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KINGDOM OF CAMBODIA
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ក្រសួងសេដ្ឋកិច្ច និង ហិរញ្ញវត្ថុ
MINISTRY OF ECONOMY AND FINANCE

N^o 7625 MEF/.....

Inter-Ministerial Resettlement Committee
General Secretariat
Resettlement Department
Fax no. (855-23) 426 682

Phnom Penh, 21 November 2013

H.E. HIROSHI Izaki
Chief Representative
JICA Cambodia Office

Subject: Disclosure of Resettlement Action Plan for the Project of NR No.5 (South Section)

Your Excellency,

A Resettlement Action Plan (RAP) for the Improvement Project of National Road No.5 of Cambodia from Prek Kdam to Thlea Ma'Am (South Section), as a guideline for resettlement implementation, has been endorsed by IRC, and JICA has no objection on its contents.

With reference to JICA's letter No.JC25-658 dated on November 14, 2013, requesting IRC to submit the RAP for disclosure in English on JICA homepage before Loan Appraisal, we would like to submit the RAP for disclosure following the agreed principle for the Project of North Section.

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

Sincerely Yours, 



Mhean Leng
Under Secretary of State
Chairman of Inter-Ministerial Resettlement Committee (IRC)
Ministry of Economy and Finance

Cc: - H.E Touch Chan Kosal, Secretary of State, MPWT



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

**JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

**Preparatory Survey for National Road No.5
Improvement Project (Southern Section)**

Final Resettlement Planning

KATAHIRA & ENGINEERS INTERNATIONAL (KEI)

August 2013

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	:	Serey Saophoan
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; 1st January 2013 for the existing NR-5 and the Kampong Chhnang Bypass, and 11th April 2013 for Udong 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.

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Appendix 1: Project Information Booklet (English Draft Version)

Appendix 2: Terms of Reference for External Monitoring Agency

Appendix 3: Terms of Reference for Income Restoration Programs

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

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 cities such as Kampong Chhnang and Battambang. It is also designated as Asian Highway No. 1 (AH-1) or the Southern Economic Corridor of Greater Mekong Sub-region (GMS). However, the road surface type is mostly DBST and the surface condition is being deteriorated due to rapidly increasing heavy vehicles, as well as inundation/flood. In particular, Northern Section and Southern Section require urgent rehabilitation in view of insufficient road width and poor pavement condition.
3. Under such situation, JICA dispatched a survey team to Cambodia in November 2010 and reached agreement to conduct the Preparatory Survey on improvement of North, South Section and middle section of NR5. Following the RGC's request to ensure sustainable transportation of the NR5, the survey by the consultant team started in February 2011 for North Section, The South Section (Praek Kdam-Thlea Ma'am: approximately 135Km) have been also surveyed by the consultant team since January 2013, while the feasibility study of the Middle Section Thlea Ma'am to Battambang including the bypass around Pursat will be conducted later based on the agreement between the two governments.
4. Generally, a PRW of the project is within ROW which is the public state land, except two bypasses that need to acquire private land for the project implementation. For the South Section of the 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 January to May 2013, a number of Stakeholder Meetings (SHM) were also conducted to allow them understand about the Project.
5. 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 1st January 2013 for the existing NR-5 and KCHN Bypass; and on 11th April 2013 for Udong Bypass.
6. The IOL was conducted along the existing NR-5 and the new bypasses in KCHN and Udong within the PRW of 20 meters from the centerline. Refer to the IOL results, 3,368 households will be affected by the Project. Of the 3,368 AHs, 706 AHs will lose their private land and 1,079 AHs along NR-5 and the two bypasses will lose their main structures (house, house-shop and/or shop/restaurant). A total of 609,483.50 m² of private land in the two bypasses, in which 579,255.87 m² (95.04% of the total affected private land) is rice land, will be acquired for the Project. The affected private land belongs to 1,060 AHs along NR-5, and 19 AHs along the two bypasses. There are a total of 14,326 trees of various species and age in NR-5 and the two bypasses have been counted during the IOL. Except for some trees along Kampong Chhnang Bypass, most are not commercially grown, meaning, they are sporadically planted inside the right-of-way (ROW).

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

Province/District	#AHs by section			Total (AHs)
	NR-5	KCHN Bypass	Udong Bypass	
Pursat/ Krakor district	616	0	0	616
Kampong Chhnang	1,948	585	78	2,611
Baribour district	651	0	0	652
Kampong Tralach district	671	0	78	749
Rolea B'ier district	489	585	0	1,074
Sameakki Mean Chey district	137	0	0	137
Kandal/ Ponhea Leu district	98	0	43	141
Total (the Project)	2,662	585	121	3,368

Data source: Project Survey conducted in January-April 2013

7. The estimated costs for resettlement and land acquisition based on the RCS and the IOL during the project preparatory study is **USD10,037,464.10**, which includes cash compensation and assistance of USD 8,882,711.60, external monitoring and income restoration of USD 266,481.35, administration cost of 5% equivalent to USD444,135.58, and contingency of 5% or equivalent to USD 444,135.58. 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.

8. 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 cities such as Kampong Chhnang and Battambang. It is also designated as Asian Highway No. 1 (AH-1) or the Southern Economic Corridor of Greater Mekong Sub-region (GMS). However, the road surface type is mostly DBST and the surface condition is being deteriorated due to rapidly increasing heavy vehicles, as well as inundation/flood. In particular, Northern Section and Southern Section require urgent rehabilitation in view of insufficient road width and poor pavement condition.

3. Under such situation, JICA dispatched a survey team to Cambodia in November 2010 and reached agreement to conduct the Preparatory Survey on improvement of North, South Section and middle section of NR5. Following the RGC's request to ensure sustainable transportation of the NR5, the survey by the consultant team started in February 2011 for North Section, the South Section (Praek Kdam-Thlea Ma'am: approximately 135Km) have been also surveyed by the consultant team since January 2013, while the feasibility study of the Middle Section Thlea Ma'am to Battambang including the bypass around Pursat will be conducted later based on the agreement between the two governments.

1.2 Resettlement Plan

4. Generally, a PRW of the project is within ROW which is the state land, except the two bypasses that need to acquire private land for the project implementation. For the South 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 January to May 2013, a number of Stakeholder Meetings (SHM) were also conducted to allow them understand about the Project.

1.3 Project Location and Impact Areas

5. NR-5 runs basically to the north through Kandal (KDL), Kampong Chhnang (KCHN), Pursat (PST) Battambang (BTB) and Banteay Mean Chey (BMCH) provinces (see

6. Figure 1-1 for the Project location map). The study has focused only on the South Section of NR-5 with an approximate length of 130 km, starting from PK: 31+570 (from Vatt Phnom)¹ in Praek Kdam, Ponhea Leu District, Kandal Province, to PK: 170+680 in Thlea Ma'am, Krakor District, Pursat Province; and two Bypasses in Kampong Chhnang and Udong cities. The two bypasses are:

- (i) One is Udong Bypass with length of 4.90 km. The bypass will run through in Ponhea Leu district/KDL province and Kampong Tralach District/KCHN Province; and
- (ii) Another bypass is Kampong Chhnang Bypass with a length of 11.80 km. The bypass will run through Rolea B'ier District, KCHN province.

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

Province/District	#AHs by section			Total (AHs)
	NR-5	KCHN Bypass	Udong Bypass	
Pursat	616	0	0	616
Krakor district	616	0	0	616
Kampong Chhnang	1,948	585	78	2,611
Baribour district	651	0	0	652
Kampong Tralach district	671	0	78	749
Rolea B'ier district	489	585	0	1,074
Sameakki Mean Chey district	137	0	0	137
Kandal	98	0	43	141
Ponhea Leu district	98	0	43	141
Total (the Project)	2,662	585	121	3,368

Data source: Project Survey conducted in January-April 2013

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 two bypasses rather than enlarging the existing road sections in populous areas at Udong and Kampong Chhnang City. As a result, the proposed bypasses at Udong and Kampong Chhnang City will reduce the affected main structures (house, house cum shop and restaurant) from 190 to 20 and from 299 to 12 respectively.
- (ii) The PRW (20m-20m) is narrow than the ROW (30m-30m) to minimize resettlement impact.

¹ For the road section funding by China loan, the starting point is from Chrouy Changvar bridge, therefore the end point is PK:30+330 (equal to existing PK:31+570).

