

**DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REPUBLIC OF THE PHILIPPINES**

**PREPARATORY SURVEY FOR
CAVITE INDUSTRIAL AREA
FLOOD RISK MANAGEMENT
PROJECT
IN THE REPUBLIC OF THE
PHILIPPINES**

DRAFT

RESETTLEMENT ACTION PLAN

JUNE 2017

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Acronyms and Abbreviations

BIR	: Bureau of Internal Revenue
CA	: Commonwealth Act
CAD	: Computer Aided Design System
CARA	: Comprehensive Agrarian Reform Act
CALAX	: Cavite Laguna Expressway
CAVITEX	: Cavite Expressway
CDEO	: DPWH Cavite First District Engineering Office
CEZ	: Cavite Economic Zone
CFMP	: Comprehensive Flood Mitigation Plan
CLLEX	: Central Luzon Link Expressway
CLUP	: Comprehensive Land Use Plan
C/MRIC	: City/Municipality Resettlement Implementation Committee
CPDO	: City Planning and Development Office
CSOs	: Civil Society Organizations
C/P	: Counterpart
CSWDO	: City Social Welfare and Development Office
DA	: Department of Agriculture
DED	: Detailed Engineering Design
DENR	: Department of Environment and Natural Resources
DEO	: District Engineering Office
DO	: Department Order
DPWH	: Department of Public Works and Highways
DSWD	: Department of Social Welfare and Development
D/D	: Detailed Design
DOLE	: Department of Labour and Employment
DTI	: Department of Trade and Industry
ECC	: Environmental Compliance Certificate
EIA	: Environmental Impact Assessment
EMA	: External Monitoring Agent
EMB	: Environmental Management Bureau
ENRO	: Environment and Natural Resources Office
EPZA	: Export Processing Zone Authority
ESC	: Environmental and Social Considerations
ESSD	: Environmental and Social Safeguard Division
FCMC	: Flood Control Management Cluster
FCSEC	: Flood Control and Sabo Engineering Center

F/S	: Feasibility Study
GIS	: Geographical Information System
GMMA	: Greater Metro Manila Area
GOJ	: Government of Japan
GOP	: Government of Philippine
GPS	: Global Positioning System
IMA	: Internal Monitoring Agent
ISFs	: Informal Settler Families
JICA	: Japan International Cooperation Agency
JST	: JICA Survey Team
LAPRAP	: Land Acquisition Plan and Resettlement Action Plan
LARRIPP	: Land Acquisition, Resettlement, Rehabilitation and Indigenous People's Policy
LGU	: Local Government Units
LRT	: Light Rail Transit
MOA	: Memorandum of Agreement
MPDC	: Municipal Planning and Development Coordinator
MPDO	: Municipal Planning and Development Office
M/P	: Master Plan
NCR	: National Capital Region
NEDA	: National Economic Development Agency
NGO	: Nongovernmental Organization
NHA	: National Housing Authority
NIA	: National Irrigation Administration
ODA	: Official Development Assistance
PAF	: Project Affected Family
PAP	: Project Affected Person
PENRO	: Provincial Environment and Natural Resources Office
PEO	: Provincial Engineering Office
PESO	: Public Employment Service Office
PMO	: Project Management Office
PHP	: Philippine Peso
RA	: Republic Acts
RAP	: Resettlement Action Plan
RO IV-A	: DPWH Region IV-A Office
ROW	: Right of Way
TCT	: Transfer Certificate of Title
TESDA	: Technical Education and Skills Development Authority
TOR	: Terms of Reference
UPMO-FCMC	: Unified Project Management Office- Flood Control Management Cluster
WB	: World Bank

CHAPTER 1. PROJECT DESCRIPTION

1.1 Background of the Project

The Republic of the Philippines (hereinafter referred to as “the Philippines”) is one of the countries that suffer from frequent natural disasters. The typhoons, storms, and floods in particular cause serious human damage and negative impact to economic activities. In spite of the serious damage by the natural disasters, full-fledged flood mitigation measures have been implemented for only a limited number of river basins due to budgetary and personnel constraints. For this reason, enormous flood damages have occurred every year in many places, and the effective development of flood mitigation projects has been one of the important issues in the country.

Under such circumstances, the Government of the Philippines (hereinafter referred to as “the GOP”) adopted watershed conservation and infrastructure development for flood risk mitigation as the principal measures in the medium-term development plan (2011-2016 years). The GOP further worked out the natural strategy for “(1) preferential construction of flood mitigation facilities for high flood risk area”, “(2) adaptation to climate change”, and “(3) disaster risk reduction and management from both structural and non-structural measures”.

To cope with the above circumstances, the GOP has requested the Japan International Cooperation Agency (hereinafter referred to as “JICA”) to undertake this Preparatory Survey (hereinafter referred to as “the Study”). The purpose of the Study is to formulate the plan for the comprehensive flood mitigation projects which constitute combinations of structural and non-structural measures for the three river basins located in the eastern part of Cavite Province that are vulnerable to flood and located in a strategic position in terms of economic development. The GOP and JICA agreed on the scope and implementing arrangements for the Study in July 2014.

Through the Study, structural measures for the flood mitigation of San Juan River with the design scale of 1/25year flood frequency and for the storm water drainage of Maalimango Creek Area with the design scale of 1/15 year flood frequency were proposed as the priority projects.

1.2 Objective of the Project

The objective of Project to reduce the disaster risks, flood damage risk of 1/25 years flood frequency and chronic inundation of 1/15-year flood frequency or less, for built-up area in Noveleta Municipality, Rosario Municipality and Cavite Economic Zone (CEZ)

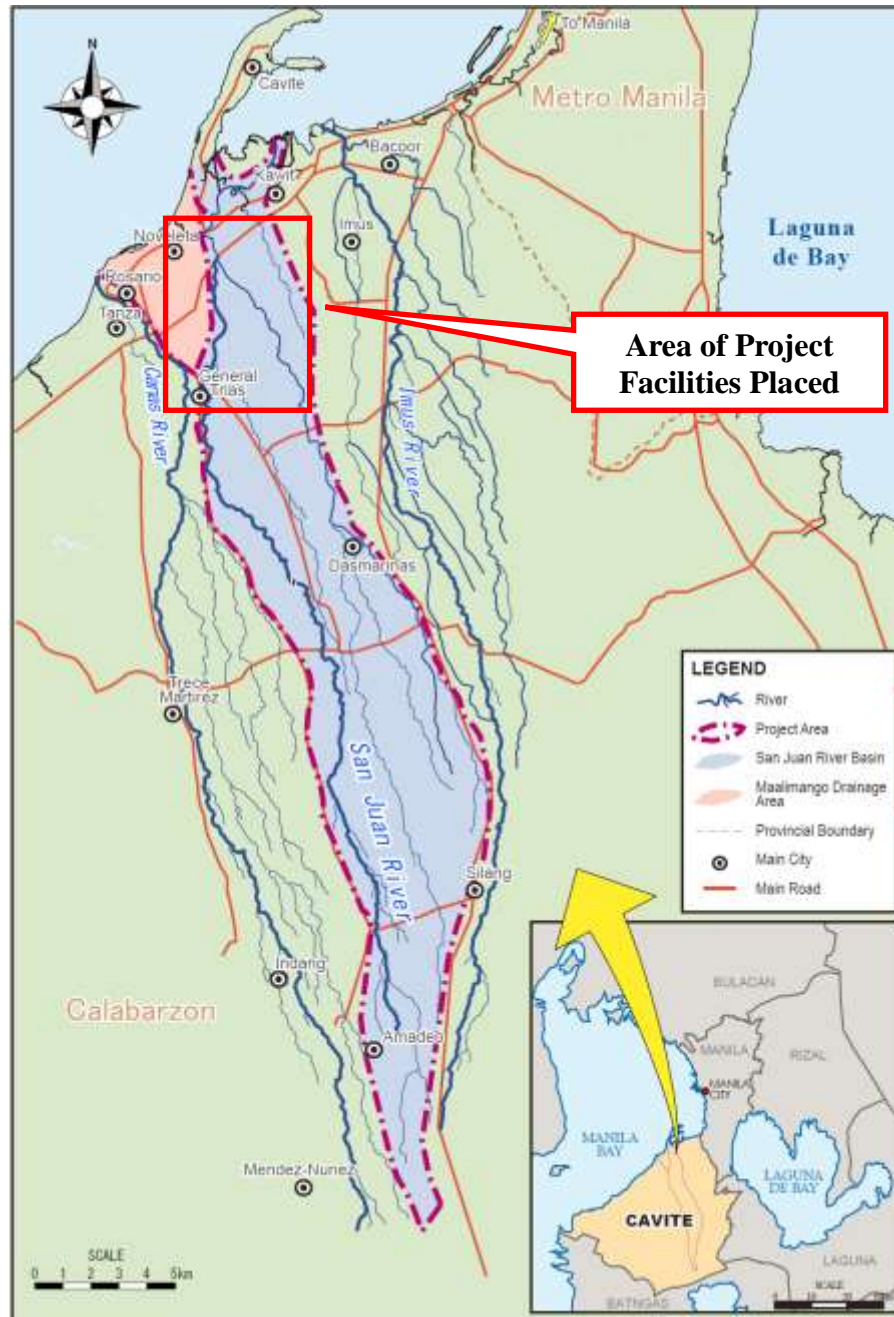
1.3 Location of the Project Area

The Project is located in the Province of Cavite, in particular, in the Cities of Imus and Gen. Trias and the Municipalities of Kawit, Rosario, and Noveleta. Cavite Province is located on the southern shores of Manila Bay in the CALABARZON Region, Island of Luzon. Situated just 21 Kilometers south of Manila surrounded by the Province of Laguna to the east, Metro Manila to the northeast, and Batangas Province to the South. To the west lies the West Philippine Sea. The province of Cavite is the second smallest province in the Region, occupies a land area of 1,427.06 square kilometer which is approximately 8.72% of CALABARZON. The municipalities of Maragondon and Silang have the biggest land areas, comprising of 165.59 square kilometers and 156.41 square kilometers respectively, while the municipality of Noveleta has the smallest land area of 5.41 square kilometers. Situated at the entrance of Manila Bay, Cavite is characterized by rolling hinterlands punctuated by hills; shoreline fronting Manila Bay at sea level; and rugged portion at the boundary with Batangas where the Dos Picos Mountains are located.

Cavite is divided into four physiographical areas namely: the lowest lowland area, lowland area, the central hilly area and the upland mountainous area. The proposed flood control projects subject for feasibility is located in Item (a) and (b) divisions, Lowest Lowland Area and Lowland Area, specifically in the Cities of Imus and General Trias and in the municipalities of Kawit, Noveleta and Rosario. The features per divisions are described below:

- Lowest Lowland Area is a coastal plain in particular have extremely low ground level of EL. 0 m to EL. 2 m compared to the high tide level of about EL. 0.8 m from the Mean Sea Level (MSL). These are the city of Bacoor and the municipalities of Kawit, Noveleta and Rosario.
- Lowland area consists of the coastal and alluvial plains. These areas have flat ground slope of less than 0.5% and low ground elevation of EL. 2 m to EL. 30 m. The Alluvial plain can be found in the cities of Imus and southern part of General Trias. In these cities forms the transition area between the coastal plain and the central hilly area. It covers some areas of the cities of Bacoor, Imus and General Trias and in the municipalities of Kawit, Noveleta, Rosario and Tanza
- Central Hilly area is generally found on the mountain foot slope. It forms the rolling tuffaceous plateau. This topography includes steep hills, ridges and elevated inland valley. The plateau is characterized with ground elevation ranging from 30 m to nearly 400 m. Its ground ranges from 0.5 to 2% found in the cities of Trece Martirez and Dasmariñas, and the municipalities of Indang and Silang.
- Upland Mountainous Area is found in the municipality of Amadeo and Tagaytay City. Situated at a very high elevation above EL. 400 m with slopes of more than 2%. The Tagaytay ridge has a peak elevation of 650 m.

The province belong to type 1 climate based on the Climate Map of the Philippines Atmospheric, Geophysical and Astronomical Services Administration (PAGASA). It has two pronounced seasons, the dry season, which usually begins in the month of November, and ends in April, and the rainy season, which starts in the month of May and ends in October. The province is engaged in agricultural production with 50.33% of the total provincial land area are utilized as agriculture. Cavite has twelve (12) economic zones, the largest Cavite Economics Zone is located in the project area in General Trias.

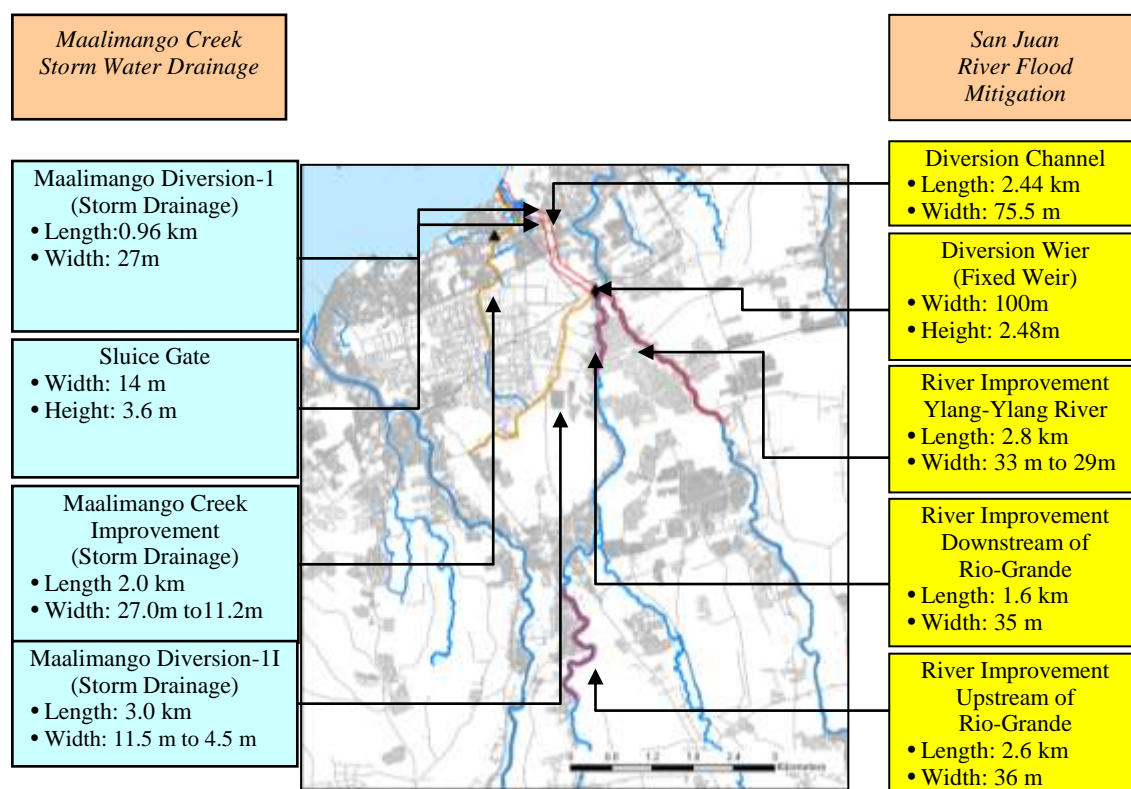


Source: THE STUDY ON COMPREHENSIVE FLOOD MITIGATION FOR CAVITE LOWLAND AREA IN THE REPUBLIC OF THE PHILIPPINES (FINAL REPORT), 2009

Figure 1.1 Location of Cavite province and Project Area

1.4 Project Components

As the structural river flood mitigation project, the San Juan Diversion Channel is proposed as connecting the confluence of Ylang-Ylang River and Rio Grande to Manila Bay at the scale of 75.5 meter width with 2.44 kilometer length. The structure may be designed at three meters depth with two meter-high dike. The other river improvements of Rio Grande River and Ylang-Ylang River are proposed with total 6.9 kilometer length. In addition, the other priority project as the rainwater drainage facility includes drainage improvement (widening of 2.0 kilometer-length and deepening of existing drainage channel of 1.0 kilometer length by dredging) and the constructions of Maalimango Diversion-I and II (two places at 1.0 kilometer-length and 3.0 kilometer-length). Each location of component is shown in Figure 1.2.



Source: JICA Study Team

Figure 1.2 Locations of Project Components

1.5 Minimization of Adverse Social Impacts and Resettlement

1.5.1 Layout Plan for San Juan Diversion Channel

The layout plans for San Juan Diversion Channel were studied and compared as proposed in Table 1.1. As a result, Alternative 1 was finally proposed taking into consideration the aspect of less social impact, resettlement, and simplicity of construction works. The point to set up two alternatives to the M/P is to avoid the relocations of a church with a private school where are located at the intake of the diversion channel from San Juan River.

The Alternative 2 include a construction of diversion channel and improvement of San Juan River and can require the most relocation especially along San Juan River to the proposed alignment of M/P and the Alternative 1. The Alternative 2 will require no relocations of a church and a school at the confluence of San Juan River, Ylang-Ylang River and Rio Grande River as well as the Alternative 1 and of partial relocation of cemetery but another relocation of church will be necessary at the inlet of diversion channel.

For the diversion channel, the Alternative 2 will affect tangled networks of the existing roads and those recoveries will be the most difficult: Elevation of Marseilla St. will be required at the intersection in front of the Noveleta Municipality Hall; the longest bridge is required on Marseilla St. with elevation of approach road; and little space to recover the affected barangay roads. The construction works of the road recoveries can cause more land acquisition, relocation and traffic congestion.

Besides, for the improvement of San Juan River, the Alternative 2 will require: a temporary bridges on San Juan River at EPZA diversion road; the temporary bridge can cause the traffic congestion on EPZA diversion road which is main access road for the CEZ; a barangay road along San Juan River will be reconstructed; and the improvement works of San Juan River have to be carried out with in a limited space in the urban area along the river.

The Alternative 1 had less impacts on the road recoveries than the Alternative 2 and no impacts on San Juan River that the Alternative 2 has. Therefore, the Alternative 1 was proposed for the project alignment to minimize the social impacts.

1.5.2 Layout Plan for Maalimango Diversion-II

The layout plan for Maalimango Diversion-II was studied as proposed in Table 1.2. The Alternative 1 was set up by designing the alignment through the backyard circumventing the structures to reduce the impacts on the residential and commercial structures along EPZA diversion road. As the result, Alternative 1 was proposed because relocation of the structures can be minimized over the proposed alignment in MP.

Table 1.1 Comparison of Alternatives of San Juan Diversion Channel




Item	Proposed Alignment in M/P	Alternative 1	Alternative 2
Layout			
Feature	<ul style="list-style-type: none"> •Length: 2.31km •Waterway Width: 105m 	<ul style="list-style-type: none"> •Length: 2.46km •Waterway Width: 105m •Inlet is moved to upstream side to avoid relocation of the church. •Improvement of Ylang-Ylang River at the confluence will be required for diversion. 	<ul style="list-style-type: none"> •Length: 1.34km •Waterway Width: 105m •Additional San Juan River Improvement: 1.4km •Inlet is moved to downstream side to shorten the diversion channel
Land Acquisition/Resettlement	<ul style="list-style-type: none"> •House relocation: 630 buildings •Land Acquisition: 27.1 ha 	<ul style="list-style-type: none"> •House relocation: 654 buildings •Land Acquisition: 27.9 ha 	<ul style="list-style-type: none"> •House relocation: 710 buildings •Land Acquisition: 26.3 ha
Impacts by Diversion Channel			
Impacts on public facilities	<ul style="list-style-type: none"> •The diversion channel will require partial relocation of cemetery. •The diversion channel will require relocation of a church and a school at the confluence of San Juan River, Ylang-Ylang River and Rio Grande River. •The diversion channel crosses 2 national roads, Marseilla St. and EPZA diversion road, 2 barangay roads. 	<ul style="list-style-type: none"> •The diversion channel will require partial relocation of cemetery •The diversion channel will require no relocation of a church and a school at the confluence of San Juan River, Ylang-Ylang River and Rio Grande River. •The diversion channel crosses 2 national roads, Marseilla St. and EPZA diversion road, 2 barangay roads. 	<ul style="list-style-type: none"> •The diversion channel will require no relocation of a cemetery. •The diversion channel will require no relocation of a church and a school at the confluence of San Juan River, Ylang-Ylang River and Rio Grande River. •The diversion channel will require another relocation of a church at the inlet of diversion channel. •The diversion channel crosses a national road (Marseilla St.) and 3 barangay roads.
Impact on Construction Work	<ul style="list-style-type: none"> •The diversion channel obliquely crosses Marseilla St. at so that the length of bridge will be rather longer. •Easier to make detours for the bridge constructions 	<ul style="list-style-type: none"> •The diversion channel crosses Marseilla St. at orthogonal angle so that the length of bridge can be the shortest. •Easier to make detours for the bridge constructions 	<ul style="list-style-type: none"> •As these affected locations of the roads have tangled networks, recoveries of the existing roads are the most difficult: Elevation of Marseilla St. will be required at the intersection in front of the Noveleta Municipality Hall; the longest bridge is required on Marseilla St. with elevation of approach road; and little space to recover the affected roads. •The construction works of the road recoveries can cause more land acquisition, relocation and traffic congestion. •The most difficult to make detours for the bridge constructions



Table 1.1 Comparison of Alternatives of San Juan Diversion Channel

Item	Proposed Alignment in M/P	Alternative 1	Alternative 2
Impact by San Juan River Improvement			
Impacts on public facilities	• None —	• None —	•The San Juan River improvement will affect a bridge on EPZA diversion road and a barangay road along San Juan River. —
Impact on Construction Work	• None —	• None —	•Temporary bridges on San Juan River at EPZA diversion road will be required. •The temporary bridge can cause the traffic congestion. •A barangay road along San Juan River will be reconstructed. •San Juan River improvement works have to be carried out with in a limited space in the urban area along the river. —
Preliminary Cost Estimation	• Direct Cost: 1.18 billion PHP • Compensation: 0.59 billion PHP —	•Direct Cost: 1.21 billion PHP •Compensation: 0.60 billion PHP —	•Direct Cost: 1.16 billion PHP •Compensation: 0.66 billion PHP —
Evaluation	(comparison target) —	•Better than MP —	•Not better than MP —

Evaluation: ○ = better than MP, — = almost equivalent to MP, △ = not better than MP

Source: JICA Study Team

Table 1.2 Comparison of Alignment of Maalimango Diversion-II

Item	Proposed Alignment in MP		Alternative 1	
Layout				
Feature	<ul style="list-style-type: none"> Length: 3.24km Waterway Width: 4.5m to 11.5m Along EPZA diversion road 		<ul style="list-style-type: none"> Length: 3.52km Waterway Width: 4.5m to 11.5m Along EPZA diversion road, through the backyard circumventing residential structures and commercial facilities 	
Land Acquisition/Resettlement	<ul style="list-style-type: none"> House relocation: 45 buildings Land Acquisition: 7.8 ha 	—	<ul style="list-style-type: none"> House relocation: 20 buildings Land Acquisition: 7.8 ha 	○
Relocation	<ul style="list-style-type: none"> The drainage will affect several commercial facilities including 3 gas stations. 	—	<ul style="list-style-type: none"> The drainage will less affect commercial facilities, and no gas stations will be affected. 	○
Impacts on public facilities	<ul style="list-style-type: none"> The drainage crosses 4 larger roads, 7 residential roads, 1 maintenance road. Electrical lines and poles need to be relocated along the drainage. 	—	<ul style="list-style-type: none"> The drainage crosses 4 larger roads, 1 maintenance road. The drainage will affect direct access to the backyard. Except for a western subdivision, no need of relocation of electric lines and poles. 	○
Impact on Construction Work	<ul style="list-style-type: none"> Access bridges to the residential structures and commercial facilities will be constructed. 	—	<ul style="list-style-type: none"> For mitigation of the direct access to the backyard, about 31 small bridges will be constructed in approximately 100m interval. 	—
Preliminary Cost Estimation	<ul style="list-style-type: none"> Direct Cost: 0.46 billion PHP (excluding relocation of underground gas tank, electrical lines and poles) Compensation: 0.09 billion PHP 	—	<ul style="list-style-type: none"> Direct Cost: 0.49 billion PHP (excluding relocation of electrical lines and poles) Compensation: 0.08 billion PHP 	△
Evaluation	(comparison target)	—	Better than MP	○

Evaluation: ○ = better than MP, — = almost equivalent to MP, △ = not better than MP

Source: JICA Study Team

CHAPTER 2. OBJECTIVE OF RAP

The Resettlement Action Plan (RAP) is prepared for the proposed Cavite Industrial Area Flood Risk Management Project located in the Province of Cavite. This RAP identifies resettlement impacts, establishes compensation and entitlements, and formulates procedures that will facilitate smooth implementation of the project. This is to ensure the equitable provision of just compensation for all affected properties by the project in the acquisition of Road Right of Way as prescribed in the Land Acquisition, Resettlement, Rehabilitation, and Indigenous People's Policy (LARRIP) of the Department, and the Republic Act 10752.

