	Koub	Sorya Thmei	Sala Kraham Primary School	372+870	School gate	set	1.00
2	Koub	Koub Cheung	Soryaram Pagoda	377+520	Mortar	m ²	67.70
3	Koub	Khai Dorn	Chansy Samki Ratanaream Pagoda	381+000	Mortar	m ²	72.00
4	Koub	Yeang Thmei	Ratanak Nimit	383+175	Mortar	m ²	72.00
5	Nimit	Nimit 1	Community	386+530	Rest hall (Type 2G)	1	23.75
6	Nimit	Nimit 1	Nimit Health Center	387+920	Mortar	m ²	63.00
7	Nimit	Kaun Damrei	Nimit Sothy Ream Pagoda	391+850	Rest hall (Type 2I)	m ²	10.85
2. Poipet City							
8	Psar Kandal	Andoung Thma	Yeay Mao Homage Place	397+061	Structure (Type 2J)	m ²	19.20
					Awning (Type S4)	m ²	43.40
					Iron fence	lm	6.00
					Bodhi tree	tree	6.00
9	Psar Kandal	Steung Bat	Customhouse	399+500	Mortar	m ²	800.00

2. Battambang province

QI	Commune	Village	Organization (owner)	PK	Affected Property	Unit	Number /Size
1. Moung Reussei District							
1	Prey Svay	Kraloam Phlout	Kaloam Phlout Pagoda	230+663	Rest Hall (Type 3C)	m ²	16.00
2	Prey Svay	Toul Thnang	Toul Thnang Primary School	232+000	Fence (Concrete post with wire)	lm	45.00
3	Prey Svay	Prey Preal	Prey Svay Commune Center	236+383	Gate	set	1.00
4	Kear	Pour 1	Pouthyeaream Pagoda	244+267	Concrete stair	set	1.00
					Box Culvert	set	1.00
					Gate Railing with Dragon Sculpture	lm	66.00

3. Pursat province

QI	Commune	Village	Organization (owner)	PK	Affected Property	Unit	Number /Size
1. Krakor District							
1	Thnoat Chum	Tram	Community	170+850	Eucalyptus	tree	28.00
2	Thnoat Chum	Tram	Community	172+150	Concrete Well (Deep: 6m)	set	1.00
3	Beung Kantuot	Thlea Ma'am	Community	171+300	Eucalyptus	tree	11.00
4	Beung Kantuot	Thlea Ma'am	Community	171+560	Acacias	tree	52.00
2. Pursat City							
1	Roleap	Tuol Mkak	Community	177+520	Acacias	tree	477.00
2	Prey Nhy	Sala Kamrou	Community	181+015	Acacias	tree	171.00
3	Pheat Prey	Thnoat Tret	Community	190+920	Stone Fence	lm	80.00
					Pring	tree	1.00
3. Kandieng District							
1	Veal	Pou KamBao	Police Post Office	3+800	Structure (Type 2J)	m ²	54.56
					Awning (Type S3)	m ²	52.08
2	Veal	Pou KamBao	Commune Center	3+820	Structure (Type 3C)	m ²	100.64
					Toilet (Concrete Wall)	set	1.00
					Land outside ROW	m ²	1,214.95
					Mango	tree	12.00
					Coconut	tree	5.00
					Jackfruit	tree	1.00
4. Bakan District							
1	Snam Preah	Kampong Svay	Community	191+220	White Pigeon Sculpture	set	1.00
2	Trapaing Chornng	Trapaing Chornng	Mony Vongsaream Pagoda	200+900	Cow Sculpture	set	2.00
					Structure (Type 2J)	m ²	247.00
					Awning (Type S4)	m ²	54.95
					Concrete Fence (100mm)	lm	195.00
					Concrete Gate	set	1.00
					Mortar	m ²	85.00
3	Trapaing Chornng	Koh Kaev	District Education Office	201+120	Structure (Type 3C)	m ²	37.35
					Structure (Type 2J)	m ²	31.50
4	Trapaing Chornng	Koh Kaev	District Agriculture Office	201+188	Concrete Fence (100mm)	lm	36.00
5	Trapaing Chornng	Koh Kaev	Koh Kaev Mony Udom Pagoda	201+204	Concrete Gate	set	1.00