- (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

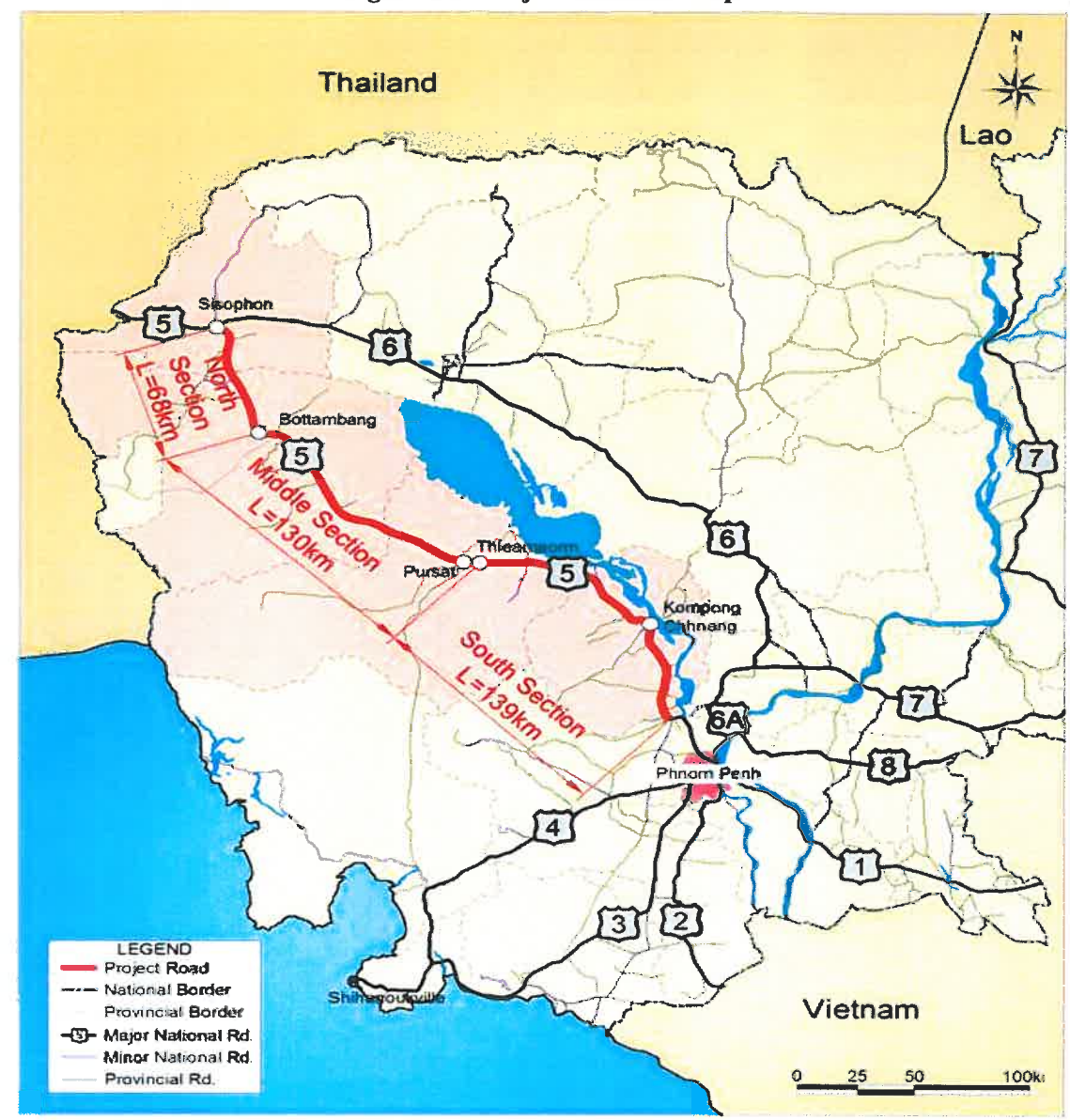


Figure 1-2: KCHN Bypass Location Map

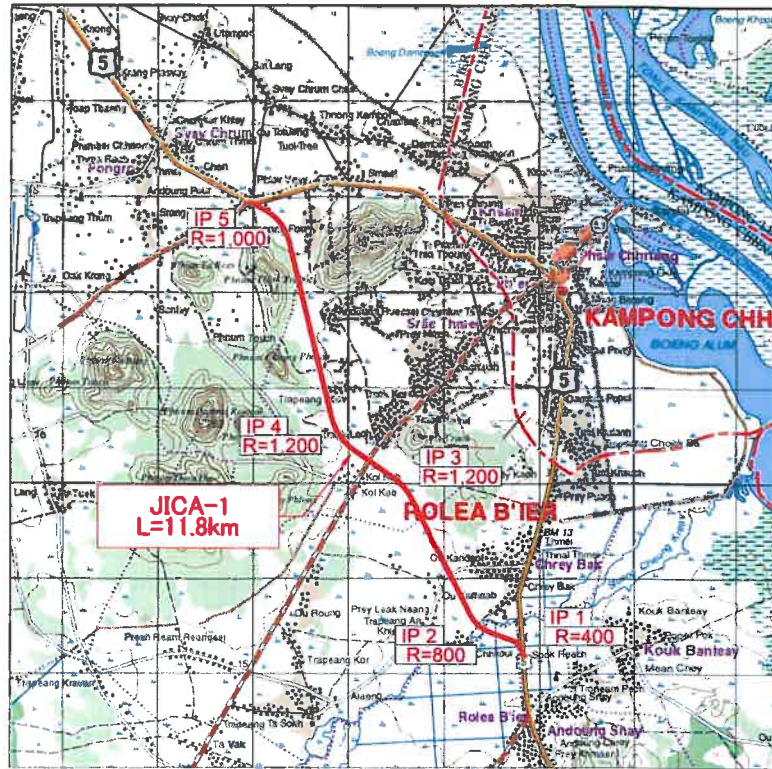
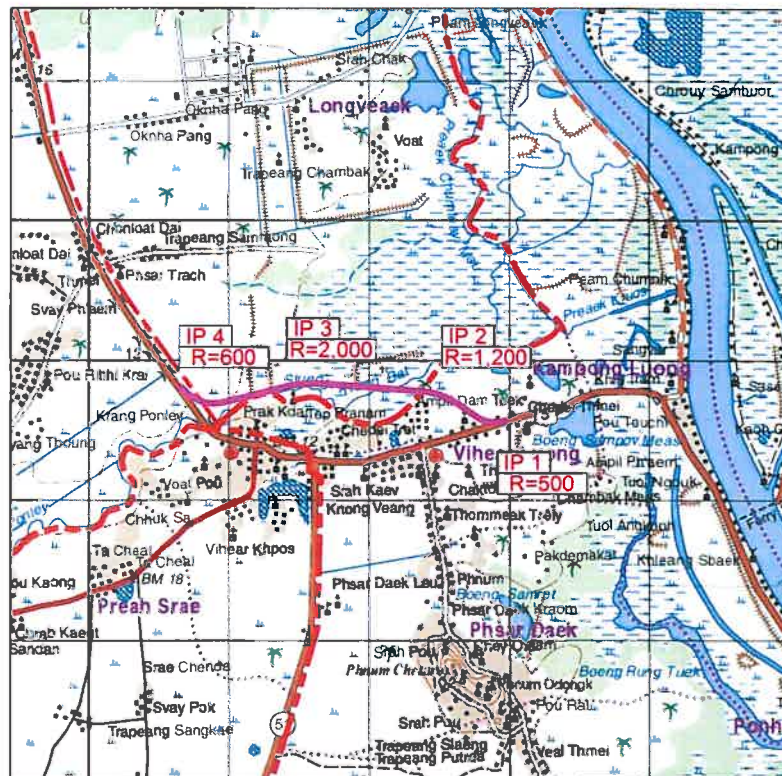


Figure 1-3: Udong Bypass Location Map



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 minorities² 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

² 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 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.

18. 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.

19. 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.

20. 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.”

21. **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

22. 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.

23. 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.

24. **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.

25. **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

26. 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.

27. 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.
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 APs.	Income restoration program (IRP) will be prepared.
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 the <i>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 the <i>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. (the <i>Expropriation Law (Article 22)</i>)	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)
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 Land Law 2001, 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 Expropriation Law; 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

28. 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

29. 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

30. For the project, the cut-off date coincides with the first day of the census of AHs and the IOL thereat was conducted. The cut-off date for the existing NR-5 and KCHN Bypass is on 1st January 2013, and for Udong Bypass is on 11th April 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.

31. 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

32. 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.

33. 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.

34. 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

35. 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 Kampong Chhnang and Udong).	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 ³ for continued use (Landless AHs)	no more remaining land.	<p>1) Self relocation: receive in lump sum \$3,000.00 per landless AH as cash assistance for buying a land plot and preparing other basic infrastructure, 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 • 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.
III. Loss of	All AHs occupying	• No cash compensation is	• AHs to be notified at least <u>90</u>

³ 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.

TYPE OF LOSS	ELIGIBLE PERSONS	ENTITLEMENTS	IMPLEMENTATION ISSUES
Productive Land Use ; Either Partial or Entire Land is Lost	land or using land in the Provisional Road Width (PRW)	<p>available for affected land in ROW.</p> <ul style="list-style-type: none"> See also [C. LOSS OF CROPS AND TREES] 	<p><u>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.</p> <ul style="list-style-type: none"> 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: equivalent to two months' 	<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.

TYPE OF LOSS	ELIGIBLE PERSONS	ENTITLEMENTS	IMPLEMENTATION ISSUES
		<ul style="list-style-type: none"> 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"> 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 [IV. Income Restoration Program (IRP)] 	<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
	<ul style="list-style-type: none"> Relocating AHs to a new village or resettlement site 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> An IRP will be provided during resettlement implementation. 	<ul style="list-style-type: none"> In-kind assistance to strengthen or initiate income-generating activities will be provided after need assessment through consultation with eligible AHs. Forms of assistance may include, but are not limited to, agricultural extension assistance, technical and other assistance to develop existing or new income-generating activities and project-related employment. Special attention to the needs of and opportunities for the vulnerable AHs.
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	<ul style="list-style-type: none"> Repair of damage or payment for repair of damage at replacement cost. 	

Source: JICA Study Team

4 PROJECT IMPACTS

4.1 Methodology Used in Preparing the Resettlement Plan

36. 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 in January-April 2013.

4.1.1 Data Gathering Instrument

37. 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

38. In addition to the Study Team leader (resettlement specialist), a recruited team of 41 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 survey groups. Each IOL 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 and KCHN commenced on 1st January 2013 and was completed on 12th February 2013, while for Udong Bypass it was started from 17th to 26th April 2013. The research team was accompanied by commune or village officials during their data gathering activities.

4.1.3 Setting of the Cut-off Date

39. The IOL and census of AHs were preceded by a series of public consultation meetings in commune centres along NR-5. 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 1st January 2013 for the exiting NR-5 and KCHN Bypass and on 11th April 2013 for Udong Bypass.

4.1.4 Basic Unit Costs Used in the Resettlement Plan

40. In line with the IOL activities, an RCS of affected assets in the Project area was carried out by the research team which was leaded 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 secondary⁵ 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.

41. 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

42. 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.

(b) Unit Costs of Structures

43. 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.

44. 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 24 categories

⁵ This includes fences, wells, pig pens, toilets, kitchens, etc.

were identified in the Project area. The unit prices of a typical structure for each category are provided.

45. 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.

(c) Unit Costs of Crops and Trees

46. 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.

47. 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

48. 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.

49. 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.

4.2 Inventory of Affected Assets

4.2.1 Land

50. 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.**

51. 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.

52. A total of 609,483.50 m² of land will be required for the construction of the two bypasses (KCHN and Udong). Of these, 95.04% (579,255.87 m²) is used for growing rice, 6,478.89 m² is used as orchard land, 4,716.56 m² is flooded land, 296.00 m² is commercial land and 18,736.18 m² is residential land. Table 4-5 shows the affected land area and the number of owners identified as AHs.

Table 4-1: Number of Affected Households who will lose their Private Lands (due to Kampong Chhnang and Udong Bypasses)

Province	District	Rice Field		Orchard		Flooded Area		Commercial		House Plot/ Home Garden	
		AH	m ²	AH	m ²	AH	m ²	AH	m ²	AH	m ²
KCHN	Rolea B'ier	561	422,557.96	1	1,269.00	5	2,040.96	1	296.00	18	7,284.39
	Kampong Tralach	77	110,402.96	1	379.14	0	0	0	0	10	90.00
KDL	Ponhea Leu	29	46,294.95	4	4,830.75	2	2,675.60	-	.	12	11,361.79
Total		667	579,255.87	6	6,478.89	7	4,716.56	1	296.00	40	18,736.18

Data source: Project Survey conducted in January-April 2013

4.2.2 Main Structures

53. A total of 1,079 AHs along NR-5 and the two bypasses, whose main structures (house, house-shop and/or shop/restaurant) will be affected by the Project. Of the 1079 AHs, 1,060 AHs are residing along NR-5, and 19 AHs residing along the two bypasses.