The main objective of the RAP of this project to ensure that Project Affected Persons (PAPs) will be adequately supported, will restore livelihood and standard of living to the pre-project level and will not be worse off due to the project. Participation and sense of ownership is encouraged by making public consultations meaningful to the project affected people.

The objectives of the RAP are as follows:

- To determine the number of PAFs and properties/assets affected by the project
- To identify the extent of impacts of the project on their properties/assets and the measures to mitigate these impacts
- To determine the compensation and entitlements to the PAFs for their affected properties/assets
- To determine the budget estimate for compensation and entitlements, relocation and resettlement, information dissemination, public consultation, monitoring and other activities for the RAP implementation
- To provide the timetable, manner of payment and institutional arrangements for RAP implementation and
- To ensure public participation in the RAP preparation, implementation and monitoring.

CHAPTER 3. LEGAL FRAMEWORK

3.1 Outline of Legal Framework of the Philippines

3.1.1 Outline the Philippines Laws, Guidelines and DPWH Guidelines

The legal foundation for resettlement policies in the Philippines is stipulated in the Philippine Constitution (1987). The key policy frameworks are based on the DPWH’s “Land Acquisition, Resettlement, Rehabilitation and Indigenous Peoples (LARRIP) Policy (2007)”, RA 8974 “An Act to Facilitate the Acquisition of Right-of-Way, Site or Location for National Government Infrastructure Projects (November 2000)”, and “Indigenous Peoples’ Rights Act (IPRA) of 1997”. Other environmental and social safeguards of the financing institutions are also applicable especially of ADB/World Bank Resettlement Policies and JICA Guidelines.

Particularly, the LARRIPP stipulates policies on eligibility, compensation and other entitlements, indigenous peoples who will be affected by the project, public participation and consultation, grievance procedures, institutional arrangements, monitoring and evaluation as policy frameworks of the land acquisition and resettlement for DPWH projects. It also clarify the compensation at 100% replacement cost for an asset to be acquired or affected by an infrastructure project, and defines that the replacement cost is the amount necessary to replace the structure or improvement based on the current market prices for materials, equipment, labor, contractor’s profit and overhead, and all other attendant costs associated with the acquisition and installation in place of the affected improvements/installation. For the timing to pay the compensation, DPWH D.O. No. 5 (2003) stipulates that unless ROW is purchased, project notice of award to contractor cannot be issued, i.e. all kinds of compensation are paid before a project is commenced.

In addition, Republic Act No. 10752 (March 2016) was enacted to promote the Right-of-Way Acquisition of national infrastructure projects. Its implementation guidelines, Implementing Rules and Regulations of R.A. No. 10752 were issued in July 2016. In the act and guidelines, compensation by the negotiated sale is defined as one of the mode of acquiring real property. The project implementation agency shall offer to the property owner concerned as compensation price, the sum of: the current market value of the land; the replacement cost of structural and improvements, therein; and the current market value of crop and trees therein.

The outline of legal framework for land acquisition and resettlement in the Philippines is summarized in Table 3.1.

Table 3.1 Outline of Legal Framework of the Philippines

Item	Name	Outline
Land Use/ Resettlement	The Philippine Constitution (1987)	Article II, Section 10: The State shall promote social justice in all phases of development.
		Article II, Section 11: The State values the dignity of every human person and guarantees full respect for human rights.
		Article III, Section 1: No person shall be deprived of life, liberty or

Table 3.1 Outline of Legal Framework of the Philippines

Item	Name	Outline
		property without due process of law, nor shall any person be denied equal protection of the law.
		Article III, Section 9: "Private property shall not be taken for public use without just compensation."
		Article III, Section 11: Free access to the courts and quasi-judicial bodies and adequate legal assistance shall not be denied to any person by reason of poverty.
		Article XIII, Section 10: "Urban or poor dwellers shall not be evicted nor dwellings demolished, except in accordance with the law and in a just and humane manner. No resettlement of urban or rural dwellers shall be undertaken without adequate consultation and the communities where they are to be relocated."
	DPWH Memorandum Order (MO) 65	Land use procedures for public works and highway projects
	DPWH Memorandum Order (MO) 120	Private land compensation for the Ministry of Public Works projects
	DPWH Memorandum Order (MO) 234	Revision of private land compensation for the Ministry of Public Works projects
	Revised Administrative Regulation No. 64	Jurisdiction of court for private land confiscation by the government
	DPWH Memorandum Order (MO) 65 Series of 1983	Guidelines for land use and right-of-way (ROW)
	DPWH Land Acquisition, Resettlement, Rehabilitation and Indigenous Peoples Policy (LARRIPP) (March 2007)	The LARRIPP provides uniform standards in resettlement planning. It also contains safeguard instruments for indigenous peoples (IPs) affected by infrastructures implemented by DPWH and both foreign and locally funded. The LARRIPP contains policies related to involuntary resettlement, the legal basis for land acquisition and involuntary resettlement, compensation and entitlement, policy framework for IPs, implementation procedures that ensure grievances are appropriately acted upon, and measures to ensure public participation both during RAP preparation and implementation. The document also provides for internal and external monitoring of RAP implementation.
	Housing and Urban Development Act (1991)	Procedure for eviction of residents
Land Acquisition	R.A. 6389 (1971)	Provides for disturbance compensation to agricultural lessees equivalent to 5 times the average gross harvest in the last 5 years.
	Executive Order No. 1035 (1985)	Procedures of land acquisition for national development projects
	R.A. 7279 (1992) Urban Development and Housing Act	Provision of settlement site, and basic services and safeguards for the homeless and underprivileged citizens.
	R.A. 7835 (1994)	This describes the National Shelter Program Implementation/Resettlement Program. The National Housing Authority shall acquire land and develop it to generate serviced home lots for families displaced from sites earmarked for government infrastructure projects, those occupying danger areas such as waterways, railroad tracks and those qualified for relocation and resettlement under RA 7279.
	Administrative Order No. 50 (1999)	Guidelines of land acquisitions for public works
	R.A. 10752 (2016)	Facilitate the acquisition of Right-of-Way site or location for national government infrastructure projects
	Implementing Rules and Regulations of R.A. No. 10752 (2016)	The State shall ensure that all persons whose real property is affected by national government infrastructure projects promptly paid just compensation for the expeditious acquisition of the required ROW
Social Issues	Executive Order No. 153 (1999)	Instituting the National drive to suppress and eradicate professional squatting and squatting syndicates
Indigenous People	The Philippine Constitution (1987)	Article XII, Section 5: Rights protection of indigenous peoples
	Indigenous Peoples' Rights Act (IPRA) 1997	Consent is required from affected indigenous peoples before any land taking and/or relocation from their ancestral domain by the project.
	NCIP Administrative Order No. 1,	The Free and Prior Informed consent (FPIC) Guidelines of 2006

Table 3.1 Outline of Legal Framework of the Philippines

Item	Name	Outline
	Series of 2006	spells out the procedures for obtaining the Free and Prior Informed Consent for affected communities.
Gender	The Philippine Constitution (1987)	Article II, Section 14: It recognizes the role of women in nation-building, and shall ensure the fundamental equality before the law of women and men.
	R.A. 9710 and Implementing Rules and Regulations (series of 2010) known as the “Magna Carta of Women”	In regards to the rights of women: equal treatment before the law; protection from all forms of violence; participation and representation; equal access and elimination of discrimination against women in education, scholarships and training; equal rights in all matters related to marriage and family relations; comprehensive health services and health information & education; non-discrimination in employment; and other items.
	R.A. 7192	An Act Promoting the Integration of Women as full and Equal Partners of Men in Development and Nation Building and Other Purposes.
	The Harmonized Gender and Development Guidelines (2007)	This aim to provide a common set of analytical concepts and tools for integrating gender concerns into development programs and projects; and help achieve gender equity in, and empower women through projects and programs.

Source: Legislations of the Philippines, DPWH-LARRIPP

3.1.2 Basic National Policy

(1) The Philippine Constitution (1987)

Article III, Section 1: No person shall be deprived of life, liberty, or property without due process of law, nor shall any person be denied equal protection of the law.

Article III, Section 9: Private property shall not be taken for public use without just compensation.

(2) R.A. 10752, AN ACT FACILITATING THE ACQUISITION OF RIGHT-OF-WAY SITE OR LOCATION FOR NATIONAL GOVERNMENT INFRASTRUCTURE PROJECTS

As mentioned above, R.A. 10752 provides modes of acquiring real property through donation, negotiated sale, expropriation, or any other mode of acquisition as provided by law. (See Annex A for the full text of R.A. 10752.)

Donation: The implementing agency may utilize donation or similar mode of acquisition if the landowner is a government-owned or government-controlled corporation.

Negotiated Sale: The implementing agency shall offer to the property owner concerned, as compensation price, the sum of: (1) The current market value of the land, (2) The replacement cost¹ of structures and improvements therein; and (3) The current market value of crops and trees therein. To determine the appropriate price offer, the implementing agency may engage the services of a government financial institution with adequate experience in property appraisal, or an independent property appraiser accredited by the Bangko Sentral ng Pilipinas (BSP) or a professional association of appraisers recognized by the BSP to be procured by the

¹ IMPLEMENTING RULES AND REGULATIONS OF REPUBLIC ACT NO. 10752 states that the replacement cost of a structure or improvement affected by the ROW shall be based on the current market prices of materials, equipment, labor, contractors profit and overhead, and all other attendant costs associated with the acquisition and installation of a similar asset in place of the affected asset.

implementing under the provisions of Republic Act No. 9184, otherwise known as the “Government Procurement Reform Act” and its implementing rules and regulations pertaining to consulting services.

If the property owner does not accept the price offer, the implementing agency shall initiate expropriation proceedings. The property owner is given thirty (30) days to decide whether or not to accept the offer as payment for his property. Upon refusal or failure of the property owner to accept such offer or fails anchor refuses to submit the documents necessary for payments, the implementing agency shall immediately initiate expropriation proceedings.

Expropriation: Upon the filing of the complaint or at any time thereafter, and after due notice to the defendant, the implementing agency shall immediately deposit to the court in favor of the owner the amount equivalent to the sum of: One hundred percent (100%) of the value of the land based on the current relevant zonal valuation of the Bureau of Internal Revenue (BIR) issued not more than three (3) years prior to the filing of the expropriation complaint subject; The current market value of crops and trees located within the property as determined by a government financial institution or an independent property appraiser. Upon compliance with the guidelines abovementioned, the court shall immediately issue to the implementing agency an order to take possession of the property and start the implementation of the project. The court shall release the amount to the owner upon presentation of sufficient proofs of ownership.

In the event that the owner of the property contests the implementing agency’s proffered value, the court shall determine the just compensation to be paid the owner within sixty (60) days from the date of filing of the expropriation case. When the decision of the court becomes final and executory, the implementing agency shall pay the owner the difference between the amount already paid and the just compensation as determined by the court.

In case of lands granted through Commonwealth Act No. 141

In case of lands granted through Commonwealth Act No. 141, as amended, otherwise known as “The Public Land Act”, the implementing agency shall follow the provisions under Commonwealth Act No. 141, regarding acquisition of right-of-way on patent lands, if the landowner is the original patent holder or the acquisition of the land from the original patent holder is through a gratuitous title. If the government decides to exercise its right to use the ROW sprit preserved for public use within the land acquired under Commonwealth Act No. 141, the owner is required to execute a quit claim.

(A quit claim is explained as follows: A quit claim instrument is required to be executed by owners of lands acquired under the Public Land Act because of the reservation made in the issuance of patents or titles thereto. In other words, even if the title or free patent describes the whole area as owned by the patentee or title holders, by operation of the law, a strip of twenty

or sixty meters, as the case maybe, of that area described is not absolutely owned by him, because it is reserved by the government for public use. Hence, if the government should exercise its right to use the area reserved by it for public use, the owner shall be required to execute a quit claim over such area reserved and actually taken by the government for public use. This mode can be availed if the landowner is the original patent holder or the acquisition of the land from the original patent holder is through a gratuitous title, subject for the provision of Commonwealth Act No. 141² “Public Land Act” amended by Presidential Decree No. 635³. No payment shall be made for land acquired under the quit claim mode except for damages to improvements, and, if eligible, assistance with income restoration. However, if the landowner is not the original patent holder and any previous acquisition of said land is not through a gratuitous title, then this land is subject for other mode such as Donation, Negotiation.)

The implementing agency shall then take possession of the property affected by the ROW without any compensation to the owner for the land, but shall pay the owner the cost of the damages for the improvements within that land equivalent to their replacement cost.

Standards for the Assessment of the Value of the Property Subject to Negotiated Sale: In order to facilitate the determination of the market value of the property, the following relevant standards shall be observed:

- (a) The classification and use for which the property is suited;
- (b) The development cost for improving the land,
- (c) The value declared by the owners;
- (d) The current selling price of similar lands in the vicinity,
- (e) The reasonable disturbance compensation for the removal and demolition of certain improvements on the land and for the value of improvements thereon;
- (f) The size, shape or location, tax declaration and zonal valuation of the land;
- (g) The price of the land as manifested in the ocular findings, oral as well as documentary evidence presented; and
- (h) Such facts and events as to enable the affected property owners to have sufficient funds to acquire similarly situated lands of approximate areas as those required from them by the government, and thereby rehabilitate themselves as early as possible.

Relocation of Informal Settlers: The government, through the Housing and Urban Development Coordinating Council (HUDGC) and the National Housing Authority (NHA), in coordination with the LGUs and implementing agencies concerned, shall establish and develop

² Section 112 prescribes a twenty (20) meter strip of land reserved by the government for public use, with damages being paid for improvements only.

³ This amended Section 112 of CA 141 increasing the width of the reserved strip of twenty (20) meters to sixty (60) meters.

resettlement sites for informal settlers, including the provision of adequate basic services and community facilities, in anticipation of informal settlers that have to be removed from the right-of-way site or location of future infrastructure projects, pursuant to the provisions of Republic Act No. 7279, otherwise known as the “Urban Development and Housing Act of 1992”. Whenever applicable, the concerned LGUs shall provide and administer the resettlement sites.

(3) Other Applicable laws and Policies: Executive Orders, Administrative Orders, and Department Orders.

Commonwealth Act 141 Section 112 or Public Land Act:

- Prescribes a twenty (20) meter strip of land reserved by the government for public use, with damages being paid for improvements only.

Presidential Decree 635:

- Amended Section 112 of CA 141, the width of the reserved strip of twenty (20) meters to sixty (60) meters.

EO 1035:

- a. Financial assistance to displaced tenants, cultural minorities and settlers equivalent to the average annual gross harvest for the last 3 years and not less that PhP15, 000 per ha.
- b. Disturbance compensation to agricultural lessees equivalent to 5 times the average gross harvest during the last 5 years.
- c. Compensation for improvements on land acquired under Commonwealth Act 141.
- d. Government has the power to expropriate in case agreement is not reached.

MO 65, Series of 1983:

- a. Easement of ROW where the owner is paid the land value for the Government to use the land but the owner still retains ownership over the land.
- b. Quit claim where the Government has the right to acquire a 20 to 60 m width of the land acquired through CA 141. Only improvements will be compensated.

Republic Act 6389:

- Provides for disturbance compensation to agricultural lessees equivalent to 5 times the average gross harvest in the last 5 years.

3.2 JICA Policy for Resettlement

The key principle of JICA policies on involuntary resettlement is summarized below.

- (a) Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.
- (b) When, population displacement is unavoidable, effective measures to minimize the impact

and to compensate for losses must be agreed upon with the affected people.

- (c) People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels.
- (d) Compensation must be based on the full replacement cost⁴ as much as possible.
- (e) Compensation and other kinds of assistance must be provided prior to displacement.
- (f) For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. It is desirable that the resettlement action plan include elements laid out in the World Bank Safeguard Policy, OP 4.12, Annex A.
- (g) 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.
- (h) Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans.
- (i) Appropriate and accessible grievance mechanisms must be established for the affected people and their communities.

Above principles are complemented by World Bank OP 4.12, since it is stated in JICA Guideline that “JICA confirms that projects do not deviate significantly from the World Bank’s Safeguard Policies”. Additional key principle based on World Bank OP 4.12 is as follows.

- (a) Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advance of such benefits.
- (b) XI. Eligibility of Benefits include, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying.

⁴ Description of “replacement cost” is as follows.

Land	Agricultural Land	The pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of preparing the land to levels similar to those of the affected land, plus the cost of any registration and transfer taxes.
	Land in Urban Areas	The pre-displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes.
Structure	Houses and Other Structures	The market cost of the materials to build a replacement structure with an area and quality similar or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors’ fees, plus the cost of any registration and transfer taxes.

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- (c) XII. Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based.
 - (d) XIII. Provide support for the transition period (between displacement and livelihood restoration).
 - (e) XIV. Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.
 - (f) XV. For projects that entail land acquisition or involuntary resettlement of fewer than 200 people, abbreviated resettlement plan is to be prepared.

In addition to the above core principles of the JICA policy, it also laid emphasis on a detailed resettlement policy inclusive of all the above points; project specific resettlement plan; institutional framework for implementation; monitoring and evaluation mechanism; time schedule for implementation; and, detailed financial plan etc.

3.3 Gaps between JICA Guidelines and Laws of the Philippines on Resettlement

The DPWH prepared the LARRIPP based on the WB resettlement policy in 2007. Therefore, there are few gaps on the bases between the JICA Guidelines, WB OP 4.12 and the legislations of the Philippines as shown in Table 3.2. A gap is on the eligibility of PAFs without legal status so-called informal sector families (ISFs). They are only eligible for relocation to resettlement sites but not monetary compensation. In this respect, the ISFs are not shown compensation packages equivalent to the legally qualified people. However, RA7279 states that underprivileged and homeless citizens who have no real property and are residing in the danger areas without legal rights to land, qualify for the social housing program (resettlement). Meanwhile, RA7279 states that there is no eligibility for professional squatters including persons who have previously been awarded home lots or housing units by the Government and squatting syndicates.

In addition, Republic Act No. 10752 (2016) defines the compensation by the negotiated sale as one of the mode of acquiring real property. The project implementation agency shall offer to the property owner concerned as compensation price, the sum of: the current market value of the land; the replacement cost of structural and improvements, therein; and the current market value of crop and trees therein. In conjunction with this Republic Act, Implementing Rules and Regulations of R.A. No. 10752 (2016) shows land acquisition procedures that affected people are relocated after compensation paid. With these, the legal gaps have been further narrowed.