QI	Commune	Village	Organization (owner)	PK	Affected Property	Unit	Number /Size
6	Trapaing Chornng	Koh Svay	Sub-branch Red-Cross	201+443	Concrete Fence (100mm)	lm	60.00
					Teuk Dos Kou	tree	1.00
7	Trapaing Chornng	Trapaing Chornng	CPP Center	201+490	Concrete Fence (100mm)	lm	72.00
					Concrete Gate	set	1.00
8	Trapaing Chornng	Koh Svay	Trapaing Chornng Primary School	201+520	Concrete Fence (100mm)	lm	65.00
					Concrete Gate	set	1.00
9	Trapaing Chornng	Trapaing Chornng	Kandeung Meas Pagoda	201+945	Concrete Gate	set	1.00
10	Trapaing Chornng	Trapaing Chornng		202+000	Concrete Post with Wire	lm	48.00
					Concrete Gate	set	1.00
					Pumping Well	set	1.00
					Concrete Basin (200 mm)	m ³	4.50
					Mango	tree	2.00
11	Trapaing Chornng	Trapaing Chornng	Bakan Pagoda	202+101	Concrete Gate	set	1.00
12	Trapaing Chornng	Koh Svay	NGO: Ponleu Komar	202+143	Concrete Fence (100mm)	lm	73.00
13	Trapaing Chornng	Koh Svay	Trapaing Chornng Health Center	202+216	Concrete Fence (100mm)	lm	21.00
					Concrete Gate	set	1.00
14	Trapaing Chornng	Koh Svay	Bakan District Office	202+237	Concrete Fence (100mm)	lm	42.00
					Concrete Gate	set	1.00
15	Trapaing Chornng	Kroal Krabei	Phum Ou Pagoda	202+334	Concrete Gate	set	1.00
16	Trapaing Chornng	Kroal Krabei	Pit Trang Pagoda	202+760	Concrete Gate	set	1.00
17	Beung Khnar	Prey Phdao	Prey Damrei Pagoda	206+400	Concrete Fence (100mm)	lm	100.00
					Concrete Gate	set	1.00
					Elephant Sculpture	set	1.00
18	Beung Khnar	Khnach Romeas	Pou Serei Vong Pagoda	208+170	Rest Hall (Type 3C)	m ²	18.24
					Concrete Gate	set	1.00
19	Beung Khnar	Beung Khnar	Chre Pagoda	209+522	Concrete Gate	set	1.00
20	Beung Khnar	Prey Svay	Mangkol Vanvealsei Hermitage	211+264	Concrete Gate	set	1.00
21	Beung Khnar	Deum Chress	Disrtict Police Military Office	213+500	Meeting Hall (Type S4)	m ²	12.00
					Concrete Fence (100mm)	lm	46.00
					Concrete Gate	set	1.00
22	Au Ta Poang	Au Ta Poang	Au Tapoang Health Center	215+662	Concrete Fence (200mm)	lm	23.70

QI	Commune	Village	Organization (owner)	PK	Affected Property	Unit	Number /Size
					Concrete Gate	set	1.00
					Mortar	m ²	149.64
					Mango	tree	6.00
23	Svay Daunkeo	Svay Daunkeo 1	Svay Daun Keo Health Center	219+457	Concrete Fence (200mm)	lm	18.00
					Concrete Gate	set	1.00
24	Svay Daunkeo	Svay Daunkeo 1	CPP Office	219+479	Concrete Fence (100mm)	lm	26.00
					Concrete Gate	set	1.00
25	Svay Daunkeo	Nikom Leu	Pou Raingsei Pagoda	219+752	Mortar	m ²	115.50
					Gate Railing with Dragon Sculpture	lm	20.00
					Lion Sculpture	set	2.00
26	Svay Daunkeo	Nikom Leu	Community	220+225	Acacias	tree	45.00