Table 4-2: 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					
			House	House-Shop	Shop/Restaurant	Shelter	Other Structures	Total
NR-5	PST	Krakor	123	71	0	168	82	444

Road section	Province	District	AHs According to Type of Structure					
			House	House-Shop	Shop/Restaurant	Shelter	Other Structures	Total
		Subtotal (PST)	123	71	0	168	82	444
	KCHN	Baribour	201	122	3	171	39	536
		Kampong Tralach	148	116	3	149	84	500
		Rolea B'ier	113	75	0	124	42	354
		Sameakki Mean Chey	41	12	1	33	21	108
		Subtotal (KCHN)	503	325	7	477	186	1,498
	KDL	Ponhea Leu	29	2	0	20	15	66
		Subtotal (KDL)	29	2	0	20	15	66
	Total (NR-5)		655	398	7	665	283	2,008
Bypass	KCHN	Kampong Tralach	1	0	0	0	0	1
		Rolea B'ier	12	1	0	0	2	15
		Subtotal (KCHN)	13	1	0	0	2	16
	KDL	Ponhea Leu	5	0	0	0	0	5
		Subtotal (KDL)	5	0	0	0	0	5
	Total (Bypasses)		18	1	0	0	2	21
Total	PST	Krakor	123	71	0	168	82	444
		Subtotal (PST)	123	71	0	168	82	444
	KCHN	Baribour	201	122	3	171	39	536
		Kampong Tralach	149	116	3	149	84	501
		Rolea B'ier	125	76	0	124	44	369
		Sameakki Mean Chey	41	12	1	33	21	108
		Subtotal (KCHN)	516	326	7	477	188	1,514
	KDL	Ponhea Leu	34	2	0	20	15	71
		Subtotal (KDL)	34	2	0	20	15	71
	Total (the Project)		673	399	7	665	285	2,029

Data source: Project Survey conducted in January-April 2013

Table 4-3: Floor Area (in m²) of Affected Main Structures by Type of Materials

Type of Structure (m ²)	House	House/Shop	Kitchen	Grange/Storage	Shop/Restaurant	Craft / Workshop	Stall / Market stall	Other	Total
1A	54.75	67.80	39.79	0.00	0.00	20.40	0.00	0.00	182.74
1B	86.90	16.00	0.00	0.00	0.00	0.00	0.00	0.00	102.90
1C	211.59	92.50	0.00	0.00	0.00	14.00	0.00	3.60	321.69
1D	0.00	28.80	0.00	0.00	0.00	38.50	116.18	55.50	238.98
2A	278.30	205.34	0.00	0.00	0.00	42.94	140.59	13.50	680.67
2B	245.66	522.15	0.00	0.00	0.00	183.80	826.92	82.29	1,860.82
2C	566.98	385.16	3.00	0.00	0.00	0.00	336.47	35.60	1,327.21
2D	202.05	20.00	0.00	0.00	0.00	0.00	46.75	0.00	268.80
2E	557.91	504.45	30.85	0.00	0.00	52.20	549.79	5.70	1,700.90
2F	97.80	129.16	171.00	0.00	0.00	0.00	155.96	238.00	791.92
2G	2,246.18	2,902.80	24.45	14.25	24.80	1,498.06	5,414.34	1,041.31	13,166.19

Type of Structure (m ²)	House	House/ Shop	Kitchen	Grange/ Storage	Shop/ Restaurant	Craft / Workshop	Stall / Market stall	Other	Total
2H	339.08	147.83	0.00	0.00	0.00	26.40	336.93	17.60	867.84
2I	5,377.89	3,146.84	43.90	77.90	0.00	455.62	4,738.15	426.45	14,266.75
2J	3,286.94	2,358.05	85.18	55.06	122.00	1,150.36	2,881.06	1,245.35	11,184.00
2K	73.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73.06
2L	739.96	520.98	0.00	0.00	0.00	0.00	0.00	0.00	1,260.94
3B	928.43	0.00	16.00	0.00	73.80	31.39	0.00	7.20	1,056.82
3C	87.70	253.22	0.00	0.00	0.00	87.50	89.70	0.00	518.12
3D	1,140.08	230.35	0.00	0.00	0.00	0.00	0.00	0.00	1,370.43
4A	864.45	661.83	0.00	0.00	0.00	0.00	0.00	0.00	1,526.28
4B	881.13	737.71	0.00	0.00	0.00	0.00	0.00	0.00	1,618.84
4C	100.29	48.28	0.00	0.00	0.00	0.00	0.00	0.00	148.57
S1	0.00	0.00	0.00	0.00	0.00	255.84	255.42	408.45	919.71
S2	0.00	0.00	77.20	80.00	223.01	3,759.42	2,064.16	17,981.82	24,185.61
S3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	370.64	373.64

Data source: Project Survey conducted in January-April 2013

Table 4-4: Other Structures, including Public Assets

Items	Unit	Total
Concrete Well	set	228
Pump Well	set	74
Mortar	m ²	11,838
Vehicle washing place	set	6
Toilet	set	53
Culvert	m	261
FENCE		
Timber post with wire	lm	3,007
Concrete post with wire	lm	2,349
Brick Wall, 100mm	lm	3,227
Brick Wall, 200mm	lm	1,606
PETROL STATION		
Petrol Measure	set	26
Fuel Tank (10,000L)	set	4
Fuel Tank (20,000L)	set	7
Fuel Tank (30,000L)	set	5
GRAVE/STUPA/CHEDEY		
Concrete grave	set	7
Chedey/Stupa (7.0m x 4.0m x 4.0m)	set	1
GATEWAY		
Pagoda gate (3.8m x 7.8m)	set	9
Gate of public service office (Normal) ⁷	set	19

Data source: Project Survey conducted in January-April 2013

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

4.2.3 Affected Crops and Trees

54. 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 14,326 fruit and timber trees with various species and ages along the existing NR-5 south part and the two bypasses at Udong and KCHN have been counted during the IOL. Of 14,326 fruit and timber trees, except some trees along KCHN Bypass, are not commercially grown, meaning they are sporadically planted inside the ROW.

Table 4-5: Affected Trees

No.	Type of Tree	Unit	Number
1	Bamboo	Thicket	228
2	Banana	Tree	494
3	Coconut	Tree	1,996
4	Tamarind	Tree	73
5	Chan Kiri	Tree	43
6	Sapodilla	Tree	10
7	Kantuot	Tree	35
8	Kamping Reach	Tree	24
9	Khvet	Tree	4
10	Jack Fruit	Tree	331
11	Krasang	Tree	32
12	Korki	Tree	10
13	Pring	Tree	74
14	Jujube	Tree	34
15	Mkak	Tree	22
16	Longan	Tree	64
17	Sdau	Tree	29
18	Orange	Tree	12
19	Grapefruit	Tree	22
20	Custard apple	Tree	59
21	Sour sop	Tree	10
22	Guava	Tree	86
23	Teuk Dos Kou	Tree	312
24	Acacia/Eucalyptus	Tree	498
25	Lemon	Tree	34
26	Mango	Tree	7,235
27	Papaya	Tree	22
28	Sugar Palm	Tree	1,211
29	Cashew	Tree	684
30	Other	Tree	638

Data source: Project Survey conducted in January-April 2013

4.3 Impact on Vulnerable Households

55. 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 640 AHs with a total of 818 vulnerability factors (see Table 2.4). The additional special cash assistance for vulnerable AHs is \$100.00 per vulnerable AH.

Table 4-6: Vulnerable Factors and Vulnerable AHs (VAHs)

Province	District	Aged ≥60 Yrs	Widow	Disabled	Landless	Poor	VAHs
PST	Krakor	63	43	2	19	3	105
	Sub-total (PST)	63	43	2	19	3	105
KCHN	Baribour	75	58	6	27	4	128
	Rolea B'ier	129	101	7	26	25	219
	Kampong Tralach	63	54	3	30	3	128
	Samekki Mean Chey	18	4	1	7	1	26
	Sub-total (KCHN)	285	217	17	90	33	501
KDL	Ponhea Leu	25	18	0	2	1	34
	Sub-total (KDL)	25	18	0	2	1	34
TOTAL (Project)		373	278	19	111	37	640
		818 factors					640 AHs

Data source: Project Survey conducted in January – April 2013.

5 SOCIO-ECONOMIC PROFILE OF THE AFFECTED HOUSEHOLDS

56. 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 2,111 AHs along the existing NR-5 and the bypasses have been interviewed. The number of AHs interviewed represented 62.68% of all AHs (3,368 AHs).

57. 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

58. The total number of studied households is 2,111, which is composed of a population of 10,184. The population is comprised of 5,284 (51.9%) females and 4,900 (48.1%) 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 92.7.

Table 5-1: Population and Household Composition

Stratum	Number of Households	Average HH Size	Population					Sex Ratio*
			Both	Male		Female		
				No.	%	No.	%	
Project Survey	2,111	4.8	10,184	4,900	48.1	5,284	51.9	92.7
PST	395	5.2	2,067	979	47.4	1,088	52.6	90.0
KCHN	1,637	4.7	7,698	3,713	48.2	3,985	51.8	93.2
KDL	79	5.3	419	208	49.6	211	50.4	98.6

Data source: Project Survey conducted in January – April 2013.

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

5.2 Age structure and Dependency

59. 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 35.1% 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	4,900	584	11.9	689	14.1	511	10.4	2,848	58.1	268	5.5
	F	5,284	530	10.0	729	13.8	543	10.3	3,050	57.7	432	8.2
	T	10,184	1,114	10.9	1,418	13.9	1,054	10.3	5,898	57.9	700	6.9
PST	M	979	105	10.7	149	15.2	98	10.0	583	59.6	44	4.5
	F	1,088	111	10.2	155	14.2	124	11.4	619	56.9	79	7.3
	T	2,067	216	10.4	304	14.7	222	10.7	1,202	58.2	123	6.0
KCHN	M	3,713	458	12.3	517	13.9	391	10.5	2,143	57.7	204	5.5
	F	3,985	402	10.1	543	13.6	394	9.9	2,313	58.0	333	8.4
	T	7,698	860	11.2	1,060	13.8	785	10.2	4,456	57.9	537	7.0
KDL	M	208	21	10.1	23	11.1	22	10.6	122	58.7	20	9.6
	F	211	17	8.1	31	14.7	25	11.8	118	55.9	20	9.5
	T	419	38	9.1	54	12.9	47	11.2	240	57.3	40	9.5

Data source: Project Survey conducted in January – April 2013.

60. 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.

61. The age composition in table 5-3 shows that 68.5% of the population was aged between 15-64 years. 26.6% was below 15 years and 4.9% was 65 years and over. The table also provided detail about youth dependency ratio (38.8%) and old age dependency ratio (7.2%). The total dependency ratio is 46.0%. This means there were 46.0 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.

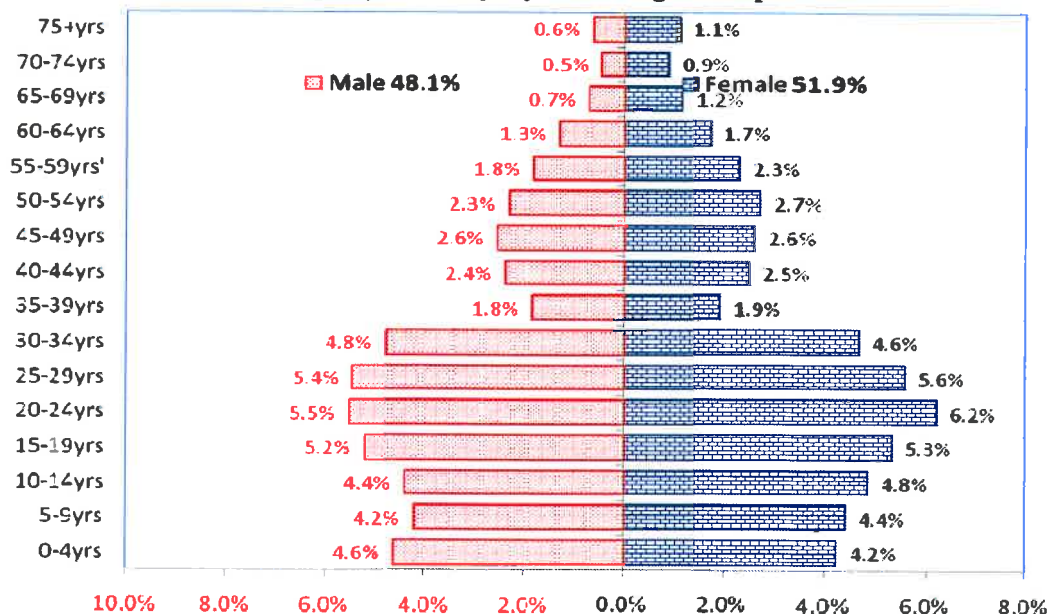
Table 5-3: Age Composition and Dependency Ratio

Stratum	Population		Below 15		15-64		65+		Dependency Ratio		
			No.	%	No.	%	No.	%	Youth	Old Age	Total
Project Survey	M	4,900	1,348	27.5	3,369	68.8	183	3.7	38.8%	7.2%	46.0%
	F	5,284	1,360	25.7	3,606	68.2	318	6.0			
	T	10,184	2,708	26.6	6,975	68.5	501	4.9			
PST	M	979	269	27.5	680	69.5	30	3.1	40.2%	6.0%	46.2%
	F	1,088	299	27.5	734	67.5	55	5.1			
	T	2,067	568	27.5	1,414	68.4	85	4.1			
KCHN	M	3,713	1,032	27.8	2,539	68.4	142	3.8	38.7%	7.5%	46.2%
	F	3,985	1,007	25.3	2,727	68.4	251	6.3			
	T	7,698	2,039	26.5	5,266	68.4	393	5.1			
KDL	M	208	47	22.6	150	72.1	11	5.3	34.2%	7.8%	42.0%
	F	211	54	25.6	145	68.7	12	5.7			
	T	419	101	24.1	295	70.4	23	5.5			

Data source: Project Survey conducted in January – April 2013.