Table 3.2 Gaps between JICA Guidelines and Legislations of the Philippines

No.	JICA Guidelines	Laws/Guidelines/Policy, etc. of the Philippines	Gaps between JICA GL and the Philippines	Project Policy
1.	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. (JICA GL)	No person shall be deprived of life, liberty or property without due process of law, nor shall any person be denied equal protection of the law. (Article III, Section 1) Private property shall not be taken for public use without just compensation. (Article III, Section 9) "Consent" is required from affected indigenous peoples before any land taking and/or relocation from their ancestral domain by the project. (Indigenous Peoples' Rights Act (IPRA) 1997) Involuntary resettlement should be avoided where feasible. Where population displacement is unavoidable, it should be minimized by exploring all viable project options. (LARRIPP, 2007)	No significant gaps were identified from the principals of Constitution of the Philippines, and as the principals of DPWH LARRIPP includes the WB OP 4.12, although no laws to meet this item were found in the Philippines.	Follow JICA GL and LARRIPP
2.	When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken. (JICA GL)	Ditto	Ditto	Follow JICA GL and LARRIPP
3.	People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels. (JICA GL)	LGU and NHA provide a resettlement site with basic services and safeguards for the homeless and underprivileged citizens. (RA7279) As well as compensations for assets, the supports include disturbance compensation for agricultural land, income assistance for loss of business/income, inconvenience allowance, rehabilitation assistance (skills training and other development activities), rental subsidy, transportation allowance or assistance. (LARRIPP, 2007)	No significant gaps were identified, as RA7279 mandates the provision of resettlement site for informal settlers, and DPWH LARRIPP states the supports to restore the standard of living, income opportunities and production levels for the people who must be resettled involuntarily.	Follow JICA GL and LARRIPP
4.	Compensation must be based on the full replacement cost as much as possible. (JICA GL)	Implementing agency negotiates with the owner for the purchase of the property by offering first the current zonal value issued by the Bureau of Internal Revenue (BIR). In case an owner rejects the first offer, the agency renegotiates using the values recommended by the Appraisal Committee or Independent Land Appraiser. (RA8974) Compensation means payment in cash or in kind at replacement cost for an asset to be acquired or affected by an infrastructure project; and Replacement Cost is the amount necessary to replace the structure or	No significant gaps were identified, as RA10752 states that the project implementation agency shall offer to the property owner the current market value and the replacement cost for compensation price DPWH LARRIPP also states the compensation at the replacement cost.	Follow RA10752, JICA GL and LARRIPP

Table 3.2 Gaps between JICA Guidelines and Legislations of the Philippines

No.	JICA Guidelines	Laws/Guidelines/Policy, etc. of the Philippines	Gaps between JICA GL and the Philippines	Project Policy
		improvement based on the current market prices for materials according to RA8974 (2000). (LARRIPP, 2007) The project implementation agency shall offer to the property owner concerned as compensation price, the sum of: the current market value of the land; the replacement cost of structural and improvements, therein; and the market value of crop therein (RA10752, 2016)		
5.	Compensation and other kinds of assistance must be provided prior to displacement. (JICA GL)	Unless ROW is purchased, project notice of award to contractor cannot be issued. (DPWH D.O. No. 5, 2003) PAPs are relocated after payment as Procedures for ROW Acquisition Process. (Implementing Rules and Regulations of R.A. No. 10752, 2016)	No significant gaps were identified, as Implementing Rules and Regulations of R.A. No. 10752 shows PAPs are paid before relocation. Unless ROW is purchased, the construction is not started by DPWH D.O. No. 5.	Follow Implementing Rules and Regulations of R.A. No. 10752, JICA GL and DPWH D.O. No. 5,
6.	For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. (JICA GL)	Land Acquisition and Resettlement Action Plan (LAPRAP) shall be prepared for all projects, whether local or foreign funded, that will require ROW acquisitions. (DPWH D.O. No. 5, 2003) The LAPRAP document shall describe the project, expected impacts and mitigating measures, socio-economic profile of project affected persons (PAPs), compensation package, timetable of implementation, institutional arrangements, monitoring and evaluation arrangements, participation, consultation and grievance procedures. (DPWH D.O. No. 327, 2003) LARRIPP shall provide guidance to those preparing resettlement action plans (RAPs) and safeguards instrument for Indigenous Peoples (IPs) affected by infrastructure projects implemented by the DPWH, whether foreign or locally funded. (LARRIPP, 2007)	No significant gaps were identified, as DPWH DOs states that Land Acquisition and Resettlement Action Plan shall be prepared including participation, consultation and grievance procedures, although no laws to meet this item were found in the Philippines.	Follow JICA GL, DPWH DOs and LARRIPP
7.	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. (JICA GL)	Consultation meetings are conducted to describe project brief and concept of LAPRAP, and to seek comments and opinions. (IROW Procedural Manual, 2003) The information campaign will convey to all PAPs. (LARRIPP, 2007)	No significant gaps were identified, as DPWH LARRIPP states the information disclosure with consultation meetings, although no laws to meet this item were found in the Philippines.	Follow JICA GL and LARRIPP
8.	When consultations are held,	The information campaign will be	No significant gaps were	Follow JICA GL

Table 3.2 Gaps between JICA Guidelines and Legislations of the Philippines

No.	JICA Guidelines	Laws/Guidelines/Policy, etc. of the Philippines	Gaps between JICA GL and the Philippines	Project Policy
	explanations must be given in a form, manner, and language that are understandable to the affected people. (JICA GL)	carried out by PMO with support of ESSD, Regional and District Engineering Offices through community meetings with leaflets. The leaflets are printed in language understandable to PAPs and provide a statement of purpose, project details, and procedures of compensation programs. (LARRIPP, 2007)	identified, as DPWH LARRIPP states that information is disclosed in language understandable to PAPs, although no laws to meet this item were found in the Philippines.	and LARRIPP
9.	Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans. (JICA GL)	PAPs are involved in community meetings, and monitored internally by ESSD and externally by external monitoring agent which consists of a qualified/experienced individual or consultancy firm. (LARRIPP, 2007)	No significant gaps were identified, as DPWH LARRIPP states that PAPs are involved in community meetings, although no laws to meet this item were found in the Philippines.	Follow JICA GL and LARRIPP
10.	Appropriate and accessible grievance mechanisms must be established for the affected people and their communities. (JICA GL)	The PAPs will lodge their grievances by writing to the Resettlement Implementation Committee (RIC) for immediate resolution, and RIC and/or DPWH Regional Office (RO) deal with the grievances. If the complaint is not satisfactorily resolved, the PAP can file a legal complaint in any appropriate Court of Law. (LARRIPP, 2007)	No significant gaps were identified, as DPWH LARRIPP states that the grievance mechanisms are established, although no laws to meet this item were found in the Philippines.	Follow JICA GL and LARRIPP
11.	Affected people are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advantage of such benefits. (WB OP4.12 Para.6)	The Cut-off Date is the date of commencement of the census of affected families within the project boundaries. Persons not covered at the time of census-taking will not be eligible for claims of compensation entitlements. The concerned PAFs were physically residing in the affected structure and land at the time of the cut-off date. (LARRIPP, 2007)	No significant gaps were identified, as DPWH LARRIPP states that affected people are identified and recorded as early as possible with the census, although no laws to meet this item were found in the Philippines.	Follow WB OP4.12 and LARRIPP
12.	Eligibility of benefits includes, the PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), the PAPs who do not have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying. (WB OP4.12 Para.15)	The following persons are eligible. (LARRIPP, 2007) a. Landowners b. Users of arable land who have no land title or tax declaration c. Agricultural lessees Structure b. Owners of structures, including shanty dwellers, who have no land title or tax declaration or other acceptable proof of ownership. c. Renters The following persons who occupy danger areas without legal rights to	RA7279 states that informal settlers qualify for the socialized housing program, and DPWH LARRIPP states that the owners of structures without land title are eligible to the compensation. However, RA7279 states: There is no eligibility for "Professional squatters," individuals or groups who occupy lands without the express consent of the	Follow WB OP4.12 and LARRIPP

Table 3.2 Gaps between JICA Guidelines and Legislations of the Philippines

No.	JICA Guidelines	Laws/Guidelines/Policy, etc. of the Philippines	Gaps between JICA GL and the Philippines	Project Policy
		land qualify for the socialized housing program. (RA7279) a) Must be a Filipino citizen; b) Must be an underprivileged and homeless citizen, as defined in Section 3 of this Act; c) Must not own any real property whether in the urban or rural areas; d) Must not be a professional squatter or a member of squatting syndicates.	landowner and who have sufficient income for legitimate housing. The term shall also apply to persons who have previously been awarded home lots or housing units by the Government but who sold, leased or transferred the same to settle illegally in the same place or in another urban area, and non-bona fide occupants and intruders of lands reserved for socialized housing. And "Squatting syndicates," groups of persons engaged in the business of squatter housing for profit or gain. However, the term shall not apply to individuals or groups who simply rent land and housing from professional squatters or squatting syndicates.	
13.	Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. (WB OP4.12 Para.11)	Land swapping if feasible, 'land for land', will be provided in terms of a new parcel of land of equivalent market value, at a location acceptable under zoning laws, or a plot of equivalent value, whichever is larger, in a nearby resettlement area with adequate physical and social infrastructure. (LARRIPP, 2007)	No significant gaps were identified, as DPWH LARRIPP states that the land swapping will be provided if feasible, although no laws to meet this item were found in the Philippines.	Follow WB OP4.12 and LARRIPP
14.	Provide support for the transition period (between displacement and livelihood restoration). (WB OP4.12 Para.6)	The following assistances are provided. (LARRIPP, 2007) i) Disturbance Compensation for agricultural land severely affected the lessees are entitled to disturbance compensation. ii) Income assistance for loss of business/income iii) Inconvenience allowance iv) Rehabilitation assistance (skills training and other development activities) v) Rental Subsidy vi) Transportation allowance or assistance	No significant gaps were identified, as DPWH LARRIPP states that the assistances are provided for the transition period, although no laws to meet this item were found in the Philippines.	Follow WB OP4.12 and LARRIPP
15.	Particular attention must be paid to the needs of the vulnerable groups among those displaced,	The IPRA sets conditions, requirements, and safeguards for plans, programs, and projects affecting	No significant gaps were identified, as DPWH LARRIPP states the	Follow WB OP4.12 and LARRIPP

Table 3.2 Gaps between JICA Guidelines and Legislations of the Philippines

No.	JICA Guidelines	Laws/Guidelines/Policy, etc. of the Philippines	Gaps between JICA GL and the Philippines	Project Policy
	especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc. (WB OP4.12 Para.8)	<p>Indigenous Peoples. (Indigenous Peoples' Rights Act (IPRA), 1997)</p> <p>Indigenous Peoples Action Plan (IPAP) is written when an infrastructure project has been found through the social assessment to have potentially adverse effects on Indigenous Peoples, there is need to formulate an Indigenous Peoples Plan (IPAP).</p> <p>The women and elderly who are among the PAPs shall likewise be consulted and mobilized to participate in the consultation meeting, and discussed with them the socio-cultural implication of the Resettlement Action Plan. (LARRIPP, 2007)</p> <p>Socialized housing shall be the primary strategy in providing shelter for the underprivileged and homeless. (RA7279)</p>	attentions for women and elderly, although no laws to meet this item except for indigenous or poor peoples were found in the Philippines.	
16.	For projects that entail land acquisition or involuntary resettlement of fewer than 200 people, an abbreviated resettlement plan is to be prepared. (WB OP4.12 Para.25)	An Abbreviated Resettlement Action Plan (ARAP) is acceptable if fewer than 200 people are affected. It is also acceptable if more than 200 people are affected so long as all land acquisition is minor (10 percent or less of all holdings is taken) and no physical relocation is required. (LARRIPP, 2007)	No significant gaps were identified, as DPWH LARRIPP states that the Abbreviated Resettlement Action Plan (ARAP) is acceptable if fewer than 200 people are affected, although no laws to meet this item were found in the Philippines.	Follow WB OP4.12 and LARRIPP

Source: Legislations of the Philippines, JICA Study Team

3.4 Land Acquisition and Resettlement Policies for the Project

As mentioned above, there are some gaps between the JICA Guidelines/the World Bank Policies on Involuntary Resettlement and the laws of the Government of the Philippines. The gaps will be bridged by the adoption of good practices of the DPWH. Considering the LARRIPP, JICA Guidelines and the World Bank OP4.12, the project policies are proposed as follows.

Policy Principles:

- The Government of the Republic of Philippines is bound to follow the Project Resettlement Policy (the Project Policy) for the Cavite Industrial Area Flood Risk Management Project specifically which is intended to comply with JICA's guidelines.
- Where there are gaps between the Republic of Philippines legal framework for resettlement and JICA's Policy on Involuntary Resettlement, practicable mutually agreeable approaches will be designed consistent with Government practices and JICA's Policy.

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- Land acquisition and involuntary resettlement will be avoided where feasible, or minimized, by identifying possible alternative project designs that have the least adverse impact on the communities in the project area.
 - Where displacement of households is unavoidable, all PAPs (including communities) losing assets, livelihoods or resources will be fully compensated and assisted so that they can improve, or at least restore, their former economic and social conditions.

Entitlement:

- Compensation and rehabilitation support will be provided to any PAPs, that is, any person or household or business which on account of project implementation would have his, her or their standard of living adversely affected;
- Right, title or interest in any house, interest in, or right to use, any land (including premises, agricultural and grazing land, commercial properties, tenancy, or right in annual or perennial crops and trees or any other fixed or moveable assets, acquired or possessed, temporarily or permanently;
- Income earning opportunities, business, occupation, work or place of residence or habitat adversely affected temporarily or permanently; or
- Social and cultural activities and relationships affected or any other losses that may be identified during the process of resettlement planning.
- All affected people will be eligible for compensation and rehabilitation assistance, irrespective of tenure status, social or economic standing and any such factors that may discriminate against achievement of the objectives outlined above.
- Lack of legal rights to the assets lost or adversely affected tenure status and social or economic status will not bar the PAPs from entitlements to such compensation and rehabilitation measures or resettlement objectives provided that PAPs must comply to the criteria provided in the IRR of RA 10752 on Sec. 6.8 Owners of Structures and Improvements with no Rights to the Land.
- All PAPs residing, working, doing business and/or cultivating land within the project impacted areas as of the date of the latest census and inventory of lost assets (IOL), are entitled to compensation for their lost assets (land and/or non-land assets), at replacement cost, if available and restoration of incomes and businesses, and will be provided with rehabilitation measures sufficient to assist them to improve or at least maintain their pre-project living standards, income-earning capacity and production levels.
- PAPs that lose only part of their physical assets will not be left with a portion that will be inadequate to sustain their current standard of living. The minimum size of remaining land and structures will be agreed during the resettlement planning process.

- a. Severe: the portion of the land to be affected is more than 20 % of the total land area or even less than 20% if the remaining portion is no longer economically viable or it will no longer function as intended.
 - b. Marginal: PAPs who will lose less than 20% of their asset because of the ROW to be acquired for the project or if the remaining structure that is affected is still viable for continued use or occupancy.
- People temporarily affected are to be considered PAPs and resettlement plans address the issue of temporary acquisition.
 - Payment for land and/or non-land assets will be based on the principle of replacement cost.
 - Compensation for PAPs dependent on agricultural activities will be land-based wherever possible.
 - Resettlement assistance will be provided not only for immediate loss, but also for a transition period needed to restore livelihood and standards of living of PAPs. Such support could take the form of short-term jobs, subsistence support, salary maintenance, or similar arrangements.

Planning:

- Where a host community is affected by the development of a resettlement site in that community, the host community shall be involved in any resettlement planning and decision-making. All attempts shall be made to minimize the adverse impacts of resettlement upon host communities.
- The resettlement plans will be designed in accordance with Land Acquisition, Resettlement, Rehabilitation and Indigenous Peoples' Policy (LARRIPP) of DPWH (April, 2007) and JICA's Policy on Involuntary Resettlement.
- The Resettlement Plan will be translated into local languages and disclosed for the reference of PAPs as well as other interested groups.
- Adequate budgetary support will be fully committed and made available to cover the costs of land acquisition (including compensation and income restoration measures) within the agreed implementation period.
- The resettlement plan must consider the needs of those most vulnerable to the adverse impacts of resettlement (including the poor, those without legal title to land, ethnic minorities, women, children, elderly and disabled) and ensure they are considered in resettlement planning and mitigation measures identified. Assistance should be provided to help them improve their socio-economic status.

Public Involvement:

- PAPs will be involved in the process of developing and implementing resettlement plans.

- PAPs and their communities will be consulted about the project, the rights and options available to them, and proposed mitigation measures for adverse effects, and to the extent possible be involved in the decisions that are made concerning their resettlement.

Schedule:

- Displacement does not occur before provision of compensation and of other assistance required for relocation.
- Sufficient civic infrastructure must be provided in resettlement site prior to relocation.
- Acquisition of assets, payment of compensation, and the resettlement and start of the livelihood rehabilitation activities of PAPs, will be completed prior to any construction activities, except when a court of law orders so in expropriation cases
- Livelihood restoration measures must also be in place but not necessarily completed prior to construction activities, as these may be ongoing activities.
- Organization and administrative arrangements for the effective preparation and implementation of the resettlement plan will be identified and in place prior to the commencement of the process; this will include the provision of adequate human resources for supervision, consultation, and monitoring of land acquisition and rehabilitation activities.

Monitoring:

- Appropriate reporting (including auditing and redress functions), monitoring and evaluation mechanisms, will be identified and set in place as part of the resettlement management system.
- An external monitoring group will be hired by the project and will evaluate the resettlement process and final outcome. Such groups may include qualified consultants, NGOs, research institutions, or universities.
- Monitoring reports shall be forwarded directly to the JICA.

CHAPTER 4. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

There were households refused population census, asset survey and socio-economic survey. Thus, no information was obtained for these denial households and unvisited households. Furthermore, no information was obtained for the households who were absent be visited three times. Thus, in order to show the overall impact scale, the results of this study include in the estimation. Cut-off-dates are the start of the survey dates as General Trias: March 17, Kawit /Noveleta: March 18, Imus: March 25, 2016.

The RAP updates are scheduled at the time of the detailed design, among which the census and socio-economic surveys on the final project affected persons (PAPs) will be carried out based on the results of detailed design. The denial households and absentee households will be requested to provide necessary information for calculation of compensation amount and etc.

4.1 Affected Population

With the limitation of the survey as above, total number of households and population affected by the project were estimated in 877 households and 3,346 population as shown in Table 3.2.3. Among them, it was estimated that formal households were at 578 households, informal households were at 299 households, with 2,197 and 1,149 population for each.

Households identified were a total of 628 households, and the population total of 2,350 people. Among them, the formal households were at 417 households and informal households were at 211 households, with 1,553 people and 797 population for each. Informal households were assumed those who reside in public land, without right or permit of residence even in private land.

The number of households refused the survey and absent households were estimated as follows.

(A) Number of not identified households (refused and absentee) times average number of households per house equals number of households

(B) (A) times average number of household members equals population

(C) (A) times rate of informal households equals number of informal households

(D) (C) times average number of household members equals population of informal households

General Trias:

- Not identified households: 43 (absent: 36, refused: 7)
- Estimated households: 43 times 1.1 households per house equals 48 households
- Estimated population: 48 households times 4 persons per households equals 192

population

- Estimated informal household: 48 households times 24.1% equal 12 households
- Estimated population of informal household: 12 households times 4 persons equals 48 population

Noveleta:

- Not identified households: 80 (absent: 23, refused: 57)
- Estimated households: 80 times 1.2 households per house equals 96 households
- Estimated population: 96 households times 4 persons per households equals 384 population
- Estimated informal household: 96 households times 71.7% equal 69 households
- Estimated population of informal household: 69 households times 4 persons equals 276 population

Rosario:

- Not identified households: no survey allowed: 15
- Estimated households: 15 times 1.2 households per house equals 18 households
- Estimated population: 18 households times 4 persons per households equals 72 population
- Estimated informal household: 18 households times 37.8% equal 7 households
- Estimated population of informal household: 7 households times 4 persons equals 28 population

Table 4.1 Estimation of Impacts on Population

Municipality	Identified						Not identified		
	No. of PAFs			No. of PAPs			Absentee	Refused	Total
	Formal	Informal	Total	Formal	Informal	Total			
General Trias	93	28	121	358	120	478	36	7	43
Kawit	25	3	28	77	13	90	0	0	0
Noveleta	324	147	471	1,218	536	1,754	23	57	80
Imus	0	0	0	0	0	0	0	0	0
Rosario	62	33	95	248	128	376	0	15	15
Total	504	211	715	1,901	797	2,698	59	79	138

Municipality	Estimation					
	No. of PAFs			No. of PAPs		
	Formal	Informal	Total	Formal	Informal	Total
General Trias	36	12	48	144	48	192
Kawit	0	0	0	0	0	0
Noveleta	27	69	96	108	276	384
Imus	0	0	0	0	0	0
Rosario	11	7	18	44	28	72
Total	74	88	162	296	352	648

Municipality	Total					
	No. of PAFs			No. of PAPs		
	Formal	Informal	Total	Formal	Informal	Total
General Trias	129	40	169	502	168	670
Kawit	25	3	28	77	13	90
Noveleta	351	216	567	1,326	812	2,138
Imus	0	0	0	0	0	0
Rosario	73	40	113	292	156	448
Total	578	299	877	2,197	1,149	3,346

Note: Total households and population include estimation. Although one household was expected to be affected in Imus, since the household did not actually reside in the affected building locating in public land, the resident voluntarily removed the building because of the policy implemented by Imus City to clear the waterway to prevent flood.

Source: JICA Study Team

4.2 Assets

In the F/S, as land parcellary survey has not been implemented, and cadastral maps were not available, the affected land area was measured by CAD on a map. In addition, for the household refused the survey, those whom buildings were studied on the satellite photo, observed from outside the premises, and those numbers were counted and types of buildings were studied on the sites. Therefore, the improvements and trees belong to those buildings were not identified.

4.2.1 Land

The area of project affected lands is summarized in Table 4.2, which was total 515,476 square meters, about 51.5 hectares.

Table 4.2 Affected Land

Location (Town/City)	No.	Land Type	Affected (m ²)	Total (m ²)
General Trias	1	Residential	74,170	193,331
	2	Commercial	11,537	
	3	Agricultural land/Grassland) (Raw	107,624	
Imus	4	Residential	11,539	11,539
Kawit	5	Residential	7,908	7,908
Noveleta	6	Residential	58,422	229,939
	7	Commercial	6,703	
	8	Agricultural land/Grassland) (Raw	137,251	
	9	Cemetery	27,563	
Rosario	10	Residential	18,904	72,759
	11	Commercial	1,586	
	12	Agricultural land/Grassland) (Raw	52,269	
Total Project Affected Lands	13	Residential	170,943	515,476
	14	Commercial	19,826	
	15	Agricultural land/Grassland) (Raw	297,144	
	16	Cemetery	27,563	

Source: JICA Study Team

4.2.2 Building

The number of project affected buildings is summarized in Table 4.3 which shows total 828 affected building were identified. Among them, 766 buildings were severely affected⁵ and 62 buildings were marginally affected⁶. (Table 13.3 summarizes the number of affected buildings with category of severe or marginal impact.) Meanwhile, 499 buildings were surveyed and 329 buildings were not surveyed. Those whom buildings were studied on the satellite photo, and observed from outside the premises on the sites.

⁵ More than 20% of the total landholding lost or where less than 20% lost but the remaining land holding become economically unviable.

⁶ Less than 20% of the total landholding lost or where the remaining structure can still function and is viable for continued use.

Table 4.3 Affected Buildings

Location (Town/ City)	No.	Use of Building	Type of Building				Total	
			Shanty/ Light Materials	Predomi- nantly Wooden	Semi-Perm- anent (comb. Wooden & Concrete)	Permanent (Concrete)		Not Clear
General Trias	1	Residential Single-story	1	26	8	80		115
	2	Residential 2 or more stories	1	7	6	11		25
	3	Commercial Single-story		1				1
	4	Commercial 2 or more stories				1		1
	5	Institutional/Public						0
	6	Chapel						0
	7	Others (Residential/Others but Discrete Inspection Only)						0
			Total	2	34	14	92	0
Imus	1	Residential Single-story						0
	2	Residential 2 or more stories						0
	3	Commercial Single-story				1		1
	4	Commercial 2 or more stories						0
	5	Institutional/Public				1		1
	6	Chapel						0
	7	Others (Residential/Others but Discrete Inspection Only)						0
			Total	0	0	0	2	0
Kawit	1	Residential Single-story		3	6	18		27
	2	Residential 2 or more stories			1	1		2
	3	Commercial Single-story						0
	4	Commercial 2 or more stories						0
	5	Institutional/Public				1		1
	6	Chapel				1		1
	7	Others (Residential/Others but Discrete Inspection Only)						0
			Total	0	3	7	21	0
Noveleta	1	Residential Single-story	1	105	36	118		260
	2	Residential 2 or more stories		13	29	19		61
	3	Commercial Single-story				1		1
	4	Commercial 2 or more stories						0
	5	Institutional/Public				1		1
	6	Chapel		1				1
	7	Others (Residential/Others but Discrete Inspection Only)					221	221
			Total	1	119	65	139	221
Rosario	1	Residential Single-story						0
	2	Residential 2 or more stories						0
	3	Commercial Single-story						0
	4	Commercial 2 or more stories						0
	5	Institutional/Public						0
	6	Chapel						0
	7	Others (Residential/Others but Discrete Inspection Only)					108	108
			Total	0	0	0	0	108
Total Project Affected Buildings	1	Residential Single-story	2	135	50	216	0	402
	2	Residential 2 or more stories	1	20	36	31	0	88
	3	Commercial Single-story	0	1	0	2	0	3
	4	Commercial 2 or more stories	0	0	0	1	0	1
	5	Institutional/Public	0	0	0	3	0	3
	6	Chapel	0	1	0	1	0	2
	7	Others (Residential/Others but Discrete Inspection Only)	0	0	0	0	329	329
			Total	3	157	86	254	329

Source: JICA Study Team

4.2.3 Improvements and Trees

The project affected improvements and trees are summarized in Table 4.4, which were total 73 improvements and 929 trees with the 499 buildings surveyed.

Table 4.4 Affected Improvements and Trees

Location (Town/City)	No.	Type of Improvement	Quantity	Trees
General Trias	1	Fence	5	536
	2	Shed/Waiting Shed	8	
	3	Pigpen/Chicken Pen/Animal House	10	
	4	Toilet/Comfort Room	7	
	5	Storeroom/Bodega/Warehouse	4	
	6	Slaughter House	1	
	7	Garage	4	
	8	Kitchen	7	
	9	Motor pool	1	
	10	Nipa Hut	1	
	11	Store (Retail/Sari-Sari)	2	
	12	Multi-Purpose Structure	1	
	13	Pond	1	
		Sub-Total		
Imus	1	Pump house	4	22
		Sub-Total		
Kawit	1	Pigpen	1	157
		Sub-Total		
Noveleta	1	Shed/Waiting Shed	1	214
	2	Pigpen/Chicken Pen	3	
	3	Toilet/Comfort Room	5	
	4	Garage	1	
	5	Junk Shop	1	
	6	Billiards House	2	
	7	Nipa Hut	1	
	8	Multi-Purpose Structure	1	
	9	Motor pool/Talyer	1	
	Sub-Total		16	
	Total		73	929

Source: JICA Study Team

4.2.4 Graves

In the Noveleta public cemetery, there were graves affected by the project as 56 graves of shelter type (surrounded by roof and wall), 459 graves of coffin type which are placed independently, and 69 graves of the aggregated coffin type that several coffins are stacked.

CHAPTER 5. SOCIO-ECONOMIC CONDITIONS OF AFFECTED HOUSEHOLDS

The socio-economic conditions of project affected households were studied based on the information of 715 households who were interviewed in the population and socio-economic surveys.

5.1 Characteristics of the Household Head

5.1.1 Gender

The gender rates of household heads in the area were 62% for male and 38% for female. Especially in Kawit and General Trias, the ratios of female household head were rather higher at 43% and 45%.

Table 5.1 Distribution of Household Head by Gender

Gender	Kawit		General Trias		Noveleta		Rosario		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male	16	57	67	55	290	62	71	75	444	62
Female	12	43	54	45	181	38	24	25	271	38
Total	28	100	121	100	471	100	95	100	715	100

Source: JICA Study Team

5.1.2 Age Structure

Regarding the age structure of household heads in the area, 41-50 year-old group was the highest at 21%. As this is the apex, the ratios were lower by younger and older age groups. However, the age group of 61 and above-year-old was high at 29% in Kawit.

Table 5.2 Age Structure of Household Head

Age Range	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
20 and below			0	0	42	10	42	7
21-30	3	11	17	14	49	11	69	12
31-40	4	14	26	21	94	22	124	21
41-50	8	29	35	29	82	19	125	21
51-60	5	18	24	20	69	16	98	17
61 and above	8	29	18	15	56	13	82	14
No answer			1	1	44	10	45	8
Total	28	100	121	100	436	100	585	100

Source: JICA Study Team

5.1.3 Educational Attainment

The most common educational attainment of household heads was high school graduate at 36%, followed by 13% in elementary school graduate. In General Trias, high school graduate had relatively higher at 40%. However, there was no significant difference in the structure of the educational attainment in Kawit and Noveleta.

Table 5.3 Educational Attainment of Household Head

Educational Attainment	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
No formal education	1	4	2	2	2	0	5	1
Pre-school			0	0	29	7	29	5
Elementary undergraduate	6	21	13	11	35	8	54	9
Elementary graduate	5	18	19	16	54	12	78	13
High school undergraduate	1	4	10	8	20	5	31	5
High school graduate	9	32	48	40	153	35	210	36
Vocational/Technical	1	4	8	7	32	7	41	7
College undergraduate	3	11	6	5	22	5	31	5
College graduate	1	4	13	11	59	13	73	12
Post-graduate			1	1	1	0	2	0
No answer	1	4	1	1	32	7	34	6
Total	28	100	121	100	439	100	588	100

Source: JICA Study Team

5.1.4 Place of Origin

In the place of origin, 44% of the household heads originated from outside of Cavite Region, Manila, Luzon, other outside of Luzon, which was higher than those of the province. In Kawit and General Trias, the household heads originated within the same barangay were at 39% respectively and 31%, which were higher than those of Noveleta.

Table 5.4 Place of Origin of Household Head

Place of Origin	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Within the Barangay	11	39	38	31	108	25	157	27
Other Barangay within the municipality/city	3	11	7	6	21	5	31	5
Other municipality/City of Cavite	9	32	16	13	65	15	90	15
Metro Manila			6	5	31	7	37	6
Luzon	2	7	26	21	66	15	94	16
Others (Outside Luzon)	3	11	27	22	99	23	129	22
No answer			1	1	49	11	50	8
Total	28	100	121	100	439	100	588	100

Source: JICA Study Team

5.1.5 Occupation and Income Source of Household Head

There were many types of main occupations and income sources of the household heads. Those of rather higher ratios were personal business, Tricycle/Jeepney driver, skilled laborer and unskilled laborer. The gender composition of the occupation and income sources of household heads was at 63% for male and 37% for female.

Table 5.5 Occupation and Income Source of Household Head

Occupation	Kawit		General Trias		Noveleta		Rosario		Total		Male		Female	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Farmer	3	11	2	2	1	0	0	0	6	1	5	2	1	1
Hired farm worker			2	2	1	0	0	0	3	1	3	1	0	0
Fisherman			0	0	4	1	7	8	11	2	10	4	1	1
Skilled laborer	2	7	17	14	25	9	5	5	49	9	34	13	14	9
Unskilled laborer	1	4	15	13	16	6	3	3	35	7	23	9	11	7
Professional employee	1	4	2	2	6	2	21	23	30	6	22	9	5	3
Professional practice			0	0	1	0	0	0	1	0	0	0	1	1
Business operator			4	3	3	1	6	6	13	2	9	4	3	2
Housekeeper	2	7	12	10	31	11	4	4	49	9	5	2	23	16
OFW	3	11	4	3	2	1	3	3	12	2	7	3	4	3
Government employee	2	7	5	4	1	0	5	5	13	2	12	5	0	0
Tricycle/Jeepney driver	2	7	12	10	31	11	10	11	55	10	52	20	2	1
Personal business	8	29	24	20	31	11	18	19	81	15	35	14	45	30
Pensioner	2	7	2	2	8	3	2	2	14	3	0	0	5	3
Others			8	7	45	16	3	3	56	11	30	12	23	16
None	1	4	11	9	0	0	5	5	17	3	8	3	10	7
No answer	1	4	0	0	83	29	1	1	85	16	1	0	0	0
TOTAL	28	100	120	100	289	100	93	100	530	100	256	100	148	100

Source: JICA Study Team

5.1.6 Land Tenure Status

55% of respondents answered that they owned land.

Table 5.6 Land Tenure

Item	Kawit		General Trias		Noveleta		Rosario		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Ownership:										
Private	27	96	97	80	332	72	57	63	513	74
Public	1	4	14	12	100	22	38	42	153	22
No answer			10	8	26	6	0	0	36	5
Total	28	100	121	100	458	100	90	100	697	100
Tenure:										
Owner	14	50	59	49	285	63	27	30	385	55
Tenant/rent	3	11	13	11	20	4	29	32	65	9
Free Occupation with Permit	4	14	14	12	63	14	33	37	114	16
Free Occupation without Permit			4	3	63	14	5	6	72	10
Sharer	7	25	1	1	3	1	0	0	11	2
Caretakers/others			30	25	7	2	1	1	38	5
Unclassified				0	14	3	0	0	14	2
Total	28	100	121	100	455	100	90	100	694	100

Source: JICA Study Team

5.2 Characteristics of Household

5.2.1 Household Size

The average household sizes of Kawit, General Trias and Noveleta were three, four, are four people for each, and the most common household size range was 3-4 people. However, smaller household size of 1-2 people was the highest in Kawit at 43%.

Table 5.7 Household Size

Household Size Range	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1-2	12	43	28	24	53	21	93	23
3-4	8	29	49	41	90	36	147	37
5-6	6	21	30	25	54	21	90	23
7-8	2	7	10	8	15	6	27	7
9-10			2	2	9	4	11	3
11-12					2	1	2	1
>12					1	0	1	0
No Information					29	11	29	7
Total	28	100	119	100	253	100	400	100
Average Household Size		3		4		4		

Source: JICA Study Team

5.2.2 Household Composition by Gender

The gender rates of household members in the area were 49% for male and 51% for female. The male ratios of Kawit and Noveleta were higher than the female ratio, and the female ratio of General Trias was higher than the male ratio.

Table 5.8 Distribution of Household Members by Gender

Gender	Kawit		General Trias		Noveleta		Rosario		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Male	48	57	220	47	782	49	206	52	1,256	49
Female	42	43	253	53	803	51	190	48	1,288	51
Total	90	100	473	100	1,585	100	396	100	2,544	100

Source: JICA Study Team

5.2.3 Age Structure of Household Members

Regarding the age structure of household members in the area, 20 and below year-old group was the highest at 44%. As this is the apex, the ratios became lower by older age groups.

Table 5.9 Age Structure of Household Members

Age Range	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
20 and below	32	36	200	43	453	46	685	44
21-30	13	14	83	18	170	17	266	17
31-40	13	14	57	12	151	15	221	14
41-50	12	13	60	13	102	10	174	11
51-60	9	10	33	7	66	7	108	7
61 and above	11	12	35	7	42	4	88	6
No answer			0	0	4	0	4	0
Total	90	100	468	100	988	100	1,546	100

Source: JICA Study Team

5.2.4 Educational Attainment of Household Members

The most common educational attainment of household members was high school graduate at 24%, followed by 21% in elementary school graduate. Furthermore, the enrollment status of household members of school age (6-21 years-old age) showed that the enrolled students were at 58% and not enrolled persons were at 42%.

Table 5.10 Educational Attainment of Household Members

Educational Attainment	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
No formal education			7	1	16	2	23	1
Not of school age	8	9	39	8	58	6	105	7
Pre-school	1	1	10	2	40	4	51	3
Elementary undergraduate	18	20	96	20	215	21	329	21
Elementary graduate	8	9	33	7	59	6	100	6
High school undergraduate	9	10	74	16	222	21	305	18
High school graduate	23	26	126	27	230	22	379	24
Vocational/Technical	3	3	17	4	19	2	39	2
Certificate course			3	1	7	1	10	0
College undergraduate	10	11	26	5	61	6	97	6
College graduate	9	10	39	8	50	5	98	6
Post-graduate			1	0	0	0	1	0
No answer	1		2	0	56	5	59	4
Total	90	100	473	100	1033	100	1,596	100

Source: JICA Study Team

Table 5.11 Educational Enrollment of School Age Household Members

Status	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Enrolled	20	77	123	76	282	51	425	58
Not Enrolled	6	23	43	27	310	57	359	42
Total	26	100	161	100	548	100	784	100

Source: JICA Study Team

5.2.5 Occupation and Income Source of Household Members

There were many types of main occupations and income sources of the household members. Those of rather higher ratios were personal business, Tricycle/Jeepney driver, skilled laborer and unskilled laborer as well as household heads. The gender composition of the occupation and income sources of household members was at 57% for male and 43% for female.

Table 5.12 Occupation and Income Source of Household Members

Occupation	Kawit		General Trias		Noveleta		Total		Male		Female	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Farmer	3	6	4	2	4	1	11	1	9	2	2	1
Hired farm worker			1	0	1	0	2	0	2	1	0	0
Fisherman			0	0	8	2	8	2	4	1	4	1
Skilled laborer	8	17	58	29	62	14	128	14	85	22	42	14
Unskilled laborer	4	9	40	20	72	17	116	17	65	17	50	17
Professional employee			1	0	11	2	12	2	5	1	4	1
Professional practice	1	2	12	6	3	1	16	1	9	2	7	2
Business operator	1	2	1	0	7	2	9	2	6	2	2	1
Housekeeper			0	0	51	7	51	7	3	1	28	10
OFW	5	11	5	2	6	1	16	1	7	2	8	3
Government employee	3	6	8	4	2	0	13	0	10	3	3	1
Tricycle/Jeepney driver	8	17	17	8	52	12	77	12	75	20	1	0
Personal business	12	26	40	20	71	16	123	16	39	10	83	29
Pensioner	2	4	5	2	8		15		1	0	6	2
Others			9	4	106	24	115	24	62	16	50	17
TOTAL	47	100	201	100	464	100	712	100	382	100	290	100

Source: JICA Study Team

5.2.6 Monthly Household Income

The most common monthly income range was under Php 10,000 in Kawit, General Trias, Noveleta and Rosario. In the range of under Php 15,000, those whom ratios were from 60% to 80% among them. The average monthly incomes were at Php 14,261, Php 15,175 and Php 11,192 in Kawit, General Trias and Noveleta.

On the other hand, according to the National Statistical Coordination Board (NSCB), Per Capita Poverty Threshold in Region IV-A, 2012 is Php 19,137 per person per year, which corresponds to Php 1,595 per person per month. If per household poverty threshold is calculated at this Php 1,595 per person per month, Php 4,785, Php 6,380, Php 6,380 per household per month is calculated at 3, 4, 4 persons per household in Kawit, General Trias and Noveleta. The average household monthly incomes of them were higher than these amounts, however, 40%-50% of households were below Php 10,000. It is assumed that there were households below or on the poverty line.

Table 5.13 Monthly Household Income

Monthly Income Range	Kawit		General Trias		Noveleta		Rosario		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
10,000 or less	12	52	48	41	168	42	54	59	282	44
10,001-15000	6	26	28	24	64	16	15	16	113	18
15,001-20,000	2	9	11	9	34	8		0	47	7
20,001-25000	2	9	1	1	10	2		0	13	2
25,001-30,000			9	8	9	2		0	18	3
30,001-35,000			3	3	1	0		0	4	1
35,001-40,000			0	0	3	1		0	3	0
40,001-45,000			0	0	1	0	1	1	2	0
45,001-50,000	1	4	3	3	5	1		0	9	1
More than 50,000			4	3	2	0		0	6	1
No answer	5		11	9	106	26	22	24	144	22
Total	28	100	118	100	403	100	92	100	641	100

Source: JICA Study Team

5.2.7 Access to Basic Utilities

80% of households were electrified, and 54 % of households had water supply from the water systems of piped and pump well. Regarding toilet facility, 66% of households used semi-flush or pit latrine type, and 70% of households used LPG for cooking fuel.

Table 5.14 Access to Basic Utilities

Utilities	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Energy Source								
Electric	28	100	94	78	374	82	496	82
Kerosene			0	0	35	8	35	6
Generator			1	1	0	0	1	0
Battery			2	2	1	0	3	0
Solar			20	17	2	0	22	4
None			2	2	1	0	3	0
No answer			2	2	42	9	44	7
Total			121	100	455	100	604	100
Water system								
Rain water	1	4	0	0	0	0	1	0
Open well			2	2	0	0	2	0
Pump well	8	29	29	24	53	12	90	15
Piped water	15	54	67	55	156	34	238	39
Deep well	3	11	16	13	105	23	124	20
Others			3	2	3	1	6	1
None			4	3	0	0	4	1
No answer	1	4	0	0	139	30	140	23
Total	28	0	121	100	456	100	605	100
Toilet facilities								
Open pit			10	8	20	4	30	5
Antipolo	4	14	1	1	94	21	99	16
Semi-flush	14	50	82	68	206	45	302	50
Flush	6	21	21	17	75	16	102	17
None	1	4	7	6	9	2	17	3
No answer	3	11	0	0	51	11	54	9
Total	28	100	121	100	455	100	604	100
Cooking fuel								
Wood	6	21	21	17	51	11	78	13
Charcoal			0	0	12	3	12	2
LPG	21	75	92	76	308	68	421	70
Kerosene			4	3	39	9	43	7
Super kalan			2	2	6	1	8	1
No answer	1	4	2	2	38	8	41	7
Total	28	100	121	100	454	100	603	100

Source: JICA Study Team

5.2.8 Length of Stay in the Current Residence

Higher ratios of length of stay ranges were totally divided into over 25 years and less than 10 years. In Kawit, the households in over 25 years were the most at 39%. In General Trias, the households in over 25 years were at 27%, and the other ranges were distributed almost evenly. In Noveleta, the length of stay less than 10 years was at 39%.

Table 5.15 Length of Stay in the Current Residence

Length of Stay (Years)	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1 or less	2	7	8	7	12	3	22	4
2-5	7	25	20	17	59	13	86	15
6-10	2	7	18	15	99	23	119	20
11-15	1	4	15	12	19	4	35	6
16-20	4	14	18	15	19	4	41	7
21-24	1	4	6	5	18	4	25	4
25 or more	11	39	33	27	166	38	210	36
No answer			3	2	48	11	51	9
Total	28	100	121	100	440	100	589	100

Source: JICA Study Team

5.3 Awareness, Perception and Attitude of the Project and Resettlement

5.3.1 Awareness of the Project

57% of the respondents were aware of the project. Furthermore, for the opinions to the project, 56% of the respondents were answered "good" and "very good".

Table 5.16 Awareness and Attitude to the Project

Item	Kawit		General Trias		Noveleta		Rosario		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Are you aware of the project?										
Yes	16	57	73	60	177	59	43	46	309	57
No	12	43	48	40	99	33	48	51	207	38
No Answer					23	9	3	3	26	5
Total	28	100	121	100	299	101	94	100	542	100
What do you think of the project?										
Very good	5	18	56	48	53	21			114	29
Good	5	18	22	19	80	32			107	27
Fair	5	18	15	13	25	10			45	11
Poor	9	32	10	9	32	13			51	13
No idea	4	14	13	11	21	8			38	10
No Answer			0	0	42	17			42	11
Total	28	100	116	100	253	100			397	100

Source: JICA Study Team

5.3.2 Attitude to Resettlement

65% of respondents answered "Yes" or "Yes, depends on the condition" to "If the project necessitates resettlement of the affected households, would you consider or agree to be relocated?".

Table 5.17 Attitude to Resettlement

Item	Kawit		General Trias		Noveleta		Rosario		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Yes	7	25	51	43	94	37	32	34	184	37
Yes, depends on the condition	10	36	31	27	96	38			137	28
No, but can be considered					7	3			7	1
No	6	21	29	25	67	9			102	12
No idea	4	14	5	4	5	2	3	3	17	3
No answer	1	4	1	1	46	12	59	62	107	18
Total	28	100	117	100	315	100	94	100	554	100

Source: JICA Study Team

5.4 Relocation and Income Restoration Option

5.4.1 Preferred Relocation Type

39% of the respondents, the largest portion, answered “Same barangay” as an answer to “If you are asked to relocate, what is your preferred site?”. Other respondents also preferred the neighboring area. For the type of relocation, 28% of respondents, the largest portion, answered “Resettlement on government sponsored site”, followed by “Self-relocation with project assistance” at 27%.

Table 5.18 Preferred Relocation Type

Item	Kawit		General Trias		Noveleta		Rosario		Total		FSF		ISF	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
If you are asked to relocate, what is your preferred site?														
Same barangay	15	54	54	45	93	37	29	32	191	39	122	38	69	43
Nearby barangay		0	10	8	34	13		0	44	9	27	8	17	11
Within the city	2	7	12	10	44	17		0	58	12	38	12	17	11
Nearby towns		0	1	1	18	7	5	5	24	5	15	5	8	5
On own land elsewhere		0		0	2	1	1	1	3	1	2	1	0	0
Set back in the same land		0		0	1	0		0	1	0	0	0	1	1
Others	1	4	4	3	14	6		0	19	4	14	4	5	3
No idea		0	3	3		0		0	3	1	0	0	3	2
No answer	10	36	35	29	48	19	56	62	149	30	109	33	40	25
Total	28	100	119	100	254	100	91	100	492	100	327	100	160	100
If you are to be relocated, what type of relocation do you prefer?														
Self-relocation with project assistance	8	29	29	25	89	35	6	7	132	27	103	32	29	18
Group relocation with project assistance	2	7		0	10	4	23	26	35	7	11	3	24	15
Resettlement on government sponsored site	8	29	42	36	89	35		0	139	28	83	25	56	35
Others		0	2	2	18	7	4	4	24	5	22	7	2	1
No idea		0	4	3		0	1	1	5	1	0	0	5	3
No answer	10	36	39	34	47	19	56	62	152	31	108	33	44	28
Total	28	100	116	100	253	100	90	100	487	100	327	100	160	100

Source: JICA Study Team

5.4.2 Preferred Assistance for Livelihood and Income Restoration

Although limited respondents answered, 40% of respondents had interested in “Skill development training”, and 29% of respondents had interested in “Entrepreneurship development assistance”

Table 5.19 Preferred Assistance for Livelihood and Income Restoration

Item	Kawit		General Trias		Noveleta		Rosario		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
What are the preferred assistance for livelihood and income restoration?										
Entrepreneurship development assistance	5	18	15	19	29	21	48	53	96	29
Skill development training	3	11	27	32	73	54	32	36	134	40
Access to financing institution	3	11	2	2	2	1	12	13	19	6
Cooperative development assistance	2	7	3	4	3	2	6	7	14	4
Job referral/placement	1	4	1	1	10	7	35	39	47	14
Others	2	7	2	2	22	13		0	22	7
None	3	11	7	9			2	2	12	4
No answer	11	39	30	37			12	13	53	16
Total respondent	28		81		139		90		333	
Multiple answered total	30		86		139		237		397	

Note: Multiple response

Source: JICA Study Team

5.4.3 Skill and Business Interest and Training Needs

40% of households with employable members answered that they had interested in skill and business and training needs. Specifically, preferred skill training were cooking/food-related/baking, welding/construction/electrician, business and clothing. Preferred businesses were retail store, personal business, food-related as the majority, and other minor items were cosmetology, soap making, computer programming, online business, etc.