62. 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 and 25-29 age group (11.7% and 11.0% respectively) and a corresponding bulge in the 10-19 year old age group (19.7% of the population), while the youngest two age groups, 5-9 year old, have only 8.6%. 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 in January – April 2013.

5.3 Marital Status

63. 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, 36.1% they are never married, 54.8% were currently married, 7.0% were widowed and 2.1% 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	7,476	2,699	36.1	4,095	54.8	159	2.1	523	7.0
15 – 19 yrs	1,066	1,045	98.0	19	1.8	1	0.1	1	0.1
20 – 24 yrs	1,191	893	75.0	286	24.0	8	0.7	4	0.3
25 – 29 yrs	1,120	495	44.2	585	52.2	28	2.5	12	1.1
30 – 34 yrs	957	160	16.7	757	79.1	29	3.0	11	1.1
35 – 39 yrs	381	29	7.6	325	85.3	14	3.7	13	3.4
40 – 44 yrs	497	13	2.6	451	90.7	13	2.6	20	4.0
45 – 49 yrs	526	16	3.0	471	89.5	16	3.0	23	4.4
50 – 54 yrs	513	13	2.5	418	81.5	20	3.9	62	12.1
55 – 59 yrs	419	18	4.3	327	78.0	15	3.6	59	14.1
60 – 64 yrs	305	4	1.3	210	68.9	7	2.3	84	27.5
65 – 69 yrs	191	7	3.7	116	60.7	4	2.1	64	33.5
70 – 74 yrs	136	3	2.2	60	44.1	3	2.2	70	51.5
75+ yrs	174	3	1.7	70	40.2	1	0.6	100	57.5

Data source: Project Survey conducted in January – April 2013.

5.4 Ethnic Group and Religion

64. 92.1% of affected household heads are Khmer and Khmer speaking, while 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		Other	
		No.	%	No.	%	No.	%
Project	2,111	1,945	92.1	148	7.0	18	0.9
PST	395	385	97.5	9	2.3	1	0.2
KCHN	1,637	1,493	91.2	127	7.8	17	1.0
KDL	79	67	84.8	12	15.2	0	0.0

Data source: Project Survey conducted in January – April 2013.

65. 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 only 92.8 % is Buddhism, 7.0 % is Muslim and Christian is 0.1 %.

Table 5-6: Religion of Household Heads

Stratum	No. H/H	Mother tongue and Ethnic Group					
		Buddhism		Muslim		Christian	
		No.	%	No.	%	No.	%
Project	2,111	1,960	92.8	148	7.0	3	0.1
PST	395	386	97.7	9	2.3	0	0.0
KCHN	1,637	1,507	92.1	127	7.8	3	0.2
KDL	79	67	84.8	12	15.2	0	0.0

Data source: Project Survey conducted in January – April 2013.

5.5 Vulnerable Groups

66. 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 13.2 % 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 labor. 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.

67. Based on the survey results, an average percentage of each vulnerable factor in three different areas (PST, KCHN, and KDL) of disabled household head, aged⁸ household head, household living below poverty line (<20\$/capita/month) and landless household is 0.9%, 17.7 %, 1.8%, and 5.3% 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	2,111	373	17.7	278	13.2	19	0.9	111	5.3	37	1.8
PST	395	63	15.9	43	10.9	2	0.5	19	4.8	3	0.8
KCHN	1,637	285	17.4	217	13.3	17	1.0	90	5.5	33	2.0
KDL	79	25	31.6	18	22.8	0	0.0	2	2.5	1	1.3

* "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 in January – April 2013.

5.6 Literacy

5.6.1 Literacy of the Affected Households' Heads and Spouses

68. The male household head literacy rates are 96.4% and female spouse literacy rates are 88.9%. There is a small gap between the literacy rates of male household heads and their spouses. Among 526 female household heads, there are only 389 (74.0%) of them are literacy. Women, in general, receive less education than men, especially for widows. The survey results show that female HH are, 22% or more, less literate than male HH. Therefore, women enter the labor 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	1,585	1,528	96.4	526	389	74.0	1,521	1,352	88.9
PST	329	318	96.7	66	52	78.8	322	288	89.4
KCHN	1,200	1,155	96.3	437	322	73.7	1,147	1,014	88.4
KDL	56	55	98.2	23	15	65.2	52	50	96.2

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

Data source: Project Survey conducted in January – April 2013

5.6.2 Adult Literacy (age from 18 years and over)

69. Adult literacy rate is the percentage of the population aged 18 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 91.2% which is considerably high and the single literacy rate of male and female 96.1% and 86.7% respectively.

Table 5-9: Adult Literacy (age from 18 years and over)

Stratum	Both Sex			Male			Female		
	Pop.	Yes	%	Pop.	Yes	%	Pop.	Yes	%
Project Survey	7,476	6,817	91.2	3,552	3,413	96.1	3,924	3,404	86.7
PST	1,499	1,390	92.7	710	689	97.0	789	701	88.8
KCHN	5,659	5,133	90.7	2,681	2,569	95.8	2,978	2,564	86.1
KDL	318	294	92.5	161	155	96.3	157	139	88.5

Data source: Project Survey conducted in January – April 2013

5.7 Educational Attainment of the Population

70. 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	11.0	24.2	23.3	19.2	12.7	9.6
	Female	17.6	30.2	23.8	15.7	7.7	5.0
	Both	14.5	27.3	23.6	17.4	10.1	7.2
PST	Male	10.2	22.0	23.9	19.2	14.1	10.7
	Female	16.2	29.4	23.6	16.5	9.7	4.6
	Both	13.3	25.9	23.7	17.8	11.8	7.5
KCHN	Male	11.4	24.9	23.4	19.4	11.9	9.1
	Female	17.9	30.3	24.0	15.4	7.3	5.1
	Both	14.8	27.7	23.7	17.3	9.5	7.0
KDL	Male	8.4	21.6	20.5	15.8	18.9	14.7
	Female	19.0	33.5	21.5	17.0	4.5	4.5
	Both	13.8	27.7	21.0	16.4	11.5	9.5

Data source: Project Survey conducted in January – April 2013

71. In the Project area, 14.5% 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 17.6 % for females and 11.0% for males. Around 23.6% of education attainment for both male and female has at least completed primary education. As shown in Table 5-10, there are only 17.4 % who have completed lower secondary schooling, and 7.2% who have attended post-secondary education. The gap between sexes increases for higher level of education nearly double, i.e. 9.6% of males have post-secondary education, compared to females, which is only 5.0%.

5.8 Current School Attendance

72. 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 95.3%, while lower secondary school is 96.1%. 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.

73. 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 labor. 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 96% of pupils have attended secondary school, while about 4% of the pupils have dropped out secondary school to help their families in earning income.

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	485	463	95.5	279	268	96.1
	Female	501	477	95.2	329	316	96.0
	Both	986	940	95.3	608	584	96.1
PST	Male	105	103	98.1	59	58	98.3
	Female	105	101	96.2	83	81	97.6
	Both	210	204	97.1	142	139	97.9
KCHN	Male	365	347	95.1	209	199	95.2
	Female	375	357	95.2	230	220	95.7
	Both	740	704	95.1	439	419	95.4
KDL	Male	15	13	86.7	11	11	100.0
	Female	21	19	90.5	16	15	93.8
	Both	36	32	88.9	27	26	96.3

Data source: Project Survey conducted in January – April 2013

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

74. About 28.4% of household heads are working on farms, while non-farming is 66.8% (Other rests 4.8% are aged or disable or unable to work.). Table 5-12 shows that the percentage of household heads working on farms is highest in KCHN with 30.1%, at locations where the bypass mostly traverses through rice fields and orchard land. A sizeable number of male and female household heads surveyed (356 persons or 29.7% and 137 persons or 31.4%, respectively) are engaged in farming.

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

Stratum	Number of Households		Non-farming		Farming	
			No.	%	No.	%
Project Survey	Male	1,585	1,081	68.2	446	28.1
	Female	526	330	62.7	153	29.1
	Total	2,111	1,411	66.8	599	28.4
PST	Male	329	245	74.5	75	22.8
	Female	66	49	74.2	14	21.2
	Total	395	294	74.4	89	22.5
KCHN	Male	1,200	799	66.6	356	29.7
	Female	437	265	60.6	137	31.4
	Total	1,637	1,064	65.0	493	30.1
KDL	Male	56	37	66.1	15	26.8
	Female	23	16	69.6	2	8.7
	Total	79	53	67.1	17	21.5

Data source: Project Survey conducted in January – April 2013

5.10 Fishing Community

75. Among 130 AHs interviewed, there are only 17 AHs (13.1%) are in fishing as part of their income. 12 AHs of the 17 AHs (70.6%) of the fishing family, only fish just for their leisure or eating, while 5 AHs (29.4%) get income from fishing.