Table 5.20 Skill and Business Interest and Training Needs

Item	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Yes	7	25	42	36	110	43	159	40
No	11	39	36	31	83	33	130	33
No answer	10	36	38	33	60	24	108	27
Total	28	100	116	100	253	100	397	100

Source: JICA Study Team

Table 5.21 Preferred Skill Training and Business

Item	Kawit	No.	General Trias	No.	Noveleta	No.
Preferred skill training	Tailoring	1	Cooking, Baking	4	Cooking/food-related	32
	Electronics	1	Automotive	3	Welding/construction/ electrician	17
	Sewing	1	Welding	3	Business	23
			Dressmaking/sewing	3	Sewing	29
			Stitching	3	Other livelihood	29
			Electronics	2		
			Computer programming	1		
			Cosmetology	1		
			Fruit vendor	1		
			Vendor	1		
			Entrepreneurship	1		
			Nursing	1		
			Technician	1		
		TESDA Course	1			
Preferred business	Carinderia	1	Sari-sari store	1	Retail store	40
	Food vending	1	Vendor	1	Livelihood business	28
	Online business	1	Water station	1	Food stall	9
	Soap making,	1	Furniture	1	Others	29
	Sari-sari store	1	Retailing	1		
			Cooking	1		
			Carinderia	1		

Source: JICA Study Team

5.5 Vulnerable Households

Mostly half (46%) of households had vulnerable persons as shown in Table 5.22. In particular, female-headed household was the majority at 32.5%.

Table 5.22 Vulnerable Households

Item	Kawit		General Trias		Noveleta		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Landless	1	3.6			3	0.8	4	0.7
Household with Elderly Head	5	17.9	7	6.0	27	6.9	39	7.2
Female-headed Household	12	42.9	52	44.8	111	28.2	175	32.5
Solo-Parent Household					8	2.0	8	1.5
Child-headed Household					11	2.8	11	2.0
Household belonging to Indigenous Group			4	3.4	2	0.5	6	1.1
Household with physically or mentally disabled members	2	7.1	3	2.6			5	0.9
None	8	28.6	50	43.1	232	58.9	291	54.0
Total	28	100.0	116	100.0	394	100.0	539	100.0

Source: JICA Study Team

5.6 Fishing Activity

According to the Municipal Agriculture Office of Noveleta LGU, no fishery was running near the mouth of the San Juan Diversion Channel. Meanwhile, on the west side of the river mouth of the channel, there is a berth facility of fishing bunker boats, which is used by approximately 500 small fishing bunker boats (for 2 to 3 persons). These are mainly used for coastal fishery to catch sardines in Rosario. Many of them are processed to dried fish and sold in neighboring areas.

In the Project, the alignment of San Juan Diversion Channel was planned to avoid the facility by designing the alignment to the east side, and to consider adverse impact on the fishermen as much as

possible. Although several fishing bunker boats were put on the sandbar on the west side of the mouth, DENR recommended them to moor in the fishing boat berth.

CHAPTER 6. MEASURES OF COMPENSATION AND SUPPORTS

6.1 Compensation for Losses

6.1.1 Eligibility

The persons who are residing, doing businesses, cultivating land, or using other resources within the project area as of the census survey date will be eligible for compensation and/or other rehabilitation programs, regardless of their tenure statuses. Those include lessees who cannot verify the legal rights and claims for land occupied, traders, workers and employees. The resettlement assistance is extended to the informal settlers if they are underprivileged and homeless Filipino citizens who do not own any real property, whether in urban or rural areas pursuant to RA 7279, the Urban Development and Housing Act (UDHA).

However, professional squatters and members of squatting syndicates, who exploit the compensation to aim at profits, are not eligible for any compensation and resettlement assistances. Individuals or groups who simply rent land and housing from professional squatters or squatting syndicates are excluded from them.

6.1.2 Entitlement

The affected assets are compensated with reference to RA 10752. Entitlements were studied as follows with consideration for the LARRIPP as the basic frame.

Land:

- Eligibility: PAPs with Transfer Certificate of Title (TCT) or Tax Declaration (TD) (Tax declaration can be legalized to full title), Holders of Certificates of Land Ownership Award (CLOA) granted under the Comprehensive Agrarian Reform Act
- Entitlement: Cash compensation for loss of entire land at the current market value, If feasible, land for land will be provided in terms of a new parcel of land of equivalent value or productivity, at a location acceptable to PAPs, Cash compensation for damaged crops at the current market value, Rehabilitation assistance in the form of skills training equivalent to Php 15,000 per family, if the present means of livelihood is no longer viable and the affected family will have to engage in a new income activity
- Eligibility: PAPs without TCT and TD
- Entitlement: Compensation on land improvements only, If PAPs do not own any real property whether in the urban or rural areas as defined in RA 7279, may apply for housing in LGU or NHA resettlement sites
- Eligibility: Holders of free or homesteads patents and Certificates of Land Ownership Award (CLOA) under CA 141. Public Lands Act
- Entitlement: Compensation on land improvements only, Cash compensation for damaged crops at the current market value, Disturbance compensation equivalent to five times the

average of the gross harvest for the past 5 years but not less than PhP15,000

- Eligibility: Lessors or lessees of agricultural land
- Entitlement: Disturbance compensation equivalent to 5 times the average gross harvest during the last 5 years contrary to the statement of only 3 years.

Structure:

- Eligibility: Owners with or without Transfer Certificate of Title (TCT) or Tax Declaration (TD) (Tax declaration can be legalized to full title)
- Entitlement: Cash compensation for entire structure at 100% replacement cost (compliant with RA10752), Rental subsidy for the time between the submission of complete documents and release of payment on land or structure, Inconvenience allowance in the amount of Php 10,000 for relocation and new construction, Transportation assistance, Cash compensation for affected portion of the structure at 100% replacement cost
- Eligibility: Absentee owners of structures with or without TCT or TD
- Entitlement: Cash compensation for entire structure at 100% replacement cost, Cash compensation for affected portion of the structure at 100% replacement cost
- Eligibility: Renters and Rent-free occupants
- Entitlement: Rental Subsidy will be given to PAFs without sufficient additional land to allow the reconstruction of their lost house under the following circumstances:
 - a. The concerned properties are for residential use only and are considered as severely affected.
 - b. The concerned PAFs were physically residing in the affected structure and land at the time of the cut-off date.
 - c. The amount to be given will be equivalent to the prevailing average monthly rental for a similar structure of equal type and dimension to the house lost.
 - d. The amount will be given for the period between the delivery of house compensation and the delivery of land compensation.
 - e. If the compensation was provided prior to construction, no rental subsidy will be provided.

Business:

- Eligibility: Business owners
- Entitlement: Income rehabilitation assistance not to exceed one month net income according to business/income level based on a tax record, income statement and/or a business permit during reestablishment period, Rehabilitation assistance in the form of livelihood and skills training, capital for small business
- Eligibility: Employees
- Entitlement: Rehabilitation Assistance in the form of special skills training or other development activities (budget of Php 15,000) in coordination with other government

agencies, if the present means of livelihood is no longer viable and the affected family will have to engage in a new income activity

Improvement:

- Eligibility: PAPs with or without Transfer Certificate of Title (TCT) or Tax Declaration (TD)
- Entitlement: Cash compensation for the affected improvements at 100% replacement cost

Crops, Trees, Perennials:

- Eligibility: Owners of crops, trees, perennials
- Entitlement: Cash compensation for crops, trees, and perennials at the current market value as prescribed by the concerned LGUs (PAPs are allowed sufficient time to harvest their crops.)

Graves:

- Eligibility: Owners of graves
- Entitlement: Relocation by LGU which manages the public cemetery

Vulnerable Households:

- Eligibility: Households with poor, women, children, female-headed households, elderly, disabled,
- Entitlement: Rehabilitation Assistance in the form of special skills training or other development activities (budget of Php 15,000) in coordination with other government agencies, Transportation assistance to transfer to relocation place
- Eligibility: Homeless, landless, underprivileged, informal occupants of public land, except Professional Squatters and Squatting Syndicates as defined in RA 7279
- Entitlement: If qualified, may apply for housing in LGU or NHA resettlement sites, Rehabilitation Assistance in the form of special skills training or other development activities (budget of Php 15,000) in coordination with other government agencies, Transportation assistance to transfer to resettlement site or return to place of original province

6.2 Support for Vulnerable Groups

The projects will pay special attentions on the poor and landless residents, elderly, women and children, particularly for households below the poverty line, with disabled people, with women/elderly household heads. The results of socio-economic survey showed that mostly half (46%) of households had vulnerable persons, in particular, female-headed household was the majority at 32.5%. Therefore, they are given priority for the supports with vocational training, financing and food aid.

In addition, in consideration of women, the RAP will propose to consider those who are responsible for the part of the livelihoods of families, or de facto household heads who mainly support family and livelihood, eligible persons for compensation. The women and elderly are likewise mobilized and consulted to participate in the consultation meetings.

CHAPTER 7. SUPPORT FOR REBUILDING LIVES

7.1 Livelihood Rehabilitation

Based on the results of socio-economic survey, the respondents had interest in own businesses even micro scales, or in the skill development trainings. Preferred businesses were retail store, personal business, food-related as the majority, and other minor items were cosmetology, soap making, computer programming, online business, etc. Preferred skill trainings were cooking/food-related/baking, welding/construction/electrician, business and clothing.

The measures to support livelihood rehabilitation will be implemented around before and after relocation, so that the affected people can recover their livelihoods promptly after relocation. In the detailed design (D/D) phase, the draft RAP will be finalized based on the works of parcellary survey with mapping, census survey/structure tagging (C/T), inventory of PAPs' assets, master list of eligible PAPs and entitlement, evaluation of PAP's assets for compensation. The measures to support livelihood rehabilitation will also be determined based on these results in the RAP.

United Project Implementation Office or the Project Management Office-Flood Control Management Cluster (UPMO-FCMC) of the DPWH will program the livelihood rehabilitation measures through technical guidance of ESSD. UPMO-FCMC will coordinate and cooperate with supporting agencies, Cavite Provincial Cooperative, Livelihood and Entrepreneurial Development Office (PCLEDO), Technical Education and Skills Development Authority (TESDA), National Housing Authority (NHA) or other agencies mentioned below to program the livelihood rehabilitation measures. The measures such as the skills trainings will be designed six months before the relocation starts at the latest, and implemented between 4 months before and one year after the relocation.

7.1.1 Livelihood and Employment Development

(1) Cavite Provincial Cooperative, Livelihood and Entrepreneurial Development Office (PCLEDO)

As the results of socio-economic survey showed, the respondents had interest in own businesses even micro scales for their livelihoods. In this mean, the PCLEDO can effectively help them. The PCLEDO conducts the Techno-Livelihood Caravan for poor communities according to requests from LGUs and/or resident groups in coordination with the concerned municipal governments. The caravan is known as the "Pangkabuhayang Pagsasanay sa Pamayanan," (Community Livelihood Training) for cooperatives, livelihood and entrepreneurial developments particularly by producing household-based products so that low-income families can produce commercially in their backyards to earn income. The typical products are processed foods (chocolate, cold cuts, boneless bangus, tinapa, fish/squid balls,

spicy dried anchovies, fish nuggets, siomai, tahong chicharon, crispy crustaceans and seaweeds snacks, fruit preserves, coated candies, etc.), and handicrafts or novelties (decorative balloons, fashion accessories, flower arrangement, candle-making, liquid soap and conditioner, perfume, disinfectant, etc.).

(2) Gender Responsive Intervention

As the results of socio-economic survey also showed that many female-headed households were found, gender responsive intervention can contribute to support those households. Cavite Province implements the Gender and Development Plan (GAD) including improvement of women's health/welfare, development of livelihoods and entrepreneurship to promote self-employment and home-based activities for the job opportunities. The Techno-Livelihood Caravan by PLLEDO is also conducted for organized women's groups as a part of the GAD.

Some LGUs and NGOs conduct sewing classes, computer literacy, automotive mechanics and adult education programs for mothers and out-of-school youths. Other NGOs supports women to develop the livelihoods in dried fish production, backyard gardening and vending, and those are also expected potential supports to develop income sources for women.

7.1.2 Skill Development

Skill development trainings were also preferred by the respondents according to the results of socio-economic survey, and in the types of them, cooking/food-related/baking, welding/construction/electrician, and clothing were preferred. For these needs, there is skill development trainings by the Technical Education and Skills Development Authority (TESDA) which is an agency of the Philippine government under the Department of Labor and Employment (DOLE) responsible for managing and supervising technical education and skills development in the Philippines, especially to promote and develop middle-level manpower. The TESDA provides technical vocational education and training (TVET) in the TESDA schools/training centers and schools with partnerships. Meanwhile, the TESDA conducts community based skill trainings which are specifically designed to the needs of the barangays, and is carried out in partnership with LGUs, non-government groups, civil society organizations, people's organizations, and other national government agencies.

The training programs are conducted as basic capability building courses. The target beneficiaries include the poor and under privileged residents such as out of school youth, women, and unemployed adults, subsistence farm workers/fisher folks, indigenous people, and informal sector people.

The TESDA conducts skill trainings for carpentry, masonry, electrical work, cosmetics, crafts making in resettlement sites developed by the NHA. It contributes to provide new skills or raise skill levels for the relocated people. The trainees can obtain a qualification certified by the TESDA to enhance job opportunities. A skill for construction obtained or improved for the

relocated people may facilitate job opportunities for the project constructions. The TESDA provides the standard training modules and related equipment, supplies and materials, qualified trainers, competency assessment and certification, monitoring and evaluation and if possible, starter tool kits to graduates.

7.1.3 Financing Opportunities

Entrepreneurship development assistance or skill development training were more preferred by the respondents than access to financing institution in the results of socio-economic survey. However, the financial supports are effective as seed money is necessary to start own businesses even micro scale, and to resume disrupted businesses and livelihoods.

The Self-employment Assistance-Kaunlaran (SEA-K) Program provided by Department of Social Welfare and Development (DSWD) is one of the options for finance. The SEA-K aims to enhance the socio-economic skills of poor families through the organization of community-based associations for entrepreneurial development including social preparation, formation of groups and association, capital assistance, savings mobilization, technical assistance, and access to other social services.

7.1.4 Cooperative Development

Although low interest in the cooperative development assistance was found in the results of socio-economic survey, the operation of cooperatives is appropriate for low-income people as they are not taxed, and it can be one of measures to rebuild the livelihoods of relocated people.

The PCLEDO supports to establish and operate the cooperatives in order to provide more opportunities and capital for livelihood development through coordination with LGUs, DTI and partner NGOs in Cavite. Actually, the PCLEDO supports for organizing and registering the cooperatives, and suggests and introduce available programs for necessary funds and trainings.

7.1.5 NHA Livelihood Development Programs

In the resettlement sites developed by NHA, NHA's Livelihood Development Department (NLDD) supports relocated people in resettlement sites to rehabilitate their livelihoods especially with skill trainings, job referrals and placements. The NLDD works to facilitate low income families to afford decent housing through access to livelihood opportunities, development of alternative housing approaches, and provision of technical assistance. There are three key programs as follows.

(1) Resettlement Cum Livelihood Programs (Resettlement with Livelihood Programs)

This program is a package of technical assistance to provide access to livelihood and income generating activities for the relocated people. The primary targets are families whose monthly household income is Php 5,000 and below. Main programs are:

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- **Skills Training:** NHA programs skills training courses in coordination with government agencies (especially TESDA) and private organizations according to the interests and skills of relocated people. Typical skills trainings are i) Fancy Jewelry Making, ii) Waste Recycling, iii) Basic Cosmetology, iv) Cell Phone Repair, v) Masonry, vi) Dishwashing Liquid, Fabric Conditioner and Perfume Making, vii) Hand Wash, Shampoo, Cologne and Perfume Making, and viii) Candle Making.
 - **Job Referrals and Placements:** NHA coordinates with business establishments around resettlement sites to identify potential job opportunities and employments for relocated people. Then, NHA examines job applicants whose qualifications meet the job requirements to refer to employers. The most referable job opportunities are construction companies for resettlement sites. They can be employed in the on-going construction of structures and facilities of the resettlement sites. NHA coordinates with the LGU-Public Employment Service Office (PESO) and the City Social Welfare and Development Office (CSWD) for the job referrals.
 - **Access to Micro Financing Institutions:** NHA coordinates with government agencies and non-government organizations in order to support PAPs to access micro-credit facilities. The Self- Employment Assistance (SEA-K) supported by DSWD mentioned above enable relocated people to establish small businesses such as a pharmacy and a waste recycling and junk shop operation. NHA also cooperates with CSWD in providing cooperative and credit trainings.
 - **Entrepreneurship Development:** NHA provides relocated people assistance packages in order to enhance their capabilities to become successful entrepreneurs for generation of employments and incomes.
 - **Cooperative Development:** NHA supports relocated people in organizing service or product cooperatives such as transport, market, water system, food processing, or construction workers co-ops with the cooperation of the Cooperative Development Authority.

(2) Impok Pabahay Program (Provident Housing Program)

The program is a financial asset-building scheme to enable housing beneficiaries to meet their housing obligations through a planned savings program. The program will redirect and upgrade the existing informal/traditional financial management and practices to be more workable, systematic and sustainable in building beneficiaries' financial resources. The concrete target is to save at least PHP10/day to meet their household needs and housing obligations.

(3) Cooperative Pabahay Program (Cooperative Housing Program)

This is an alternative housing approach entailing partnership with financially and organizationally stable cooperatives to address the housing problems of the members, primarily,

low income families. Affordable, decent and adequate housing units are planned and produced through its cooperative efforts.

(4) Institutions Related to Livelihood Rehabilitation Assistance

Several agencies such as the Department of Agriculture (DA), the Technical Education and Skills Development Authority (TESDA), the Cooperative Development Authority (CDA), and the Department of Social Welfare and Development (DSWD) cooperate with NHA for livelihood rehabilitation assistance and trainings in resettlement sites. Some examples are as follows. i) DA: Training for growing vegetables and flowers, ii) TESDA: Training for carpentry, masonry, electrical work, cosmetics, crafts making, iii) CDA: Setting up cooperative for water bottling business with micro-finance, Training for cooperative formation and management, iv) DSWD: Training for basic baking as a part of livelihood cum hunger mitigation project.

7.2 Social Rehabilitation

The LGUs and Barangays which absorb the relocated people play a major role in order to facilitate the social rehabilitation process. The LGUs, city, municipalities and barangays which receive relocated people, will extend the social services to meet the increased population for health care, education, sport/recreational activities (additionally build health care centers, schools, sport/recreational facilities). Besides, they should maintain the security order and secure the habitability and harmony in the resettlement sites.

In Cavite, NGOs have been assisting the relocated people through comprehensive community settlement development. In the development programs, the NGOs supported the relocated people to build houses and neighborhood facilities to re-build their lives through community-based activities.

CHAPTER 8. RESETTLEMENT SITES

8.1 Development of Resettlement Sites in the Concerned LGUs

The location of resettlement site should be accepted by PAPs with coordination. In principle, the location should be considered i) proximity to original location, ii) proximity to employment and livelihood opportunities, iii) accessibility (access roads and public transportation provided), iv) capacity of population and social services, v) proximity to public facilities, especially schools and health centers. In addition, the results of socio-economic survey showed that the respondents preferred the relocation within the same Barangay or nearby it. They also preferred resettlement on government sponsored site. Therefore, the development of resettlement sites will be proposed in the concerned LGUs.

8.1.1 Resettlement Sites as Land Swapping for Affected Formal Settler Families

The project affected formal settler families shall be paid/compensated with the sum of (a) the current fair market value of the land, (b) the replacement cost of structures and improvements, and (c) the current fair market value of crops and trees, in accordance with the Republic Act No. 10752 (RA10752) and its Implementing Rules and Regulations (RA10752-IRR). Meanwhile, considering that the affected people prefer to resettle places as close as possible to the current residence, land swapping in nearby developed resettlement sites can be another entitlement to be offered for the formal settler families.

Therefore, the project affected formal settler families shall be also entitled to choose land swapping if feasible, instead of the monetary compensation by the current fair market value of the land in the above item (a). In this connection, DPWH has agreed to allocate the necessary budget and coordinate with the relevant LGUs to meet the land swapping as the results of discussions with the JICA Fact Finding Mission. It is also agreed that a part of amount of the JICA Loan will be allocated to development of land and infrastructure for land swapping. Thus, resettlement sites to be alternative residence with basic infrastructure will be developed for the formal settler families as the land swapping in the Project.

8.1.2 Resettlement Sites for Affected Informal Settler Families

The project affected informal settler families may apply to housing in the resettlement site in accordance with RA 7279 and shall be paid/compensated with the sum of (a) the replacement cost of structures and improvements, and (b) the current fair market value of crops and trees. In Noveleta, the Mayor indicates to support for preparing the resettlement site within the municipality. The resettlement sites will be provided with the Mayor's agreement although the locations are under coordination.

8.1.3 Further Activities and Roles of Concerned Agencies for Resettlement Sites

DPWH and Noveleta LGU shall take the following roles at the time of detailed design of the Project in order to develop the resettlement sites mentioned above.

DPWH commits the following tasks and to expend its own GOP fund to shoulder the cost for:

- (a) Land acquisition of the resettlement sites for the formal settler families, who choose the aforesaid land swapping;
- (b) Land acquisition, for the informal settler families at their resettlement;
- (c) Development of resettlement sites with using of JICA Loan

DPWH shall also design the resettlement site plan for its development.

The Local Government Unit (LGU) of Noveleta commits to undertake the following:

- (a) To find parcel of land for possible relocation for the affected formal settler families, who choose the land swapping;
- (b) To find parcel of land for possible relocation site for the affected informal settler families; and
- (c) To shoulder the cost of housing for the affected informal settler families at the designated resettlement site.

Besides, Noveleta LGU shall identify and register the informal settler families in cooperation with NHA based on RA 7279.

Meanwhile, the Japan International Cooperation Agency (JICA) will commit to ensure the land grading and preparation of infrastructures for the relocations sites both for the formal and informal settler families by providing the JICA loan.

8.1.4 Other Opportunities to Offer Resettlement Sites

Cavite Provincial Housing Development Management Office (PHDMO) has been constructing the low-cost subdivision in cooperation with the private developers in Pasong Kawayan II of General Trias City. The subdivision has total development area of 53 hectares and total 4,810 units are planned. The unit types have two types with a septic tank, one is a Duplex Unit (Two buildings housing type) and the other is a Row House (semi-detached house). The former unit has 48 square meters area and 22.5 square meters floor area, the latter unit has 32 square meters area and 20.25 square meters floor area. As of the end of 2012, 1,240 units were occupied.

The members of Home Development Mutual Fund (HDMF), so-called Pag-IBIG Fund, can apply the social housings in Pasong Kawayan II. The Home Development Mutual Fund is popularly known as Pag-IBIG Fund. This fund primarily aims at to provide the members

adequate housing through an effective funding scheme. Specifically, the members monthly pay for the fund so that they can obtain housing loan with favorable conditions.

Initially, the fund members were subjected and limited to employees of government who are members of the Government Service Insurance System (GSIS) and employees of private companies who are members of the Social Security System. However, the fund membership has expanded to self-employed groups with informal income, overseas Filipino workers, and non-earning spouses. Therefore, the subdivision can be proposed as a candidate for resettlement if the affected families are members of the HDMF and they prefer to move in there.

8.2 Relocation of Graves

Regarding the graves affected by the project in the Noveleta public cemetery, the following basic agreements were made among DPWH as the project implementer, Noveleta municipality as the administrator of the municipal cemetery, and the private cemetery owner adjacent to the municipal cemetery.

- DPWH will acquire the open space of the adjacent private cemetery at the market price for the relocation of graves.
- The above relocation site will be transferred to the municipal cemetery, and the graves will be managed by Noveleta municipality after the relocation.
- The owners of graves will receive the graveyards for free and the compensation to transfer and rebuild the graves.

CHAPTER 9. ENTITLEMENT MATRIX

The entitlement matrix was drafted with consideration for the LARRIPP as the basic frame, as shown in Table 9.1.

Table 9.1 Entitlement Matrix (Draft)

Type of loss	Application	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Responsible Organization		
1. Lands (Classified as Agricultural, Residential, Commercial, or Institutional)	Severe Impact	PAPs with Transfer Certificate of Title (TCT) or Tax Declaration (TD) (Tax declaration can be legalized to full title)	<ul style="list-style-type: none"> Cash compensation for loss of entire land at the current market value of land If feasible, land for land will be provided in terms of a new parcel of land of equivalent value or productivity, at a location acceptable to PAPs Cash compensation for damaged crops at the current market value Rehabilitation assistance in the form of skills training equivalent to Php 15,000 per family, if the present means of livelihood is no longer viable and the affected family will have to engage in a new income activity 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH) 		
		Holders of Certificates of Land Ownership Award (CLOA) granted under the Comprehensive Agrarian Reform Act				
		PAPs without TCT and TD			<ul style="list-style-type: none"> Compensation on land improvements only If PAPs do not own any real property whether in the urban or rural areas as defined in RA 7279, may apply for housing in LGU or NHA resettlement sites 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH) LGUs NHA PHDMO NGO
		Holders of free or homesteads patents and Certificates of Land Ownership Award (CLOA) under CA 141. Public Lands Act			<ul style="list-style-type: none"> Compensation on land improvements only Cash compensation for damaged crops at the market value Disturbance compensation equivalent to five times the average of the gross harvest for the past 5 years but not less than Php15,000 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH)
		Lessors or lessees of agricultural land			<ul style="list-style-type: none"> Disturbance compensation equivalent to 5 times the average gross harvest during the last 5 years contrary to the statement of only 3 years 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH)
	Marginal Impact	PAF with Transfer Certificate of Title (TCT) or Tax Declaration (TD) (Tax declaration can be legalized to full title)	<ul style="list-style-type: none"> Cash compensation for affected land at the current market value of land Cash compensation for damaged crops at the current market value 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH) 		
		Holders of CLOA granted under the Comprehensive Agrarian Reform Act				
		Holders of free or homestead patents and CLOA under CA 141. Public Land Act			<ul style="list-style-type: none"> Compensation on land improvements only Cash compensation for damaged crops at the current market value 	
	2. Structures (Classified as Residential/ Commercial/ Industrial)	Severe Impact	Owners with or without Transfer Certificate of Title (TCT) or Tax Declaration (TD) (Tax declaration can be legalized to full title)	<ul style="list-style-type: none"> Cash compensation for entire structure at 100% replacement cost (compliant with RA10752) Rental subsidy for the time between the submission of complete documents and release of payment on land or structure Inconvenience allowance in the amount of Php 10,000 for relocation and new construction Transportation assistance 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH) 	
		Marginal Impact				<ul style="list-style-type: none"> Cash compensation for affected portion of the structure at 100% replacement cost
Severe Impact		Absentee owners of structures with or without TCT or TD	<ul style="list-style-type: none"> Cash compensation for entire structure at 100% replacement cost 			
Marginal Impact			<ul style="list-style-type: none"> Cash compensation for affected portion of the structure at 100% replacement cost 			
Severe Impact		Renters and Rent-free occupants	<ul style="list-style-type: none"> Rental Subsidy will be given to PAFs without sufficient additional land to allow the 			

Table 9.1 Entitlement Matrix (Draft)

Type of loss	Application	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Responsible Organization
			reconstruction of their lost house under the following circumstances: a. The concerned properties are for residential use only and are considered as severely affected. b. The concerned PAFs were physically residing in the affected structure and land at the time of the cut-off date. c. The amount to be given will be equivalent to the prevailing average monthly rental for a similar structure of equal type and dimension to the house lost. d. The amount will be given for the period between the delivery of house compensation and the delivery of land compensation. If the compensation for was provided prior to construction, no rental subsidy will be provided.	
3. Business	Severely or marginally affected	Business owners	<ul style="list-style-type: none"> Income rehabilitation assistance not to exceed one month net income according to business/income level based on a tax record, income statement and/or a business permit during reestablishment period Rehabilitation assistance in the form of livelihood and skills training, capital for small business 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH) LGUs DA TESDA CDA DSWD PESO (DOLE) DTI PCLEDO NGO
		Employees	<ul style="list-style-type: none"> Rehabilitation Assistance in the form of special skills training or other development activities (budget of Php 15,000) in coordination with other government agencies, if the present means of livelihood is no longer viable and the affected family will have to engage in a new income activity 	
4. Improvements (other non-dwelling structures)	Severely or marginally affected	PAPs with or without Transfer Certificate of Title (TCT) or Tax Declaration (TD)	<ul style="list-style-type: none"> Cash compensation for the affected improvements at 100% replacement cost 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH)
5. Crops, Trees, Perennials	Severely or marginally affected	Owners of crops, trees, perennials	<ul style="list-style-type: none"> Cash compensation for crops, trees, and perennials at the current market value as prescribed by the concerned LGUs (PAPs are allowed sufficient time to harvest their crops.) 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH)
6. Graves	Severely or marginally affected	Owners of graves	<ul style="list-style-type: none"> Relocation by LGU which manages the public cemetery 	<ul style="list-style-type: none"> LGU DPWH
7. Vulnerable Households	Severely or marginally affected	Households with poor, women, children, female-headed households, elderly, disabled	<ul style="list-style-type: none"> Rehabilitation Assistance in the form of special skills training or other development activities (budget of Php 15,000) in coordination with other government agencies Transportation assistance to transfer to relocation place 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH) LGUs PHDMO
		Homeless, landless, underprivileged, informal occupants of public land, except Professional Squatters and Squatting Syndicates ¹⁾ as defined in RA 7279	<ul style="list-style-type: none"> If qualified, may apply for housing in LGU or NHA resettlement sites Rehabilitation Assistance in the form of special skills training or other development activities (budget of Php 15,000) in coordination with other government agencies Transportation assistance to transfer to resettlement site or return to place of original province 	
8. Losses of community or public structures	Severely or marginally affected	Community or public structure owners/administrators	<ul style="list-style-type: none"> Cash compensation for entire or affected portion of the structure at 100% replacement cost 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH)
9. Displacement of social infrastructure	Severely or marginally affected	Owners/operators of social infrastructure services	<ul style="list-style-type: none"> Compensation to cover the cost of temporary relocation of social infrastructure and rehabilitations through coordination and negotiations with owners/operators of social infrastructure services and communities 	<ul style="list-style-type: none"> UPMO-FC MC (DPWH)
10. Temporal	Owners of unused	Land owners	<ul style="list-style-type: none"> Land owners will be paid for the rent/lease of land 	<ul style="list-style-type: none"> UPMO-FC

Table 9.1 Entitlement Matrix (Draft)

Type of loss	Application	Entitled Persons (Beneficiaries)	Entitlement (Compensation Package)	Responsible Organization
loss of control of land use	parcels of land along the project sites		parcels based on market value and length of occupation by DPWH. <ul style="list-style-type: none"> • DPWH will return the land parcels to the owner after the lease contract is over and will recover the condition of the land at pre-project level. 	MC (DPWH)
11. Other loss or impact not predicted when the RAP is prepared	Severely or marginally affected	PAPs, households, or parties affected by unanticipated impact identified during the RAP implementation	<ul style="list-style-type: none"> • DPWH, in coordination with other concerned institutions, will recognize the impact to assess the severity, and negotiate with the PAPs for adequate assistances and compensations of impacts. 	<ul style="list-style-type: none"> • UPMO-FC MC (DPWH) • Concerned institutions

Note: Severe Impact: More than 20% of the total landholding lost or where less than 20% lost but the remaining land holding become economically unviable.

Marginal Impact: Less than 20% of the total landholding lost or where the remaining structure can still function and is viable for continued use.

1) As defined by Republic Act 7279, "persons who have previously been awarded home lots or housing units by the government but who sold, leased or transferred the same to settle illegally in the same place or in another urban area, and non bona fide occupants and intruders of lands reserved for social housing. The term also refers to individuals or groups who occupy lands without the expressed consent of the landowner and who have sufficient income for legitimate housing.) However, individuals or groups who simply rent land and housing from professional squatters or squatting syndicates are included.

Source: LARRIPP, JICA Study Team

CHAPTER 10. GRIEVANCE REDRESS MECHANISM

The PAPs' right to appeal grievances and that the grievances are solved is guaranteed through grievance redress procedures and mechanisms, particularly for legitimate complaints and conflicts over compensation and entitlements. If grievances related to any aspect of the project arise, these will be handled through negotiations and are aimed at achieving consensus through the following procedures. Meanwhile, the PAPs shall be exempted from all administrative and legal fees incurred pursuant to the grievance redress procedures.

- A grievance will be filed by the PAP with the City/Municipality Resettlement Implementation Committee (C/MRIC) which will be established in concerned LGUs, Imus, Kawit, General Trias, Noveleta and Rosario, who will act within 15 days upon receipt thereof, except complaints and grievances that specifically pertain to the valuation of affected assets, since such will be decided upon by the proper courts;
- If no understanding or amicable solution can be reached, or if the PAP does not receive a response from the C/MRIC within 15 days of registry of the complaint, the PAPs can appeal to the DPWH Region IV-A Office (RO IV-A), which should act on the complaint/grievance within 15 days from the day of its filing;
- If the PAP does not satisfy with the decision of the RO IV-A, the PAP, as a last resort, can submit the complaint to any court of law.

CHAPTER 11. INSTITUTIONAL FRAMEWORK

11.1 Leading Organizations

11.1.1 The United Project Implementation Office or the Project Management Office-Flood Control Management Cluster (UPMO-FCMC) of the DPWH

The United Project Implementation Office or the Project Management Office-Flood Control Management Cluster (UPMO-FCMC) of the DPWH has overall responsibility for implementing the project. The UPMO-FCMC manages and supervises the project, including resettlement activities and land acquisition, in coordination with relevant agencies. The UPMO-FCMC ensures that funds for the timely implementation of the RAP are available and that expenses are properly accounted for. The UPMO-FCMC is assisted by ESSD in providing technical guidance and support in the implementation of the RAP.

11.1.2 Cavite First District Engineering Office (CDEO) of the DPWH

The Cavite First District Engineering Office (CDEO) is the major implementer of the RAP activities. Its specific activities include: a) oversee the staking-out, verification and validation of the PAFs' assets; b) conduct inventories of properties that will be affected; c) approve disbursement vouchers/payments; d) submit reports on disbursements and payments to PAFs to the Regional Office and the UPMO-FCMC; e) submit monthly progress reports to ESSD, the RO IV-A and the UPMO-FCMC; and f) act actively as a member of the City/Municipality Resettlement Implementation Committee (C/MRIC).

11.1.3 Region IV-A Office (RO IV-A) of the DPWH

The Region IV-A Office (RO IV-A) acts as the liaison between ESSD and the Cavite First District Engineering Office (CDEO), and ensures that the RAP is implemented as planned. Its specific activities include: i) monitor the RAP implementation and fund disbursement; ii) submit the monthly progress reports to ESSD, iii) monitor payments to PAFs; and iv) address grievances filed at its office by the PAFs for speedy resolution.

11.2 Supporting Organizations

11.2.1 Environmental and Social Safeguard Division (ESSD)

The ESSD provides technical guidance and support in the implementation of the RAP activities responsibly for the following activities:

- Overall preparation and planning of the RAP;
- Submit the RAP budget plans (to include compensation, relocation costs, operations) for approval and allocation of needed resources by the DPWH central office;
- In accordance with the Department's resettlement policies, guide the Cavite First District Engineering Office (CDEO) and the Region IV-A Office (RO IV-A) in their tasks, such as

-
- the verification of PAFs, final inventory of affected assets, and information dissemination;
 - Amend or complement the RAP in case problems are identified during the internal and/or external monitoring of its implementation;
 - In collaboration with its counterpart in the Region, follow-up with the DPWH Region IV-A Office (RO IV-A) the processing of compensation claims of PAFs;
 - In collaboration with UPMO-FCMC, monitor the actual payment of compensation to PAFs; and,
 - In collaboration with its regional counterpart, prepare periodic supervision and monitoring reports on RAP implementation for submission to the UPMO-FCMC.

11.2.2 City/Municipality Resettlement Implementation Committee (C/MRIC)

The City/Municipality Resettlement Implementation Committee (C/MRIC) will be established in each LGU, Imus, Kawit, General Trias, Noveleta and Rosario. The C/MRIC is mainly composed of representatives from the Region IV-A Office (RO IV-A) and Cavite First District Engineering Office (CDEO), the City/Municipality LGUs, representatives of affected barangays/PAFs/PAPs, and NGOs working in City/Municipality. A Memorandum of Understanding (MOU) will be made between the DPWH and the LGUs, which stipulate the roles of each party. (See Annex B as an example of MOU.) Furthermore, women's participation will be encouraged for the members of C/MRIC in consideration of gender balance.

- Key members of C/MRIC: City/Municipal Mayors, DPWH District Engineers, City/Municipal Officials, Chairpersons of the Barangays, Representatives of the PAFs in the Barangays, Representative of City/Municipal-wide NGO if there is any, endorsed by other member of the C/MRIC

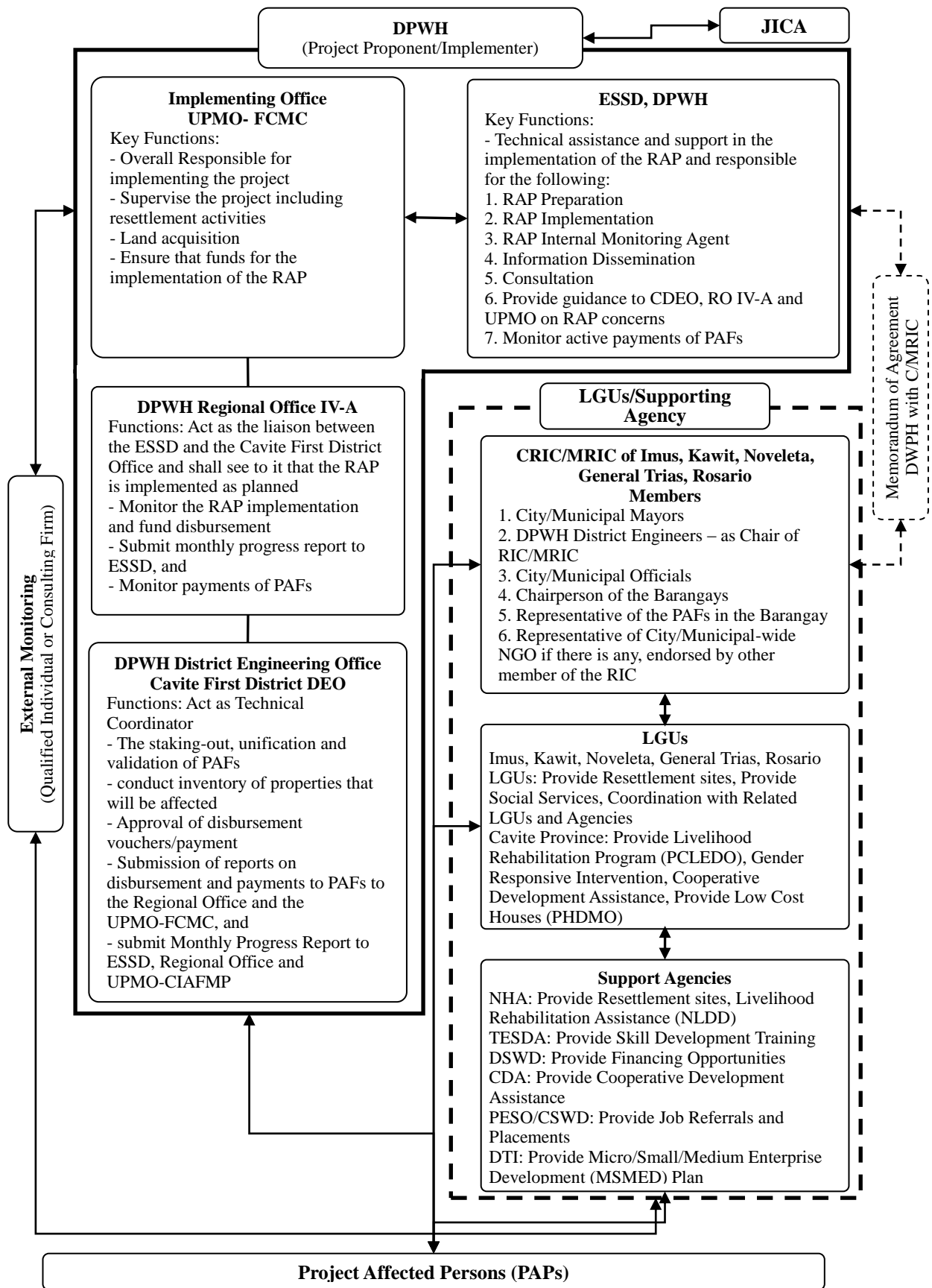
The C/MRIC functions to:

- Assist the DPWH staff engaged in the RAP activities in i) validating the list of PAFs; ii) validating the assets of the PAFs that will be affected by the project; and iii) monitoring the RAP implementation;
- Assist the DPWH and staff engaged in the RAP activities in the public information campaign, public participation and consultation;
- Assist DPWH in the payment of compensation to PAFs;
- Receive complaints and grievances from PAFs and other stakeholders and act accordingly;
- Maintain a record of all public meetings, complaints, and actions taken to address complaints and grievances; and
- In coordination with concerned government authorities, assist in the enforcement of laws/ordinances regarding encroachment into the project site or ROW.

11.2.3 Other Supporting Organizations

As other related supporting organizations, the LGUs of Imus, Kawit, Noveleta, General Trias and Rosario, will work to provide resettlement sites and social services, and coordination with concerned agencies and the other LGUs relating to the project, but not only as a member of the C/MRIC. The Cavite Provincial Cooperative, Livelihood and Entrepreneurial Development Office (PCLEDO) will provide the programs of livelihood and employment development, and gender responsive intervention, cooperative establishment support. Cavite Provincial Housing Development Management Office (PHDMO) will provides low-cost housing.

Furthermore, as supports from other government agencies: NHA will support resettlement site development with LGUs and livelihood recovery supports for the residents in the resettlement sites by Livelihood Development Department (NLDD); TESDA will provide the skill development trainings; Department of Social Welfare and Development (DSWD) will provide available financing opportunities; Cooperative Development Authority (CDA) will support for the cooperative establishment and operation; Public Employment Service Office (PESO)/ City Social Welfare and Development Office (CSWD) will support the job referrals and placements; Department of Trade and Industry (DTI) will support the micro-small and medium-sized enterprise developments.



Source: JICA Study Team

Figure 11.1 RAP Implementation Structure

CHAPTER 12. RAP IMPLEMENTATION SCHEDULE

Implementation schedule of land acquisition and resettlement is shown in Table 12.1. The RAP drafted in the F/S will be reviewed and finalized in the detailed design (D/D) phase based on the works of parcellary survey with mapping, census survey/structure tagging (C/T) including identification and registration of the ISFs, inventory of PAPs' assets, master list of eligible PAPs and entitlement, evaluation of PAP's assets for compensation. Ahead in these activities, the RAP implementation structure, especially C/MRIC and the grievance redress system will be built.

In a parallel way with these activities, public consultations, grievance redress, monitoring and evaluation will be started and conducted throughout the entire process of resettlement activities until the completion of construction. Negotiations and consensus building will be started according to each construction schedule of project component, and the payment is completed before relocation. In a parallel way with the negotiations and consent building, the preparations of resettlement site development plan, the livelihood recovery support and the other supports will also be started.