Table 5-13: Fishing Activities around Udong town

Stratum	Number of HH	Fishing		Leisure/ Eating		Selling/Money	
		Yes	%	Yes	%	Yes	%
Project Survey	130	17	13.1	12	70.6	5	29.4
Kampong Tralach (KCHN)	51	5	9.8	5	100.0	0	0.0
Ponhea Leu (KDL)	79	12	15.2	7	58.3	5	41.7

Data source: Project Survey conducted in January – April 2013

76. Based on the socio-economic survey, the main source of fishing for the 17 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	17	4	23.5	5	29.4	8	47.1
Kampong Tralach (KCHN)	5	0	0.0	2	40.0	3	60.0
Ponhea Leu (KDL)	12	4	33.3	3	25.0	5	41.7

Data source: Project Survey conducted in January – April 2013

77. Of the 17 fishing families, 76.5% do fishing only in rainy season, 11.8% do fishing only in dry season and 11.8% do fishing for the whole year. Among the 17 fishing families, there are only two families, in Ponhea Leu district, 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	17	2	11.8	13	76.5	2	11.8
Kampong Tralach (KCHN)	5	0	0.0	5	100.0	0	0.0
Ponhea Leu (KDL)	12	2	16.7	8	66.7	2	16.7

Data source: Project Survey conducted in January – April 2013

5.11 Main Sources of Income of Affected Households

78. According to the survey, the main sources of income of the AHs include 72.8% business/trade followed by 63.8% from agricultural sector (agricultural production, livestock and fishing), and 57.9% depend on wages/salary. Remittance of 8.9% 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		PST		KCHN		KDL	
Number of Households	2,111		395		1,637		79	
Item	No.	%	No.	%	No.	%	No.	%
Wages/salary	1,209	57.3	243	61.5	907	55.4	59	74.7
Farming hired labor	12	0.6	1	0.3	9	0.5	2	2.5
Business/trade	1,537	72.8	328	83.0	1,153	70.4	56	70.9
Agricultural production	990	46.9	168	42.5	789	48.2	33	41.8
Livestock	330	15.6	87	22.0	230	14.1	13	16.5
Fishing	28	1.3	3	0.8	24	1.5	4	5.1
Equipment making	116	5.5	4	1.0	110	6.7	2	2.5
Equipment rental	7	0.3	1	0.3	6	0.4	0	0.0
Transportation	86	4.1	15	3.8	69	4.2	2	2.5
House/land rental	85	4.0	13	3.3	71	4.3	1	1.3
Remittance	176	8.3	28	7.1	141	8.6	7	8.9
Other	155	7.3	40	10.1	109	6.7	6	7.6

Data source: Project Survey conducted in January – April 2013

5.12 Affected Households Income

79. 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.

80. A significant number (75.3%) of male household heads reported that they are earning an annual income higher than USD 3,000 (among them, 46.6% earning more than USD 5,000 a

year), while 15.1% reported an annual income between USD 2,000 and USD 3,000. Only 0.3% 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	5	0.3	13	0.8	135	8.5	240	15.1	236	14.9	218	13.8	738	46.6	1,585	100.00
PST	0	0.0	2	0.6	15	4.6	36	10.9	33	10.0	40	12.2	203	61.7	329	100.00
KCHN	5	0.4	11	0.9	118	9.8	198	16.5	198	16.5	170	14.2	500	41.7	1,200	100.00
KDL	0	0.0	0	0.0	2	3.6	6	10.7	5	8.9	8	14.3	35	62.5	56	100.00

Data source: Project Survey conducted in January – April 2013

81. Likewise, a significant number (51.5%) of female household heads reported that they are earning an annual income higher than USD 3,000 (among them, 26.2% earning more than USD 5,000 a year), while 20.2% reported an annual income between USD 2,000 and USD 2,500. It is noted that all female household heads in KDL province earn income higher than USD 1,000 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	13	2.5	26	4.9	110	20.9	106	20.2	72	13.7	61	11.6	138	26.2	526	100.00
PST	1	1.5	5	7.6	8	12.1	13	19.7	11	16.7	9	13.6	19	28.8	66	100.00
KCHN	12	2.7	21	4.8	101	23.1	91	20.8	55	12.6	47	10.8	110	25.2	437	100.00
KDL	0	0.0	0	0.0	1	4.3	2	8.7	6	26.1	5	21.7	9	39.1	23	100.00

Data source: Project Survey conducted in January – April 2013

82. Table 5-19 shows the sources of cash income of all 2,111 households interviewed. It reveals that the average monthly income of household and capita is USD 525.00 and USD 105.00, respectively. Of all interviewed households in the Project area, there are 59.22% has their main income from business/trade, 24.43% has their second main income from wages or salary and 5.58% has their third main income from agricultural sector (i.e. agricultural production, livestock and fishing).

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

Items	Annual Income			
	No. HH	USD	%	Average
Wages/salary	1,209	3,234,089.83	24.32	2,675.01
Farming hired labor	12	14,609.75	0.11	1,217.48
Business/trade	1,537	7,875,813.13	59.22	5,124.15
Agricultural production	990	361,889.82	2.72	365.55
Livestock	330	336,523.13	2.53	1,019.77
Fishing	31	43,501.25	0.33	1,403.27
Equipment making	116	220,277.25	1.66	1,898.94
Equipment rental	7	12,015.50	0.09	1,716.50
Transportation	86	300,420.63	2.26	3,493.26

Items	Annual Income			
	No. HH	USD	%	Average
House/land rental	85	163,518.15	1.23	1,923.74
Remittance	176	238,639.23	1.79	1,355.90
Other	155	497,976.73	3.74	3,212.75
Total		13,299,274.37	100.00	
Currency in USD	Annual		Monthly	
Number of Interviewed AHs = 2,111				
Household income**	6,299.99		525.00	
Capita income***	1,260.00		105.00	

* Each household gets income from more than one source

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

*** A HH has 5 persons in average. (Capita income=Household income / 5)

Data source: Project Survey conducted in January – April 2013

5.13 Credit

83. 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 41.6% (878 AHs) of the 2,111 AHs have received credit from different agencies. The credit sources of the 878 AHs include 50.7% from private bank institutions, 25.9% from NGOs, 4.7% from credit providers, 14.6% from relatives, 2.5% from landlords/traders, and the rest of 1.7% 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	2,111	878	41.6	445	50.7	227	25.9	22	2.5	41	4.7	128	14.6	15	1.7
PST	395	214	54.2	110	51.4	59	27.6	9	4.2	8	3.7	21	9.8	7	3.3
KCHN	1,637	628	38.4	317	19.4	161	9.8	11	0.7	26	1.6	105	6.4	8	0.5
KDL	79	36	45.6	18	50.0	7	19.4	2	5.6	7	19.4	2	5.6	0	0.0

Data source: Project Survey conducted in January – April 2013

84. 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 (73.5%) get loans for expanding their businesses follows by 16.5% for supporting family members 15% for house repairing/building and 11.8% for health care.

Table 5-21: Purposes of Acquiring the Credit

Items	Project		PST		KCHN		KDL	
	No.	%	No.	%	No.	%	No.	%
Number of HHs	878		214		628		36	
Food consumption	72	8.2	8	3.7	56	8.9	8	22.2
Health care	104	11.8	21	9.8	77	12.3	6	16.7
Schooling costs	63	7.2	16	7.5	42	6.7	5	13.9
Building/repairing house	132	15.0	29	13.6	98	15.6	5	13.9
Ceremony/wedding	12	1.4	2	0.9	9	1.4	1	2.8

Farming	58	6.6	10	4.7	46	7.3	2	5.6
Business expanding	645	73.5	168	78.5	447	71.2	30	83.3
Supporting family members	145	16.5	15	7.0	128	20.4	2	5.6
Others	18	2.1	4	1.9	14	2.2	0	0.0

Data source: Project Survey conducted in January – April 2013

5.14 Sanitation

5.14.1 Water Sources for Drinking and Cooking

85. Of the interviewed households in the Project area, only 4.6% use pipe water from waterworks and 58.1% from protected wells. Moreover, 29.3% buy clean water during the dry season for their daily consumption. Approximately, 7.4% use rainwater during the wet season, while 10.8% use water from unprotected wells. Lake/pond was the source of drinking water for only 0.6% (or 13 AHs) of the 2,111 AHs surveyed, while 0.2% still use 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	2,111	4	0.2	13	0.6	1,227	58.1	229	10.8	156	7.4	618	29.3	97	4.6
PST	395	1	0.3	3	0.8	127	32.2	95	24.1	48	12.2	111	28.1	51	12.9
KCHN	1,637	3	0.2	3	0.2	1,095	66.9	134	8.2	94	5.7	443	27.1	45	2.7
KDL	79	0	0.0	7	8.9	5	6.3	0	0.0	14	17.7	64	81.0	1	1.3

Data source: Project Survey conducted in January – April 2013

86. 73.0% 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. In addition, 6.8% of the interviewed households sometimes boil water before drinking, while 20.1% 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	2,111	1,542	73.0	144	6.8	425	20.1
PST	395	277	70.1	42	10.6	76	19.2
KCHN	1,637	1,205	73.6	93	5.7	339	20.7
KDL	79	60	75.9	9	11.4	10	12.7

Data source: Project Survey conducted in January – April 2013

87. Approximately 19.0% of interviewed households have to buy water for washing/bathing during the dry season. Wells and rainwater (78.9%) are the most common water sources for the local people 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	2,111	6	0.3	15	0.7	1,371	64.9	246	11.7	48	2.3	402	19.0	96	4.5

PST	395	3	0.8	6	1.5	153	38.7	105	26.6	3	0.8	79	20.0	55	13.9
KCHN	1,637	3	0.2	1	0.1	1,210	73.9	140	8.6	30	1.8	263	16.1	40	2.4
KDL	79	0	0.0	8	10.1	8	10.1	1	1.3	15	19.0	60	75.9	1	1.3

Data source: Project Survey conducted in January – April 2013

5.14.2 Toilet

88. In the Project area, 73.2% of the interviewed households have own latrine, while 26.8% do not have access to toilet facilities as they depend on “open defecation” or sharing toilets with their neighbours. In particular, 84.8% of respondents in Ponhea Leu District/KDL and 66.1% of AHs in Rolea B’ier District/ KCHN have their own toilet.

5.15 Energy Sources for Lighting and Cooking

89. 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, about 16% of the surveyed AHs claimed that they use rechargeable stationary batteries for lighting. Moreover, 77.5% use publicly provided electricity (state and private company) as their source, while 6.9% use kerosene lamp. About 0.5% 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	2,111	37	1.8	1,597	75.7	339	16.1	146	6.9
PST	395	10	2.5	304	77.0	73	18.5	11	2.8
KCHN	1,637	27	1.6	1,217	74.3	264	16.1	135	8.2
KDL	79	0	0.0	76	96.2	2	2.5	0	0.0

Data source: Project Survey conducted in January – April 2013

90. Based on the survey results, 25.4% of interviewed households use liquefied petroleum gas as their source for cooking, while 70.1% and 36.4% use firewood and charcoal, respectively. Only 3.6% 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	2,111	1,480	70.1	77	3.6	769	36.4	537	25.4
PST	395	257	65.1	8	2.0	148	37.5	82	20.8
KCHN	1,637	1,179	72.0	55	3.4	592	36.2	417	25.5
KDL	79	44	55.7	14	17.7	29	36.7	38	48.1

Data source: Project Survey conducted in January – April 2013

5.16 Transportation

91. 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 65.7% of interviewed households have bicycles and 75.6% have motorbikes. Only a small amount of households have trucks, at about 3.3%, and 10.8% have a car/pickup/minivan. It was estimated that the average value of transport equipment in the Project area is around USD 2,214 per household.