Table 12.1 RAP Implementation Schedule

Work Item	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
1 Appraisal																							
2 Pledge																							
3 Signing of Loan Agreement																							
4 Procurement of Consultant (for DD & CS)																							
5 RAP Implementation																							
5-1 Establishment of Implementation Units and Grievance Redress Mechanism																							
5-2 Census Survey/Structure Tagging, Parcelary Survey with Mapping																							
5-3 Inventory of PAFs' Assets, Master List of eligible PAFs, and Entitlement																							
5-4 Evaluation of PAFs' Assets for Compensation, RAP updating and Finalization																							
5-5 (IEC) Campaigns, Consultation and Grievance Redress																							
5-6 Resettlement site plan and preparation																							
5-7 Negotiation and Compensation																							
5-8 Preparation and Implementation of Livelihood Recovery Assistance and Other Assistance																							
5-9 Relocation and Clearance																							
5-10 Monitoring and Evaluation (Internal and External)																							
6 Consulting Services																							
7 Procurement of Contractor for Package 1																							
8 Procurement of Contractor for Package 2, 3 and 4																							
9 Procurement of Contractor for Package 5: Resettlement Site Development																							
10 Construction period																							
10-1 Package 1: San Juan Diversion Channel and Maalimango Diversion-I																							
10-2 Package 2: Rio Grande River Improvement																							
10-3 Package 3: Ylang-Ylang River Improvement																							
10-4 Package 4: Maalimango Creek Improvement and Maalimango Diversion-II																							
10-5 Package 5: Resettlement Site Development																							
11 Non-Structural Measure /Institutional Capability Development																							

Source: JICA Study Team

CHAPTER 13. COST AND FINANCE

The cost required for the RAP implementation was calculated total 1,603,045 thousand pesos, about 4.0 billion yen (1 yen = 2.497 pesos) as shown in Table 13.1. Among them, 1,333,521 thousand pesos for asset compensation (land, buildings and improvements), 41,893 thousand pesos for compensation, 112,000 thousand pesos for resettlement site development, 151,296 thousand pesos for the cost of RAP activity implementation and 76,335 thousand pesos for physical contingency. The cost of resettlement sites is excluded from the RAP implementation total cost because the cost is considered as the construction cost of Package 5.

Table 13.1 RAP Implementation Cost

Item		Amount (,000 PhP)	Remarks
Land and Structure	Land	1,105,878	Based on the current market value
	Structures (severe)	217,807	Based on replacement cost
	Structures (Marginal)	3,962	Based on replacement cost
	Improvement	5,874	Based on replacement cost
	Subtotal (1)	1,333,521	
Compensation	Graves	16,549	Based on replacement cost
	Trees	384	Based on current market prices of Cavite Provincial Assessor's Office
	Livelihood rehabilitation assistance	11,340	Rehabilitation assistance in the form of special skills training or other development activities (budget of Php 15,000 per household) in coordination with other government agencies for those whose 756 structures are severely affected
	Inconvenience Allowance	7,560	Amount Php10,000 per households for those whose 756 structures are severely affected to be subsidize income during rebuilding
	Special Assistance for vulnerable households	6,060	Rehabilitation assistance in the form of special skills training or other development activities (budget of Php 15,000 per household) in coordination with other government agencies for those whose have vulnerable persons (about 46% of total households, 404 households estimated)
	Subtotal (2)	41,893	
Resettlement Site	Land Development	112,000	Unit cost Php 1,400/sq.m including basic infrastructure is for 80,000 sq.m for residence for land swapping and resettlement sites. This cost is excluded from the RAP implementation cost because the cost is considered as the construction cost of Package 5.
	Subtotal (3)	112,000	
	Total (4)	1,375,414	(1) + (2)
PAP Activities	(5)	151,296	11% of Total (4)
Physical Contingency	(6)	76,335	5% of Total (4) + (5)
Grand Total		1,603,045	(4) + (5) + (6)

Note: The items and amounts are subjects for validation during the Detailed Engineering Design Stage of the Project.

Source: JICA Study Team

13.1 Land

As the parcellary survey was not conducted, land lots were set from types of land use and of close roads to assess the unit land market value more close land sale prices. As reference to the

most recent examples of land transaction request prices in similar areas close to the land lots, a licensed real estate appraiser in the Philippines assessed the unit land values. The latest BIR Zonal Values (November 5, 2007) were used collected from the Bureau of Internal Revenue (BIR) in the related 5 LGUs, Imus, Kawit, General Trias, Noveleta and Rosario. Using these values, total land market values of Php 1,105,877,500 was calculated for the area of 518,531,235 sq.m as shown in Table 13.2. (See Annex C for Land and Structure Valuation Report of Independent Property Appraiser.)

Table 13.2 Market Values of Affected Land

Project Components	Municipality	Land Type	Affected Land (Sq.m)	Land Value	
				BIR Zonal Value (Php)	Market Value (Php)
San Juan Diversion Channel	Noveleta	Commercial	6,703	16,757,500	80,436,000
		Residential	51,190	76,785,000	115,603,000
		Cemetery	27,563	19,294,100	22,050,400
		Agricultural (Raw land/Grassland)	137,251	96,075,700	109,800,800
	Rosario	Agricultural (Raw land/Grassland)	21,458	11,801,900	17,166,400
Maalimango Creek Improvement	Rosario	Commercial	1,586	6,769,125	8,569,000
		Residential	7,717	18,141,735	24,752,300
		Agricultural (Raw land/Grassland)	923	599,950	738,400
Maalimango Diversion-I	Rosario	Residential	11,187	24,499,530	35,798,400
		Agricultural (Raw land/Grassland)	29,888	16,438,400	23,910,400
Maalimango Diversion-II	General Trias	Commercial	11,537	22,918,425	173,055,000
		Residential	1,296	939,600	1,944,000
		Agricultural (Raw land/Grassland)	54,603	25,540,225	46,687,400
	Noveleta	Residential	531	796,500	796,500
Rio Grande (A) River Improvement	General Trias	Residential	17,605	13,417,450	36,204,200
		Agricultural (Raw land/Grassland)	53,021	22,592,695	42,416,800
Rio Grande (B) River Improvement	General Trias	Residential	26,043	49,244,700	138,785,200
	Noveleta	Residential	1,213	1,819,500	4,852,000
Ylang-Ylang River Improvement	General Trias	Residential	29,226	69,090,900	128,340,800
	Imus City	Residential	11,539	10,385,100	40,386,500
	Kawit	Residential	7,908	4,744,800	31,632,000
	Noveleta	Residential	5,488	9,878,400	21,952,000
Total			515,476	518,531,235	1,105,877,500

Source: JICA Study Team

13.2 Structures and Improvements

Selling prices of materials and equipment of supply stores in General Trias, Kawit, Noveleta were used for the unit prices of materials and equipment for the replacement costs of affected structures and improvements. The replacement costs of surveyed 499 buildings and 73 improvements were estimated for each reconstruction of building by using the unit material prices according to those building conditions of scales and structure types. Labor and demolition costs were calculated at 40% of total material costs for the reconstruction of building. (See Annex D for Replacement Cost for the Project Affected Structures, Annex F for Retail Prices of Construction Materials And Floor Area Unit Cost of Replacement Cost, Annex G for Detailed Replacement Cost Estimate for the Project Affected Structures.)

On the other hand, for the 329 buildings which were not able to be surveyed, the building floor areas were estimated with the site reconnaissance and the satellite photo, and the unit floor replacement cost was calculated at Php 4,477 per sq.m from the floor areas with the calculated replacement costs of the surveyed buildings. Using the building floor areas and the floor unit cost of replacement cost, total replacement cost was calculated. (See Annex F for Retail Prices of Construction Materials And Floor Area Unit Cost of Replacement Cost.)

By summing up these replacement costs, total replacement cost of the affected structures and improvements was calculated at Php 227,641,768 as shown in Table 13.3.

Table 13.3 Replacement Costs of Structures

Project Component	Barangay/ Municipality	Kind of Structure	No. of Structures	Impact Category	Total Floor Area (Sq.m.)	Replacement Cost
Ylang-Ylang River	Barangay San Antonio II, Noveleta	Residential	8	Marginal	138	353,940
			32	Severe	860	3,461,860
	Barangay San Sebastian, Kawit	Pigpen	1	Severe	6	18,412
		Residential	29	Severe	1,573	7,500,544
		Institutional	2	Severe	242	1,396,070
	Barangay Bacao 2, General Trias	Chicken Cage	1	Severe	24	48,122
		Fences	3	Marginal	299	210,057
		Residential	5	Marginal	29.50	103,407
		Restroom	2	Severe	6.80	62,212
		Shed	2	Severe	24	53,858
	Barangay Alapan II-A, Imus City	Residential	0	Severe	0	0
		Institutional	1	Severe	15.00	107,339
		Commercial	1	Severe	12.00	90,755
		Pump House	4		24.00	124,587
	Total for Ylang-Ylang River -			91		3,253.30
Rio Grande (B) River Improvement	Barangay Bacao II, General Trias	Residential	14	Marginal	201	1,174,535
			25	Severe	1,909	8,439,027
		Bodega	1	Severe	30	120,168
		Chicken Cage	1	Marginal	2	28,836
		Garage	1	Severe	8	47,530
		Motorpool	1	Severe	63	125,561
		Shed	4	Severe	73	207,579
		Store	2	Severe	36	293,197
	Barangay Sta. Rosa II, Noveleta	Residential	1	Marginal	3	20,206
			7	Severe	546	1,671,573
		Comfort Room	1	Severe	4	32,135
		Shed	1	Severe	9	34,084
Total for Rio Grande (B) River -			59		2,884	12,194,431
Rio Grande (A) River Improvement	Barangay Pinagtipunan, General Trias	Residential	22	Marginal	485	1,435,331
			34	Severe	2,669	11,598,940
		Warehouse	2	Severe	750	1,996,407
		Slaughter House	1	Severe	60	155,851
		Garage and Bodega	2	Severe	88	251,271
		Chicken Pen	5	Severe	76	189,005
		Bird Cage	1	Marginal	2	42,714
		Pigeon Cage	1	Severe	12	42,119
Rio Grande (A) River Improvement	Barangay Pinagtipunan, General Trias	Multi-Purpose	1	Marginal	2	10,333
		Kitchen	3	Marginal	37	100,079
			2	Severe	41	109,231
		Comfort Room	4	Severe	16	79,845
		Shed	2	Severe	99	126,232
		Pond	1	Marginal	20	81,582
	Fence	2	Marginal	30	45,288	
	Barangay Sta. Clara, General Trias	Residential	2	Marginal	4	34,608

Project Component	Barangay/ Municipality	Kind of Structure	No. of Structures	Impact Category	Total Floor Area (Sq.m.)	Replacement Cost
	Barangay Tapia, General Trias	Residential	5	Marginal	88	297,871
			10	Severe	523	1,576,742
		Nipa Hut	1	Severe	12	13,244
		Kitchen	1	Severe	20	27,459
		Chicken Pen	1	Marginal	6	13,595
Total for Rio Grande (A) River -			103		5,040	18,227,747
Diversion Drainage II	Barangay Sta. Rosa II, Noveleta	Residential	1	Severe	54	242,865
	Barangay Bacao I, General Trias	Commercial	1	Severe	1,540	15,720,923
		Residential	23	Severe	789	1,212,682
		Kitchen	1	Severe	40	46,584
		Garage	2	Severe	64	70,790
		Comfort Room	1	Severe	4	27,552
	Barangay Bacao II, General Trias	Commercial	1	Marginal	18	31,395
Total for Diversion Drainage II -			30		2,509	17,352,791
Maalimango Creel Improvement	Barangays Bagbag I, Ligtong I and II and Tejeros Convention, all in Rosario	Discrete inspection only (Commercial, Residential and Others)	108	Severe	10,748	48,118,791
San Juan Diversion Channel	Barangay Sta. Rosa I, Noveleta	Residential	140	Severe	5,578	13,807,339
		Residential	1	Marginal	4	23,998
		Separate Comfort Room	1	Severe	2	18,129
		Talyer	1	Severe	18	23,802
		Billiard House	1	Severe	35	51,246
		Chapel	1	Severe	25	44,983
		Garage	1	Severe	9	19,023
		Junk Shop	1	Severe	20	61,803
		Pigpen	1	Severe	15	51,261
Total for Sta. Rosa I -			148		5,706	14,101,584
San Juan Diversion Channel	Barangay Salcedo I, Noveleta	Residential	104	Severe	3,956	15,482,590
		Residential	2	Marginal	16	49,091
		Comfort Room	1	Severe	6	20,485
		Nipa Hut	1	Severe	64	135,303
		Billiard House	1	Severe	20	39,879
		Barangay Hall	1	Severe	30	340,915
		Multi-Purpose Hall	1	Severe	21	81,900
Total for Salcedo I -			111		4,113	16,150,163
San Juan Diversion Channel	Barangay Salcedo II, Noveleta	Commercial	1	Severe	54	468,538
		Residential	25	Severe	926	4,037,312
		Comfort Room	2	Severe	4	61,891
		Chicken Pen	1	Severe	20	19,572
		Pigpen	1	Severe	26	67,827
Total for Salcedo II -			30		1,030	4,655,140
San Juan Diversion Channel	Barangays Salcedo I and II, San Antonio II, San Rafael I and II, and Sta. Rosa I and II, all in Noveleta	Discrete inspection only (Commercial, Residential and Others)	221	Severe	18,608	83,309,958
Grand Total			901		53,892	227,641,768

Source: Replacement Cost Survey, JICA Study Team

13.3 Trees

Total market values of the affected trees was calculated at Php 384,330 based on the latest market prices by type of tree from Cavite Assessors Office (2015) as shown in Table 13.4. (See Annex H for Market Values of Trees, Cavite Province.)

Table 13.4 Market Values of Trees (2015)

Trees/Perennials	Market Value	Trees/Perennials	Market Value
General Trias		Noveleta	
2-Caimito, 2-Mangga, 2-Lucban/Pomelo	2,000	1-Malunggay, 1-Langka, 4-Coconut	1,100
200- Bamboo	46,000	2-Guyabano, 1-Pomelo, 2-Guava, 9-Coconut	2,200
15-Mangga, 20-Coconut, 1-Chico, 1-Duhat	16,250	1-Santol, 1-Duhat, 1-Pomelo	380
1-Banana, 1-Artilis	240	1-Dalandan, 1-Lucban/Pomelo	200
1-Guyabano, 1-Santol, 1-Langka	480	1-Mangga	800
1-Pomelo	100	1-Avocado, 7-Malunggay	850
1-Lucban/Pomelo	100	2-Saging, 1-Mangga, 1-Macopa, 10 Papaya, 2-Langka, 6-Saging	3,210
8-Indian Tree	800	5-Malunggay, 5-Saging	1,200
4-Banana, 1-Coconut	760	1-Santol	180
4-Coconut, 1-Mango	1,600	20-Kawayan, 1-Malunggay	4,700
1-Santol, 1-Malunggay	280	15-Banana Ibarra	2,100
1-Santol	180	1-Anonas	80
1-Mangga, 2-Santol, 1-Macopa, 2-Coconut	1,650	4-Malunggay, 1-Mabolo	520
1-Santol	180	1- Coconut, 1- Mango	1,000
3-Mangga, 1-Castanas	2,500	8- Banana	1,120
15-Mahogany, 12-Banana, 1-Papaya, 1-Mango, 1-Coconut	77,760	3- Banana Tree, 1- Coconut	620
1-Avocado, 6-Coconut, 1-Mangga, 1-Kaimito, 15-Banana	4,350	4- Papaya	320
3-Mangga, 15-Banana	4,500	1- Guyabano	100
Banana, 1-Mango, 1-Langka, 1-Lukban/Pomelo	1,240	3- Coconut Tree	600
10-Banana, 5-Papaya	1,800	1- Coconut Tree	200
5-Papaya	400	2- Balite Tree, 1-Mahogany Tree	11,000
7-Mangga, 1-Santol, 1-Sampaloc, 1-Avocado, 3-Guyabano	6,330	1- Mangga Tree	800
1-Santol, 1-Bamboo	410	1- Mangga Tree, 1- Ipil tree	1,800
1-Mangga, 1-Lychee, 1-Rambutan, 20-Banana, 1-Bayabas	3,900	4- Mangga Tree, 14- Banana, 3-Coconut, 2-Guyabano	5,960
1-Langka	200	1- Mango Tree	800
2-Papaya	160	2- Banana	280
10-Mangga, 7-Coconut, 7-Lucban/Pomelo, 2-Rambutan, 6-Guyabano, 2-Avocado, 4-Bayabas, 1-Calamansi	11,600	11- Banana, 1- Calamansi, 1- Coconut Tree	1,840
2-Mangga, 15, Banana, 6-Coconut, 3-Pomelo, 6-Papaya	5,680	1- Pine Tree, 4- Coconut Tree, 2- Anahaw, 2 Mangga Tree, 1- Chico, 1- Papaya	5,630
1-Mangga, 2-Santol	1,160	1- Talisay Tree, 2- Mango, 1- Malungay	2,700
4-Mangga, 26-Papaya	5,280	8- Banana	1,120
10-Banana Tree, 1-Guyabano Tree	1,500	2- Coconut Tree, 1- Avocado, 4- Mango, 4- Guyabano, 1- Langka, 1- Duhat	4,450
1-Santol	180	1- Guyabano	100
Imus			
2-Coconut, 5-Papaya, 15-Banana	2,900	1- Mangga	800
Kawit			
1-Guyabano, 1-Langka, 1-Calamansi, 1-Coconut	600	2- Coconut Tree	400
3-Coconut, 2-Papaya, 2-Banana, 1-Kamias	1,110	1- Talisay Tree	1,000
1-Guava, 1-Kamias	120	1- Talisay Tree	1,000
4-Coconut, 10-Calamansi	1,800		
20-Mahogany, 2-Santol, 1-Mango, 10-Papaya, 40-Kakawate, 5-Malunggay	106,460		
1-Papaya	80		
3-Artilis	300		
1-Papaya	80		
2-Mangga, 2-Camatchili	1,800		
1-Sampaloc	100		
5-Papaya	400		
1-Mangga	800		
4-Malunggay, 6-Guyabano, 1-Atis	1,070		
6-Papaya, 1-Langka, 5-Guyabano, 1-Sampaloc, 5-Mangga	5,280		
5-Saging	700		
		Total	384,330

Source: JICA Study Team

13.4 Resettlement Site

Expecting the resettlement site in municipality, the development cost was estimated in the following manner.

One unit size of 65 sq.m (including the basic infrastructure and facility spaces) was calculated from the existing NHA resettlement sites. Then, total land area was calculated at about 20,000 sq.m for the resettlement sites for 299 ISFs. On the other hand, assuming that 50% of the formal settler families are supposed to receive land swapping compensation, total area of the residential lot of 34,680 sq.m was calculated as the land for 289 families with 120 sq.m unit area assumed equivalent to three times as large as the standard unit area of 40 sq.m from NHA's resettlement sites. Considering the intermediate ratio of public space between subdivision development by Cavite Provincial Housing Development Management Office (PHDMO) and NHA's resettlement sites, the public space ratio in the sites is as 41.5%, and

total area for the land swapping was calculated at about 60,000 sq.m. Then, total area of these resettlement sites and the land for land swapping was calculated at about 80,000 sq.m.

Estimated the unit cost of Php 1,400/sq.m including the basic infrastructure: roads, drainages, electricity, water supply (well), sewage (septic tank) and revetment, the land development cost was calculated at Php 112,000,000 for 80,000 sq.m land. It is noted that development costs of public and social service facilities were excluded as utilizing the nearby facilities.

13.5 Graves

Unit costs of the private cemetery that the affected graves in the public cemetery will be relocated were used for the unit prices as the shelter type (surrounded by roof and wall): 33,600 pesos, the coffin type which are placed independently: 29,700 pesos, the aggregated coffin type that several coffins are stacked: 15,000 pesos. The cost by type was calculated for each at 1,881,600 pesos for 56 units of the shelter type, 13,632,300 pesos for 459 units of the independent coffin type, 1,035,000 pesos for 69 units of the aggregated coffin type, and the total 16,548,900 pesos. The total cost includes the cost for the land of the relocated graves.

13.6 Fund of the RAP Implementation Budget

The project implementer, the DPWH, is responsible for the budget of the RAP implementation costs as a part of the project cost. The ESSD together with the UPMO-FCMC will prepare the RAP budget plan, and the UPMO-FCMC will submit the budget plan to the DPWH Central Office. The UPMO-FCMC will claim expenses at an appropriate time in the RAP implementation process according to the approved RAP budget plan, and secure the budget so that they can allocate the budget quickly.

CHAPTER 14. MONITORING SYSTEM

A monitoring will be conducted to evaluate whether the resettlement activities are implemented as planned in the RAP. In the monitoring, regular data collection with analysis and reporting on the progress shall be held throughout the entire resettlement activities.

14.1 Internal Monitoring

According to the LARRIPP, the Environmental and Social Services Division (ESSD) of the DPWH shall conduct the supervision and in-house monitoring of implementation of the RAPs and will be alternately called the Internal Monitoring Agent (IMA). ESSD will assign internal staff of DPWH or local consultants as the members of IMA. Tasks of the IMA include:

- Regularly supervise and monitor the implementation of the RAPs in coordination with the Cavite First District Engineering Office (CDEO), Region IV-A Office (RO IV-A), and the City/Municipality Resettlement Implementation Committee (C/MRIC). The findings will be documented in the quarterly report to be submitted to the UPMO-FCMC.
- Verify that the re-inventory baseline information of all PAFs has been carried out and that the valuation of assets lost or damaged, the provision of compensation and other entitlements, and relocation, if any, has been carried out in accordance with the LARPIPP and the respective RAP Reports.
- Ensure that the RAP is implemented as designed and planned.
- Verify that funds for implementing the RAP are provided by the UPMO-FCMC in a timely manner and in amounts sufficient for the purpose.
- Record all grievances and their resolution and ensure that complaints are dealt with promptly.

14.2 External Monitoring

An External Monitoring Agent (EMA) will be commissioned by the UPMO-FCMC to undertake independent external monitoring and evaluation. The EMA for the Project will be either a qualified individual or a consultancy firm with qualified and experienced staff. A local NGO, an academic institution or a local consulting firm may be commissioned for the EMB.

The tasks of the EMA shall include:

- Verify results of internal monitoring;
- Verify and assess the results of the information campaign for PAFs rights and entitlements;
- Verify that the compensation process has been carried out with the procedures communicated with the PAFs during the consultations;
- Assess whether resettlement objectives have been met; specifically, whether livelihoods and living standards have been restored or enhanced;
- Assess efficiency, effectiveness, impact and sustainability of resettlement and

implementation

- Review on how compensation rates were evaluated; and
- Review of the handling of compliance and grievances cases.

14.3 Schedule of Monitoring Activities

(1) Compliance Monitoring

Purpose: To determine whether or not RAP is carried out as planned and according to its policy

Schedule: One month after receipt of Notice of Proceed for the engagement

Reporting: Inception Report and Compliance Monitoring Report

Responsible Agent: IMA/EMA

(2) Monthly Monitoring

Purpose: To regularly monitor the RAP implementation activities

Schedule: Monthly

Reporting: Quarterly Monitoring Report

Responsible Agent: IMA

(3) Semi-Annual Monitoring

Purpose: To identify whether the social and economic conditions of the PAFs are recovering or do not worsen, and to follow-up the PAFs whose living standards and/or livelihoods worsen if found by the DPWH under cooperation with the concerned LGUs and/or the support agencies.