Table 5-27: Transport Equipment and Its Values

Mode of Transport	Total Value (KHR)	Total AHs = 2,111	
		# Having	%
Bicycle	130,064,000	1,387	65.7
Motorbike	6,148,180,000	1,595	75.6
Car/pickup/minivan	9,682,800,000	228	10.8
Truck	2,684,700,000	69	3.3
Boat without engine	21,470,000	19	0.9
Boat with engine	30,550,000	6	0.3
Grand Total	18,697,764,000 (KHR)		
Average/Household	8,857,302 (KHR)	2,214 (USD)	

Exchange rate: USD 1 = KHR 4,000

Data source: Project Survey conducted in January – April 2013

5.17 Household Appliances

92. Telephones are the most common household appliance among the AHs interviewed, with 1,926 households (91.2%) reporting that they own at least one up to more than five per household. The second most common appliance is TV/VCR/VCP (76.0%). Table 5-28 shows the percentage of households owning other types of electrical appliances, such as 24.6% owning radio/cassette players, and 13.7% owning sewing machines. A small proportion of households own equipment for convenience such as generators at 9.7%, washing machines and air conditioners at 1.9%, and refrigerators 4.7%. It was estimated that the average value of other assets in the target area is around USD 196.70 per household.

Table 5-28: Household Appliances and Its Values

Stratum	Total Value (KHR)	Total Households = 2,111	
		#Having	%
Radio/cassette player	31,073,500	519	24.6
TV/VCR/VCP	486,372,000	1,605	76.0
Sewing machine	121,956,000	290	13.7
Air conditioner	61,920,000	40	1.9
Washing machine	25,360,000	41	1.9
Refrigerator	90,340,000	100	4.7
Telephone	594,326,000	1,926	91.2
Generator	249,500,000	205	9.7
Grand Total	1,660,847,500 (KHR)		
Average/Household	786,759 (KHR)	196.70 (USD)	

Exchange rate: USD 1 = KHR 4,000

Data source: Project Survey conducted in January – April 2013

5.18 Housing Characteristic

5.18.1 Dwelling Space by Household

93. There are 2,111 dwellings in the sample. Average floor area of dwellings is 57.9 square meters (sqm) per household or 12.1 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	2,111	122,315.4	57.9	170	8.1	916	43.4	791	37.5	208	9.9
PST	395	23,483.9	59.5	28	7.1	172	43.5	144	36.5	47	11.9
KCHN	1,637	93,347	231	139	8.5	714	43.6	614	37.5	150	9.2
KDL	79	5,484.7	69.4	3	3.8	30	38.0	33	41.8	11	13.9

Data source: Project Survey conducted in January – April 2013

5.18.2 Building Material

94. 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	59	2.8	254	12.0	-	-
Tin / Fibro/ Plastic Sheet	1,397	66.2	233	11.0	-	-
Wood	-	-	1,136	53.8	997	47.2
Bamboo	-	-	-	-	43	2.0
Roofing Tile	549	26.0	-	-	-	-
Floor Tile	-	-	-	-	458	21.7
Mortar	-	-	-	-	501	23.7
Concrete	80	3.8	-	-	-	-
Earth	-	-	-	-	86	4.1
Brick	-	-	462	21.9	-	-

Data source: Project Survey conducted in January – April 2013

5.19 People's Perception of the Project

5.19.1 Satisfaction with the Project

95. AHs showed satisfaction with the Project since it was reported that 12.7% rated the Project as 'very good', and 49.6% rated it as 'good'. However, about 34.4% of the total households rated the Project as 'good and bad'.

Table 5-31: Satisfaction with the Project

Items	Project		PST		KCHN		KDL	
	No.	%	No.	%	No.	%		
No answer	5	0.2	1	0.3	4	0.2	-	-
Bad	64	3.0	10	2.5	47	2.9	7	8.86
Good and bad	726	34.4	90	22.8	619	37.8	17	21.52
Good	1,048	49.6	240	60.8	764	46.7	44	55.70
Very good	268	12.7	54	13.7	203	12.4	11	13.92
Total	2,111	100.0	395	100.0	1,637	100.0	79	100.00

“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 in January – April 2013

5.19.2 Benefits of the Project

96. In the area of improvements, interviews revealed that around 75.2% of AHs believed that the Project will help decrease congestion/accident when travelling, while 52.2% mentioned it will improve access to other facilities. About 43.8% 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	924	43.8	430	46.5	318	34.4	176	19.0
Appreciation of land prices	159	7.5	15	9.4	60	37.7	84	52.8
Reduced daily expenditures	195	9.2	8	4.1	35	17.9	152	77.9
Decrease of congestion/accidents	1,588	75.2	911	57.4	498	31.4	179	11.3
Improve access to other facilities	1,102	52.2	245	22.2	493	44.7	364	33.0
Flood prevention	35	1.7	9	25.7	13	37.1	13	37.1
Improve travel of tourists	546	25.9	107	19.6	207	37.9	232	42.5
Improve environment	399	18.9	64	16.0	128	32.1	207	51.9
Big push to outskirts area	582	27.6	160	27.5	123	21.1	299	51.4
Attract more investment	192	9.1	35	18.2	74	38.5	83	43.2
Create more direct/indirect jobs	276	13.1	46	16.7	87	31.5	143	51.8
Improve local product marketing	34	1.6	5	14.7	4	11.8	25	73.5

Data source: Project Survey conducted in January – April 2013

5.19.3 Perception of Affected Households with Regards to Relocation

97. In terms of the perception of AHs concerning relocation due to the Project, 90.8% of interviewed households said that they agree to move from the PRW but will need some assistance from the Project. Meanwhile, 6.8% replied that they will voluntarily move without any compensation or assistance. About 2.1% did not answer. However, 0.3% 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	2,111	22	1.0	6	0.3	1,957	92.7	126	6.0
PST	395	3	0.8	1	0.3	332	84.1	59	14.9
KCHN	1,637	19	1.2	5	0.3	1,549	94.6	64	3.9
KDL	79	0	0.0	0	0.0	76	96.2	3	3.8

Data source: Project Survey conducted in January – April 2013

6 ORGANIZATIONAL FRAMEWORK

98. 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)

99. 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;
- (iii) Secure the database of AHs and assets that will be gathered during the preparation and updating of the RAP;
- (iv) Prepare progress reports on RAP implementation for submission to MPWT, PMU and JICA.

6.2 The Inter-ministerial Resettlement Committee (IRC) & the Resettlement Department (RD)

100. IRC is a collegial body headed by the representative from MEF and composed of representatives from concerned line ministries, such as the Ministry of Interior, MPWT, MLMUPC; MEF and MAFF. Created by the Prime Minister through *Decision No.13, dated 18 March 1997*, in connection with the resettlement of AHs in the Highway 1 Project (Loan 1659-CAM), IRC has since been involved in other foreign-assisted government infrastructure projects with involuntary resettlement. IRC will be established on ad hoc basis for each project upon the request from Executing Agency. RD is a secretariat of IRC and will work closely with other relevant institutions to deal with all resettlement issues caused by the project. The IRC will be established for NR-5 project.

101. The institutional setup for resettlement and land acquisition is indicated in Figure 6-1.

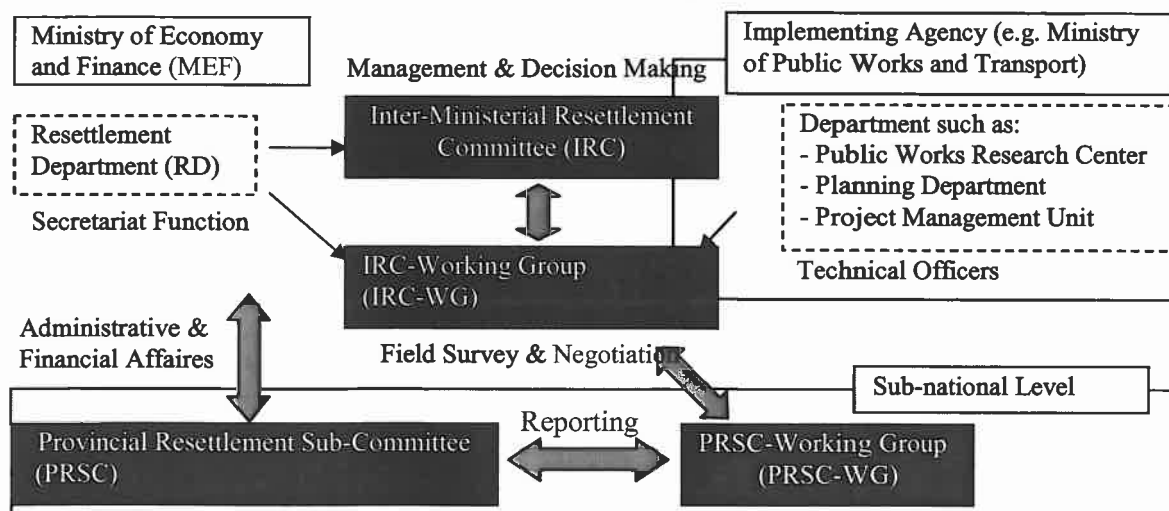


Figure 6-1: Inter-Ministerial Resettlement Committee (IRC) and relevant organizations

102. IRC will assume the function of a quasi-regulatory body, ensuring that funds for resettlement are spent properly and that the RAP is carried out as intended. The technical arm of IRC is its RD.

103. The RD will assist IRC in the following tasks:

- (i) Reviewing and approving the RAP, ensuring its consistency with JICA Guidelines and, later, the loan agreement;
- (ii) Submitting the approved RAP to JICA;
- (iii) Request to Provincial Governor to establish PRSC and PRSC-WG;
- (iv) Orienting, as needed, PRSC and its WG (PRSC-WG) on their tasks relative to RAP updating and implementation;
- (v) Manage and supervise the implementation of RAP such as DMS;
- (vi) Negotiation and Contract making with APs;
- (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

104. 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.

105. 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.

106. 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.

107. 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 IMPLEMENTAION SCHEDULE

108. 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 an RCS, IRC will calculate compensation amount and request budget disbursement to RGC.

109. 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.

110. 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.

111. 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.

112. 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	October 2013
RAP Updating following Detailed Design	Mar – Aug 2015
Submission and JICA Approval of Updated RAP	Sep 2015
Implementation of the Approved Updated RAP	Oct 2015 – Sep 2016
Internal Monitoring (Submission of Quarterly Progress Reports)	Oct 2015 and forwarding
External Monitoring (Intermittent)	Nov 2015 to January 2017
Post-evaluation	Nov - Dec 2017
Start of Civil Works*	Oct 2016

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

8 PUBLIC PARTICIPATION AND CONSULTATION

113. **Stakeholders** of the Project include provincial/district, commune/village officials, local people along the existing NR-5, KCHN and Udong 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

114. 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, KCHN and Udong 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)

Project Process Stage	Participatory Activities and Participants	Outputs	Responsible Institution
	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

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

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

8.2.1 Schedule of Stakeholder Meetings

116. [The](#) schedules of stakeholder meetings held regarding NR-5 are shown in Table 8-2.

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

Province	District/Commune	Venue	Date	Participants
Provincial Stakeholder Meeting				
KCHN	Krong Kampong Chhnang	PDPWT Office	6 Dec. 2012 at 9:30 am	Male=26 Female=2
PST	Krong Pursat	PDPWT Office	6 Dec. 2012 at 2:30 pm	Male=14 Female=1
Public Consultation Meeting (before cut-off date)				
1-KCHN	Sameakki Mean Chey and Kampong Tralach District - Svay - Sedthei - Long Vaek	Svay commune center	25 Dec. 2012 at 8:30 am	Male=12 Female=5
2-KCHN	Kampong Tralach District - Ou Ruessei - Peani - Tma Edth	Ou Ruessei commune center	25 Dec. 2012 at 10:00 am	Male=20 Female=6
3-KCHN	Kampong Tralach District - Chhouk Sar - Chres - Ta Chres	Praseah Thmey Mosque	25 Dec. 2012 at 2:00 pm	Male=33 Female=30

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.

Province	District/Commune	Venue	Date	Participants
4-KCHN	Kampong Tralach District - Saeb	Saeb commune center	25 Dec. 2012 at 3:30 pm	Male=28 Female=8
5-KCHN	Rolea B'ier District - Rolea B'ier - Chrey Bak - Srae Thmey	Chrey Bak pagoda	26 Dec. 2012 at 8:00 am	Male=12 Female=5
6-KCHN	Rolea B'ier District - Svay Chrum - Pongro	Preah Theat pagoda	26 Dec. 2012 at 9:30 am	Male=9 Female=5
7-KCHN	Baribour District - Melum - Phsar	Psar Baribour pagoda	26 Dec. 2012 at 2:00 pm	Male=35 Female=40
8-KCHN	Baribour District - Khon Rang - Popel	Angk pagoda	26 Dec. 2012 at 3:30 pm	Male=42 Female=67
9-KCHN	Baribour District - Trapeang Chan	Trapeang Chan Commune Centre	28 Dec. 2012 at 8:30 am	Male=18 Female=25
10-KCHN	Baribour District - Ponley - Chak	Ponley pagoda	28 Dec. 2012 at 10:00 am	Male=63 Female=29
11-KCHN	Rolea B'ier District - Toeuk Haut	Toeuk Haut commune center	28 Dec. 2012 at 10:00 am	Male=25 Female=43
12-PST	Krakor District - Boeung Kantuot - Thnaot Chum	Boeung Kantuot Commune Centre	27 Dec. 2012 at 8:00 am	Male=36 Female=40
13-PST	Krakor District - Sna Ansa - Ou Sandan	Sna Ansa Commune Centre	27 Dec. 2012 at 9:30 am	Male=26 Female=72
14-PST	Krakor District - Kbal Trach - Along Thnaot	CPP Centre of Krakor	27 Dec. 2012 at 2:30 pm	Male=36 Female=22
15-PST	Krakor District - Ansa Chambak	Ansa Chambak Commune Centre	27 Dec. 2012 at 4:00 pm	Male=15 Female=3
16-KDL	Ponhea Leu District - Kampong Luong - Vihear Luong	Vihear Luong Commune Centre	10 Apr. 2013 at 8:30 am	Male=80 Female=100
17-KCHN	Kampong Tralach District - Longvaek	Psar Trach primary school	10 Apr. 2013 at 10:00 am	Male=32 Female=10

8.2.2 Key Points Raised and Discussed

(a) PROVINCIAL Stakeholder Meetings

117. Two provincial stakeholder meetings were conducted at the same day in Kampong Chhnang (included Kandal and Kampong Speu province) and Pursat 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 option.

118. 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 (before cut-off date)

119. A few days before the IOL commenced on 1st January 2013 and 17th April 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, Kampong Chhnang and Kandal Provinces by the PMU-MPWT and the Consultant (JICA Study Team) for the purpose of discussing the following:

- (i) Project technical assistance background and objectives;
- (ii) Main activities of the research team (i.e., conduct of socio-economic household survey, IOL, RCS, etc.);
- (iii) 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: 1st January 2013 for NR-5 and KCHN Bypass and 11th April 2013 for Udong Bypass; and
- (vi) Question and Response.

120. After an introduction of Local Authority, Director of International Cooperation Department (ICD)/MPWT described the background of NR-5 and its current situation, background of the Project and its impacts, both positive and negative. 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 before cut-off date)**

Question	Response
1. About the project implementation	
Can the project provide us a detailed design of the new road?	ICD/MPWT: This stage is a feasibility (initial) study, so we do not yet have any detailed road designing. It will be done during the detailed study or project implementation.
When will the civil works start?	ICD/MPWT: At the moment we do not exactly know, because the project is still studying. We will know when the project is approved.
Where will KCHN bypass be located?	ICD/MPWT: The bypass will be approximately started from PK: 82+000 crosses Chrey Bak commune, then goes to Srae Thmey commune before it crosses Phnom Tauch and continues to a

Question	Response
	<p>conjunction between NR-5 and the access road to KCHN Airport. The bypass construction will require on private land, therefore the Project will compensate to the owners at the replacement cost based on the market price.</p> <p>From 1st January 2013, people will not be permitted to build any structure on the PRW, particular for the bypass area. For bypass road, the study team will identify PRW alignment by pegging out in mid-January. After, that any construction in the PRW will not be allowed, and only cropping will be permitted.</p>
What is the size of the actual road after the construction?	<p>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.</p>
2. About the ROW/PRW	
The PRW is 20m. How will it be measured, from the road center line?	<p>ICD/MPWT: Yes, it will be measured from the road center line. So in total, it is 40m. The ROW of NR5 is 30m, in total is 60m. Therefore, the affected land will not be compensated, except affected structures and trees.</p>
What size is the ROW in urban area?	<p>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.</p>
What size of PRW of the KCHN bypass?	<p>ICD/MPWT: It will be took 20m in each side the same as NR-5.</p>
3. About the relocation	
What will the Project do with the landless household?	<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 better because of the road construction.</p>
Who will respond for removing the affected stall or house?	<p>ICD/MPWT: There are four stages in resettlement implementation:</p> <ol style="list-style-type: none"> 1- Data collection stage: IRC WG will conduct the DMS to collect and register all affected properties and AHs. 2- Contract making stage: After DMS conducting, IRC WG comes to make a negotiation with AHs for contact signing. 3- Compensation stage: After the contact signing, IRC will make compensation to the agreed AHs. 4- The last stage is relocation. AHs will be given enough time for relocating their affected properties.
The Project implementation will affect my house in PRW. The remained land will be too small. What can the Project	<p>ICD/MPWT:</p> <ol style="list-style-type: none"> 1- The affected house will be compensated at replacement cost which will be calculated by engineer or master carpenter. The

Question	Response
do for that?	<p>construction materials and labor cost will be calculated in market price in the local area.</p> <p>2- Because the affected land in PRW/ROW, it is a state land and will not be compensated by the Project. 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.</p>
To avoid any lost, 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?	ICD/MPWT: People can continue to use the remained land only in crop cultivation purpose. In order to avoid any loss, permanent structures such as houses or shops will not be allowed to be built.
In the urban area, the PRW will be narrowed?	<p>ICD/MPWT: In this stage it will be the same 20m-20m for the whole Project.</p> <p>During the detailed design, it may be narrowed in some parts in order to minimize resettlement impact as much as possible or other bypass will be considered, e.g. Udong Bypass.</p>
4. About the compensation	
Will the Project compensate for affected electricity poles?	<p>ICD/MP WT: There are two options:</p> <p>1- In case it is a state property, it will be a special case that IRC have to negotiate with EDC.</p> <p>2- If it is a private property, the budget for reconstruction will be covered by the construction road budget.</p>
Will the Project compensate for affected structures and trees?	ICD/MP WT: It will be compensated at replacement cost which will study by an independent consultant. The affected structures and trees will be classified by size, age and types.
I have bought a land in ROW. Will the Project compensate for the affected land?	ICD/MP WT: As everybody knows, the land in ROW is the state land. Therefore, there is no compensation at all for such affected land. People, who have bought the land in ROW, is illegally.
Will the Project compensate for the whole structure if it is affected in a part?	<p>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.</p> <p>The compensation for the affected structure will be divided by type, size and number of floor.</p>
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.
Will the Project compensate for land improvement in PRW?	ICD/MPWT: If the people have been filling the land (for house construction or business activity against a pond resulted from previous road construction) in PRW, the land improvement will not be compensated, because after the road construction all the land in PRW will be reinstated by a contractor. After the Project

Question	Response
	implementation, it will be the same as or better than the original condition.
What will the Project do with severely affected persons who cannot restore their properties by the amount of compensation provided?	<p>ICD/MPWT: The government would not make someone to be suffered by the Project development. The Project policy will be approved, not only by the Cambodia government, but also by a donor of the Project. Moreover, the compensation rates (the replacement cost based on the market prices) will be studied by the independent agency.</p> <p>In addition, the compensation rate will refer to the different types of houses such as zincs house, concrete house, etc. It also includes labor force and construction materials and transportation fee. The construction material price will refer to the prices in the local areas of AHs. And for the trees, the compensation will refer to the different types and ages of trees such as small or medium trees. The Project is developed for public interest. It is different from private investments. The public interest will be strongly considered by the Project.</p> <p>The income restoration program also will be provided by the project to help SAHs to improve their household incomes.</p>
I have paid about USD 10,000.00 for my house construction. Would the Project compensate for the same amount?	ICD/MPWT: The study team will conduct RCS in mid-January 2013. 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 Project pay for the affected public fence?	ICD/MPWT: Affected fence will be replaced with new ones, if they are 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 fences by the compensation to be provided.
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.
Land in PRW of NR-5 belongs to the government, but people have planted their crops and trees in the area. Do the Project compensate for it or not?	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.
Are there any compensate for the affected land?	<p>ICD/MPWT: The affected lands will be divided into two types of land:</p> <ol style="list-style-type: none"> 1- For land in ROW, the project will not compensate, because the affected land is a state land. 2- For private land, the project will compensate to owner with replacement cost. So affected people can have enough money to buy a similar land to the affected land.

9 GRIEVANCE REDRESS

121. 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

122. 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

123. 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

124. 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

125. 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

126. Landless AHs have expressed their preferred option for relocation during stakeholder meeting in December 2012. 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

127. 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.

- Self relocation option: For road section with landless AHs, landless AHs 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.
- 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.

128. 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.

129. 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.

130. 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.

131. 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

132. 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 Krakor, Baribour, Rolea B'ier and Kampong Tralach Districts 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 Krakor District

133. In Krakor District, PST Province, there are only 19 landless AHs. 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.

10.3.2 Resettlement Site at Baribour District

134. In Baribour District, KCHN province, there are 27 landless AHs. 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.

10.3.3 Resettlement Site at Rolea B'ier District

135. 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 Rolea B'ier District, KCHN province, there are 26 landless AHs, included one Khmer Islam (Cham) which is preferred for self-relocation option. 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).

10.3.4 Resettlement Site at Kampong Tralach District

136. The RS will be covered for landless AHs coming from district of Kampong Tralach, Sameakki Mean Chey and Ponhea Leu. According to IOL data, among 39 landless AHs from the three districts, there are 9 Khmer Islam (Cham) households. The main purpose of the Khmer Islam is to stay closer to the Mosque where they used to often pray. Therefore, it is difficult to find a suitable place for them. The Best option for Khmer Islam, the project should provide them the cash assistance for self-relocations in their community.

11 INCOME RESTORATION STRATEGY

137. 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, an Income Restoration Program (IRP) will be developed during resettlement implementation stage, after DMS is conducted. IRC will contract out to implement IRP (See *Appendix 3: Terms of Reference for Income Restoration Programs*).

138. 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

139. 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 in January-April 2013.

12.1 Procedures for Flow of Funds

140. 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

141. 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 2015 or 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

142. The estimated costs for resettlement and land acquisition based on the RCS and the IOL during the project preparatory study is USD 10,037,464.10, which includes cash compensation and assistance for USD 8,882,711.60, external monitoring and income restoration of USD 266,481.35, administration cost of 5% equivalent to USD 444,135.58, and contingency of 5% or equivalent to USD 444,135.58. 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. The resettlement estimated cost will be updated during the resettlement implementation based on the Detailed Measurement Survey (DMS) and the RCS.

13 MONITORING AND EVALUATION

13.1 Internal Monitoring

143. 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.

144. 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

145. The external monitor has the specific responsibility of studying and reporting on measures for income restoration 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 Commune Resettlement Committees and local NGOs may provide additional support.

146. 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.

147. 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.

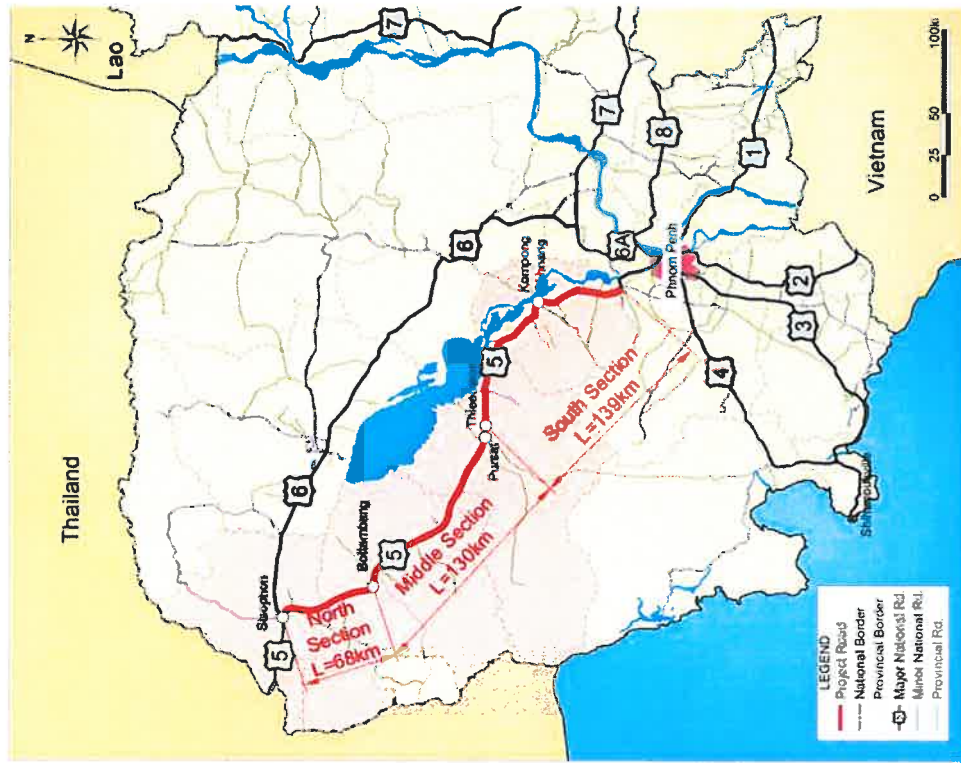
Appendix 1: Project Information Booklet (English Draft Version)

PROJECT INFORMATION BOOKLET

for

THE RESETTLEMENT ACTION PLAN

NATIONAL ROAD No.5 IMPROVEMENT PROJECT



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 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 unharvested 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, Kampong Chhnang and Kandal Province,
also Provincial Department of Public Works:
Pursat, Kampong Chhnang and Kandal**

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 bilateral and multilateral development partners.
2. National Road No.5 (NR-5) is the trunk national road connecting the capital city of Phnom Penh to major cities such as Kampong Chhnang and Battambang. It is also designated as Asian Highway No. 1 (AH-1) or the Southern Economic Corridor of Greater Mekong Sub-region (GMS). However, the road surface type is mostly DBST and the surface condition is being deteriorated due to rapidly increasing heavy vehicles, as well as inundation/flood. In particular, Northern Section and Southern Section require urgent rehabilitation in view of insufficient road width and poor pavement condition.
3. Following the RGC's request to ensure sustainable transportation of the NR5, JICA study team was mobilized in 2012 to conduct a feasibility study of the South Section from Praek Kdam to Thlea Ma'am including the two bypasses around Kampong Chhnang and Udong cities, while the feasibility study of the Middle Section Thlea Ma'am to Battambang including the bypass around Pursat will be conducted later based on the agreement between the two governments.
4. 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).
5. 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.
6. 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.
7. 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.

8. In January-April 2013, 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.

9. 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 is the date of the first day of IOL, for NR-5 and KCHN bypass is on 1st January 2013 and for Udong bypass is on 11th April 2013.

10. Refer to the IOL results, 3,368 households to be affected by the Project. Among them, 706 AHs will lose their private land. A total of 609,483.50 m² of private land in the two bypasses will be acquired for the Project. Of these, 95.04% (579,255.87 m²) is used for growing rice.

11. A total of 1,079 AHs along NR-5 and the two bypasses, 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 14,326 trees of various species and age in NR-5 and the two bypasses have been counted during the IOL. Except some trees in KCHN bypass, most trees are not commercially grown, meaning, they are sporadically planted inside the ROW.

II. Management and Monitoring

12. 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.

13. 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

14. 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

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

IV. Specific Purpose of External Monitoring

16. 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.

17. 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

18. 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 by IRC 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

19. 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.

20. 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.

21. The monitoring reports will include one inception report, 8 quarterly monitoring reports, one base line survey report (six months before post evaluation) and one post evaluation report.

22. 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
<u>Post Evaluation</u>				
1	Team Leader	50	1	50
2	Social Enumerator	30	2	60
Total				636

23. 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.

24. 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

25. 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:

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

27. Expressions of interest should be received no late than [time, date]

28. 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. 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. In January-April 2013, 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, 3,368 households to be affected by the Project. Among them, 706 AHs will lose their private land. A total of 609,483.50 m² of private land in the two bypasses will be acquired for the Project. Of these, 95.04% (579,255.87 m²) is used for growing rice. A total of 1,079 AHs along NR-5 and the two bypasses will have 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 14,326 trees of various species and age in NR-5 and the two bypasses 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.
14. Training will be at a minimum of four (4) centres accessible in each of the four (4) sections of the road works and will be conducted in Khmer (two (2) centres for each province).

4.2 Job creation

15. 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 and Kampong Chhnang (including Kandal) province aimed at providing on-the-job training and employment for a member in the severely and/or vulnerable affected households.
16. 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

17. 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

18. 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

19. 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

20. 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

VII. Requirement for report and Reporting

6.1 Requirement for report

21. 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:

22. 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.

23. 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.

24. 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.

25. Completion report

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

6.2 Reporting

26. 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

VIII. Schedule

7.1 Schedule

- 27. 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:...../...../ 2013

Starting time:.....

Interviewer's name:..... Ending time:.....

Supervisor's name:..... Village Headman:

I. LOCATION

PK: (Road direction is from Phnom Penh to Banteay Mean Chey).

Left Right ☐

NR#5 Bypass ☐

House No:

Village:

Commune: District: Province:

Distance from centreline of road to people's landmeters;

Distance from centreline of road to people's house.....meters (first column or wall).

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 Ethnic group: ☐

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

2.5 The respondent is the household head? ☐ Yes (If yes go to 2.8) ☐ No

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

Name of the respondent:

2.7 Age: Sex: Male ☐ Female ☐

2.8 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)

2.9 Religion: ☐

1= Buddhist 2= Muslim 3= Christ 4=Other

III. SOCIOECONOMIC PROFILE OF AFFECTED HOUSEHOLD

3.1 How many members are in the household?

3.2 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 J, K and L:

00	None or Unable to work	09	Battery 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)

3.3 Household Assets

3.3.1 Agricultural equipments:

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

3.3.2 Other Assets:

Equipment types	Number	Total Cost (Riel)	Equipment types	Number	Total Cost (Riel)
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)		

3.3.3 Livestock:

Type of livestock	Total Number		Sales of Livestock in 2010	
	Quantity	Value in Riels	Quantity	Value in Riels
Oxen				
Buffalo				
Pigs				
Horses				
Chickens				
Ducks				
Other (spec.).....				

3.3.4 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	26=Teuk Dos Kou	27=Acacia/Eucalyptus	28=Lemon
29=Mango	30=Papaya	31= Sugar Palm	32=Cashew
33=Other.....			

No.	Tree types	Unit	Total Quantity	Income in 2010 (Riel)	Number of affected trees
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
Total Income (Riel)					

3.3.5 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						
Total (Riel)						

3.3.6 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.):

Material	Structure: ...	Structure: ...	Structure: ...	Structure: ...
Roof				
Wall				
Floor				
Column				

Material	Structure: ...	Structure: ...	Structure: ...	Structure: ...
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

3.3.7 Other fixed assets:

No.	TYPE OF ASSETS	UNIT	Affected Quantity	Other
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			
10.	Toilet			
11.	Other (spec.):			

3.4 Incomes

3.4.1 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. Other (spec.)..... |

3.4.2 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)

3.5 Expenses

Annual expense Riel converts to USD:

3.5.1 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.).....			

Item	Unit	Price per unit/Riel	Total price (Riel)
Total:			
Annual total (365 days)			

3.5.2 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)			

3.5.3 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:			

3.6 Health

3.6.1 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:				

3.6.2 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 ☐

3.7 Education

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

3.7.2 How many children in household attend primary school? ☐

3.7.3 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)..... |

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

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

3.7.6 If children of lower secondary 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)..... |

3.8 Credit:

3.8.1 Have you taken any loan? ☐ No (skip to Q. 3.8.4) ☐ Yes

3.8.2 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).....

3.8.3 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)..... | | |

3.9 Living condition

A. Water source:

3.9.1 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)..... | | | |

- 3.9.2 If buying from vendor, how much it cost per day? Riels
- 3.9.3 If you collect by yourself, how much time you spend to do so? minutes
- 3.9.4 Is the drinking water filter? ☐ Yes ☐ No
- 3.9.5 Is the drinking water boiled? ☐ Yes, always ☐ Yes, sometimes ☐ No
- 3.9.6 Is the drinking water filtered? ☐ Yes ☐ No

B. Sanitation:

- 3.9.7 Do you have a pit latrine? ☐ Yes ☐ No
- 3.9.8 Is there any drainage system near your house? ☐ Yes ☐ No
- 3.9.9 If yes, please tick in box as follow:
- Proper rain water drainage ☐
 - Waste water drainage ☐
 - An open drain ☐

C. Energy source:

- 3.9.10 Lighting: Cooking:
- | | | |
|--------------------------------------|------------------|-----------------------|
| 1 = None | 2 = Fire wood | 3 = Private generator |
| 4 = State Electricity | 5 = Battery | 6 = Charcoal |
| 7 = Gas / Kerosene
(specify)..... | 8 = Torch/Rubber | 9 = Other |

3.10 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 impact | <input type="checkbox"/> Worsen environmental |
| <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 condition | <input type="checkbox"/> Worsen people health |
| <input type="checkbox"/> Loss of land use in ROW | <input type="checkbox"/> Makes people migrate away |
| <input type="checkbox"/> Worsen access to school | <input type="checkbox"/> other (spec.) |

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

0 = No answer
move

1 = Not agree

2 = Agree with assistant

3=Voluntary to

SIGNATURE

Household Head

Village Headman

Interviewer

Sketch map of the affected house