Schedule: Every six months until the construction works end

Reporting: Semi-Annual Monitoring Report

Responsible Agent: EMA

(4) Final Evaluation

Purpose: To evaluate the implementation of the RAP.

Schedule: Three months after the completion of payments of compensation to PAFs

Reporting: Final Evaluation Report

Responsible Agent: IMA/EMA

(5) Post-Evaluation

Purpose: To determine whether the social and economic conditions of the PAFs after the implementation of the project have improved.

Schedule: One year after the completion of the project

Reporting: Post-Evaluation Report

Responsible Agent: IMA/EMA

14.4 Reporting

The ESSD prepares the monitoring reports of IMA and is accountable to the UPMO-FCMC. The EMA is accountable to the UPMO-FCMC and reports to the ESSD. The UPMO-FCMC submits copies of the monitoring reports from IMA and EMA to JICA.

14.5 Monitoring Indicators

The monitoring indicators will be set based on the ones shown in the LARRIPP in accordance with the conditions of priority projects and affected people. The main items of monitoring indicators are: i) internal monitoring: budget and timeframe, delivery of compensation and entitlements, public participation and consultation, benefit monitoring, and ii) external monitoring: basic information on PAP households, restoration of living standards, restoration of livelihoods, levels of PAP satisfaction, effectiveness of resettlement planning, other impacts (unintended impacts). Meanwhile, the preparations of resettlement sites and the grave relocations in Noveleta are specific concerns for the Project. Those activities will be monitored in both internal and external monitoring.

Table 14.1 Monitoring Indicators for Internal Monitoring

Monitoring Indicators	Basis for Indicators
1. Budget and timeframe	<ul style="list-style-type: none"> • Have all land acquisition and resettlement staff been appointed and mobilized for the field and office work on schedule? • Have capacity building and training activities been completed on schedule? • Are resettlement implementation activities being achieved against the agreed implementation plan? • Are funds for resettlement being allocated to resettlement agencies on time? • Have resettlement offices received the scheduled funds? • Have funds been disbursed according to the RAP? • Has the social preparation phase taken place as scheduled? • Has all land been acquired and occupied in time for project implementation?
2. Delivery of Compensation and Entitlements	<ul style="list-style-type: none"> • Have all PAFs received entitlements according to numbers and categories of loss set out in the entitlement matrix? • Have PAFs received payments for affected structures and lands on time? • Have PAFs losing from temporary land borrow been compensated? • Have all received the agreed transport costs, relocation costs, income substitution support and any resettlement allowances, according to schedule? • Have all replacement land plots or contracts been provided? Was the land developed as specified? Are measures in train to provide land titles to PAFs? • How many PAFs resorted to expropriation? • How many PAFs households have received land titles? • How many PAFs have received housing as per relocation options in the PAP? • Does house quality meet the standards agreed? • Have relocation sites been selected and developed as per agreed standards? • Are the PAFs occupying the new houses? • Are assistance measures being implemented as planned for host communities? • Is restoration proceeding for social infrastructure and services? • Are the PAFs able to access schools, health services, cultural sites and activities at the level of accessibility prior to resettlement? • Are income and livelihood restoration activities being implemented as set out in income restoration Plan? For example utilizing replacement land, commencement of production, numbers of PAFs trained and provided with jobs, micro-credit disbursed, number of income generating activities assisted? • Have affected businesses received entitlements including transfer and payments for net

Monitoring Indicators	Basis for Indicators
	losses resulting from lost business and stoppage of production?
3. Public Participation and Consultation	<ul style="list-style-type: none"> • Have consultations taken place as scheduled including meetings, groups, and community activities? Have appropriate resettlement leaflets been prepared and distributed? • How many PAFs know their entitlements? How many know if they have been received? • Have any PAFs used the grievance redress procedures? What were the outcomes? • Have conflicts been resolved? • Was the social preparation phase implemented?
4. Benefit Monitoring	<ul style="list-style-type: none"> • What changes have occurred in patterns of occupation, production and resources use compared to the pre-project situation? • What changes have occurred in income and expenditure patterns compared to pre-project situation? What have been the changes in cost of living compared to pre-project situation? Have PAFs' incomes kept pace with these changes? • What changes have taken place in key social and cultural parameters relating to living standards? • What changes have occurred for vulnerable groups?
5. Resettlement Site Preparation	<ul style="list-style-type: none"> • Have the concerned LGUs identified and registered ISFs in D/D stage? • Have the resettlement site development plans been designed in RAP to be reviewed in D/D stage? • Have the concerned LGUs provided ISFs resettlement sites prior to their relocation according to the plan?
6. Grave Relocation	<ul style="list-style-type: none"> • Have grave relocations been coordinated with grave owners and planned in RAP to be reviewed in D/D stage? • Have the grave relocation sites been provided prior to their relocation according to the plan?

Source: LARRIPP, DPWH

Table 14.2 Monitoring Indicators for External Monitoring

Monitoring Indicators	Basis for Indicators
1. Basic information on PAP households	<ul style="list-style-type: none"> • Location • Composition and structures, ages, education and skill levels • Gender of household head • Ethnic group • Access to health, education, utilities and other social services • Housing type • Land use and other resource ownership patterns • Occupation and employment patterns • Income sources and levels • Agricultural production data (for rural households) • Participation in neighborhood or community groups • Access to cultural sites and events • Value of all assets forming entitlements and resettlement entitlements
2. Restoration of living standards	<ul style="list-style-type: none"> • Were house compensation payments made free of depreciation, fees or transfer costs to the PPAP? • Have PAFs adopted the housing options developed? • Have perceptions of "community" been restored • Have PAFs achieved replacement of key social cultural elements?
3. Restoration of Livelihoods	<ul style="list-style-type: none"> • Were compensation payments free of deduction for depreciation, fees or transfer costs to the PAP? • Were compensation payments sufficient to replace lost assets? • Did transfer and relocation payments cover these costs? • Did income substitution allow for re-establishment of enterprises and production? • Have enterprises affected received sufficient assistance to re-establish themselves? • Have vulnerable groups been provided income-earning opportunities? Are these effective and sustainable? • Do jobs provided restore pre-project income levels and living standards?
4. Levels of PAP Satisfaction	<ul style="list-style-type: none"> • How much do PAFs know about resettlement procedures and entitlements? Do PAFs know their entitlements? • Do they know if these have been met? • How do PAFs assess the extent to which their own living standards and livelihood been restored? • How much do PAFs know about grievance procedures and conflict resolution procedures? How satisfied are those who have used said mechanisms.
5. Effectiveness of Resettlement Planning	<ul style="list-style-type: none"> • Were the PAFs and their assets correctly enumerated? • Was any land speculators assisted? • Was the time frame and budget sufficient to meet objectives? • Were entitlements too generous?

Monitoring Indicators	Basis for Indicators
	<ul style="list-style-type: none"> • Were vulnerable groups identified and assisted? • How did resettlement implementers deal with unforeseen problems? • Were the resettlement sites designed in the RAP and developed prior to PAPs' relocation before the construction starts? • Was the grave relocation planned in the RAP and done before the construction starts?
6. Other Impacts	<ul style="list-style-type: none"> • Were there unintended environmental impacts? • Were there unintended impacts on employment or incomes?

Source: LARRIPP, DPWH

CHAPTER 15. PUBLIC CONSULTATION

15.1 Public Consultation Meetings

15.1.1 LGU Coordination Meetings

The LGU Coordination meetings were held to inform and coordinate with the concerned LGUs and affected barangays the future schedule and activities that would be done for the preparation of the Resettlement Action Plan of the Project as scheduled shown in Table 15.1, and major topics of discussion are explained in Table 15.2. The proposed project was presented to the LGUs as well as the activities for the preparation of the Resettlement Action Plan (RAP) report, which included: i) DPWH's Land Acquisition Resettlement, Rehabilitation and Indigenous People Policy (LARRIPP), ii) The "Cut-Off Date" which is set to be the day of the conduct of PAF's socio-economic survey, iii) the need of a creation and formation of the City/Municipality Resettlement Implementation Committee (C/MRIC) to assist the DPWH in the implementation of the RAP. The Barangay Captains were also advised of future activities to be done in their area. The LGUs and Barangay Captains assured full support in all project undertakings and cooperate with all activities related to the project.

Table 15.1 Outline of LGU Coordination Meetings

No.	Date and Time	Venue	Target Municipality	Participant
1.	January 26, 2016 11:30 AM	King Bee Restaurant, Gen. Trias	General Trias	Number of participants: 20 persons Attribution of participants: City Planning and Development Officer – 1 City Assessor – 1 Barangay Captain – 4 Barangay Coordinator - 1
2.	January 26, 2016 2:00 PM	Municipal Hall	Rosario	Number of participants: 15 persons Attribution of participants: Municipal Planning and Development Officer – 1 Municipal Assessor – 1 Barangay Captain – 3 Barangay Secretary – 1
3.	January 27, 2016 11:30 AM	Valencia's Kitchen, Brgy. Pagasa III, Imus	Imus	Number of participants: 5 persons Attribution of participants: City Planning and Development Officer – 1 City Engineer – 1 Barangay Captain – 2 Barangay Councilor – 1
4.	February 2, 2016 10:00 AM	SB Hall, Noveleta Municipal Hall	Kawit and Noveleta	Number of participants: 26 persons Attribution of participants: Municipal Planning and Development Officer – 2 Municipal Engineer – 2 Municipal Social Welfare and Development Officer – 1 ABC President – 1 Barangay Captain – 8 Barangay Councilor – 2 Barangay Secretary – 3

Source: JICA Study Team

Table 15.2 Major Opinions of LGU Coordination Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
1.	General Trias	An existing road is parallel to the river and might be affected by widening.	Noted
		Can widening be done on the side with the revetment constructed by subdivisions to avoid roads?	Noted
		What are the benefits of the Project Affected Families with the project implementation? When will the payment be made for compensation?	Explained the Mode of land acquisition as provided in RA 8974. Assured that the payment will be made first prior to the commencement of the civil works.
		How do you assess affected properties?	Explained the mode of land acquisition as per RA 8974: Donation, Negotiated Sale (1st offer-BIR zonal value, 2nd offer current market price, and expropriation) Quit Claim (land acquired through CA 141) and other modes provided in RA 8974.
		Suggested a relocation site instead of compensation.	Explained that the relocation will only be provided to affected, qualified Informal Settlers. For formal settlers, payment of affected assets will be provided since they can afford a house and lot of their own.
		Does the DPWH require the project affected person (PAF) to submit document like tax declaration?	Explained that one of the documents required for submission by the PAF is the tax declaration, valuation for payment will be based on the tax declaration declared by the lot/land owner.
		What is the compensation for those living near the river and will be affected with easement?	There will be no compensation for structures/improvements within the river/water easement. LGUs are mandated to clear water/easement zone and relocate the families within those areas.
		Is the project coordinated with the National Irrigation Administration (NIA)?	The project is well coordinated with the NIA.
2.	Kawit	The bridge in Antel Subdivision connecting Imus and Gen. Trias might be affected. ROW belongs to Kawit. Will it be replaced if affected? There is soil erosion problem in Brgy. San Sebastian	Noted.
		Suggested to consider road maintenance during river excavation	During the implementation of the project, a contractor is required to maintain the road and cleanliness within the construction area. This will be provided and will be part of the contractor's contract.
		Suggested to provide livelihood programs like the Department of Labor and Employment (DOLE)'s program to convert the riverside as tourism area by allowing the residents to establish small enterprise that could generate income.	Informed/reminded the LGUs with the clearing of river easement particularly areas identified as danger zone. The DPWH with the LGUs are now working together to clear and relocate families within the prescribed easement along river side.
		Inform and coordinate with concerned barangays about project final alignment and since they are planning to improve river revetments in Ylang River.	Noted.
3.	Noveleta	The project will affect a lot of structures and residential areas.	This project is different. We have requested the Japan government to address flooding issues in Cavite and this is the study that they have made. They have studied to prioritize the alignment that has the least impacts.
		Policies of compensation	As provided in the DPWH Land Acquisition Resettlement, Rehabilitation and Ingenious People's (LARRIP) policy states that "sufficient compensation and assistance will be given to property owner for lost assets to help them improve or at least maintain their pre project standard of living"
		Option to relocate within municipality	As per RA 7279, only qualified Informal Settlers are

Table 15.2 Major Opinions of LGU Coordination Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
		Resettlement sites	subject for relocation sites. If it requires to relocate, or if there is a need to relocate ISFs, the DPWH will help facilitate and coordinate with the Provincial Government of Cavite on this matter.
4.	Imus	Requested to leave a copy of the map for reference. Roads should be considered in river widening since they are parallel with the river, varies from 0-5m in distance.	Noted
		Why not dredge the river instead of widening? Widening will affect the bridge in Antel Subdivision. If roads will not be compromised in widening, only Gen. Trias will be affected, not Imus.	Noted
		CALAX (Cavite-Laguna Expressway) has already been awarded and the Project alignment along Imus Ylang River might overlap.	The Cavite Industrial Area Flood Management Project does not in any way overlap with the CALAX project under DPWH Private Public Partnership (PPP). The alignment is different. It will not affect CALAX Project.
		Whose concern is the ROW?	The acquisition and maintenance of ROW is under the DPWH mandate. The cost shall be allocated and disbursed by the DPWH in foreign assisted project including CIAFMP.
5.	Rosario	Ligtong IV is not affected based on the proposed project alignment. But all flood coming from Brgy. Bagbag I and II and Ligtong I and II go to Ligtong IV and the river is already too narrow. Adding the posts on the river which caused it to be even narrower than it already is. The river water flow during heavy rains slows on that part of the river causing flood. It might help if that part of the river is widened. Brgy. Chairman suggested that if widening can suffice for flood control then there's no need for a new diversion channel. Only widening of the whole stretch of Maalimango Creek.	Noted
		Take into consideration the Wu Kong Company construction of an 8ft deep and 6m wide flood control connected to Maalimango Creek. Ever since they built it, flood isn't as worse as before in nearby barangays.	Noted
		If a Diversion Channel and a Diversion Drainage are to be constructed at 100 meters wide, a lot of private properties will be affected including RCPJC, Love cemetery and others. Most residents are Class B in the barangay and might be harder to convince. Other houses are of ages, mostly inheritance, and compensation might not replace their sentimental value. A road will also be affected.	Noted
		What are the factors to be considered to help the affected families?	Advised the LGU Officials to get the cooperation of the families affected by the projects to join the public consultation and get involved in all RAP activities for them to understand the Acquisition policy of the Department. Likewise for the affected families, to prepare and submit pertinent documents to facilitate and process their claims.

Source: JICA Study Team

15.1.2 1st Public Consultation Meetings

The 1st public consultation meetings were held as scheduled shown in Table 15.3, and major topics of discussion are explained in Table 15.4. The meetings were designed to inform the Project Affected Families (PAFs) with respect to the LARRIPP of the DPWH as per RA 8974, and other topics including: (i) the concept and objective of the project; (ii) definition of severe and marginal impacts; (iii) importance of tagging the structures to be affected; (iv) the need to photograph the PAFs, together with the structures and improvements to be affected; (v) conduct of census and socio-economic survey of PAFs; and (vi) the cut-off date.

As for Rosario municipality, although the 1st public consultation meeting was requested in February 2016 after the LGU coordination meetings, the former mayor requested to hold it after the election. In a coordination meeting with new mayor after the election, the mayor expressed disapproval to the project because: i) the project scale is too large for the municipality; ii) there is a concern of conflict among the affected barangays; iii) the administrative district cannot accommodate relocate peoples. After that, the Cavite provincial governor coordinated with the new mayor and JST explained the the mayor once again the importance of the flood control project to protect urban areas and CEZ from the flooding damage. Then, the 1st public consultation meeting was held in November 2016 with the consent to the results of F/S.

For Noveleta, two 1st public consultation meetings were held on demand from the mayor as the follow-up meeting because some absent residents of the first public consultation meeting were concerned of that the construction of project would start soon after the first public consultation.

There were 397 participants, of which 219 were female and 178 were male. The main opinions from the participants in each public consultation are summarized as follows.

Noveleta: there were opinions mainly expressed about the alignment of diversion channel, compensation policies for affected people including informal settlers, project contents/schedule, function and effect of the retarding basins, the influence of the structures inside the rivers on the flood.

Kawit: there were opinions mainly expressed about the scale of river improvement project, impacts on the neighboring roads, impact on the residence along the river, valuation policies for the affected land and structures.

General Trias: there were opinions mainly expressed about the problem of traffic congestion during construction, subjects to compensation such as land and structures.

Rosario: there were opinions mainly expressed about compensation policies for affected people, objections to the project, the scale of diversion channel, extent of the project affected area, sentiments of residents on the current residence, suggestions for dredging in the rivers rather than the project, consideration for formal settlers and facilitation of resettlement of informal settlers, valuation policies for the affected land and structures, the influence of the structures inside the rivers on the flood, concern for land acquisition and resettlement.

Table 15.3 Outline of 1st Public Consultation Meeting

No.	Date and Time	Venue	Target Municipality	Target Barangay	Participant
1.	February 24, 2016 9:00 AM	Rooftop, Noveleta Municipal Hall	Noveleta	Barangay Sta. Rosa I Barangay Sta. Rosa II Barangay Salcedo I Barangay Salcedo II Barangay San Antonio II Barangay San Rafael I Barangay San Rafael II	Number of participants: 133 persons
2.	February 26, 2016 9:00 AM	Municipal Hall	Kawit	Brgy. San Sebastian	Number of participants: 18 persons
3.	March 4, 2016 9:00 AM	3 rd Floor, Gen. Trias City Hall	General Trias	Barangay Prinza Pob Barangay Pinagtipunan Barangay Tapia Barangay Sta. Clara Barangay Pasong Camachile	Number of participants: 16 persons
4.	March 5, 2016 9:00 AM	Antel Subdivision Sports Club, Gen. Trias	General Trias	Barangay Tejero Barangay Bacao I Barangay Bacao II	Number of participants: 11 persons
5.	April 20, 2016 9:45 AM	Rooftop, Noveleta Municipal Hall	Noveleta	Barangay Sta. Rosa I Barangay Sta. Rosa II Barangay Salcedo I Barangay Salcedo II Barangay San Antonio II Barangay San Rafael I Barangay San Rafael II	Number of participants: 112 persons
6.	November 4, 2016 3:00 PM	Ligtong II Covered Court, Rosario, Cavite	Rosario	Barangay Ligtong III Barangay Ligtong II	Number of participants: 26 persons Attribution of participants:
7.	November 23, 2016 10:00 AM	Ligtong II Covered Court, Rosario, Cavite	Rosario	Barangay Ligtong III Barangay Ligtong II	Number of participants: 59 persons Attribution of participants: Barangay Captain-1 Barangay Health Worker-1
8.	November 23, 2016 2:00 PM	Tejeros Convention Covered Court, Rosario, Cavite	Rosario	Barangay Tejeros Convention Barangay Bagbag I	Number of participants: 12 persons Attribution of participants: Barangay Captain-1 Barangay Secretary-1 Barangay Treasurer-1 Barangay Coordinator-2 Youth Spokesperson-1

Source: JICA Study Team

Table 15.4 Major Opinions of 1st Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
1.	Noveleta	Requested for the map indicating the alignment of the project particularly in the two barangays, Salcedo II and Sta Rosa II.	The requested map will be provided to the Municipal Engineering Office accessible to all concern or interested PAFs.
		Believe that one of the causes of flooding in the area is due to the curvature of the existing rivers and suggested that this be include in the study.	Assured that the JICA experts will consider all parameters/aspects that causes flooding in the area and to come up with the proposed appropriate measures to control if not eradicate flooding.
		Asked if Dam is also proposed for this project.	Informed the participants that there is no Dam proposed for this project.
		Asked for the alignment of diversion channel.	Explained that initial alignment proposed for diversion channel for this study is located in the municipality of Noveleta with approximate length of 2 kms and a width of 100 meters. It was explained

Table 15.4 Major Opinions of 1st Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
			further that final alignment will be determined after the conduct of the detailed engineering survey during the detailed design stage of the project.
		Asked about the lot acquired from a person who is now leaving abroad and discovered that the subject lot belongs to a Philippine Deposit Insurance Corporation (PDIC).	Informed the participants that claims will be process for compensation after the validation of legal documents as proof of ownership.
		Asked if the affected commercial establishment can be compensated through 'exchange or barter'	Explained that exchange or barter can only be utilized for affected lot in exchange with national abandoned road. For business or commercial establishment, the DPWH policy will provide compensation with affected structures/lots and additional income lost will be provided subject to the provisions under the DPWH DO 327 s 2003.
		Acquired rights over the lot affected by the project owns by PDIC.	Advised the participants similar with this case to process the acquired property and apply for titling. The DPWH will only entertained and process those affected lots with legal documents as proof of ownership.
		Asked if there is a relocation provided for the poor families affected by the project, especially those residing along the river.	Informed the participants that as per RA 7279, qualified Informal Settler Families (ISF) will be provided with relocation.
2.	Kawit	Asked the width of the proposed widening of the river.	Widening of approximately 30 meters is proposed improvement for Ylang Ylang and Rio Grande rivers.
		Informed the RAP Team (DPWH/Consultants) that there is an existing barangay road parallel along the river and that river widening of 30 m might affect the road.	Informed the participants that the DPWH policy ensures that adverse social impact of road projects are avoided, minimized and/or mitigated. Ensure to the participants that this concern shall be considered in the study.
		Express concern and fear of losing the road along the river.	Explained to the participants that the DPWH will avoid adverse impact such as this. If, just in case, the project requires to remove the road, then appropriate measures shall be implemented or road replacement will be provided to mitigate the impacts.
		A lot of residential structures were built along the river banks.	The affected families will be finally fixed only through the socio economic and inventory of affected structures/assets survey during the detailed design phase..
		What is the basis of assessing affected lot and structures?	Explained further the Land Acquisition Resettlement Rehabilitation and Indigenous Peoples (LARRIP) Policy of the DPWH as per RA 8974, particularly on the modes and process of acquisition for affected properties: Lots: negotiated sale or purchased by using BIR zonal value as first offer, if the offer is not acceptable to the lot owner, DPWH will proceed with the 2nd offer using the fair market value. Structure and other improvements, the basis should be at 100% replacement cost.
3. 4.	General Trias	Asked if during project construction/implementation some problems on ROW may arise	Explained that one of the purpose in the conduct of public consultation is to gather all concerns/issues at the early stage of the project phase and to provide solution so not to encounter ROW problems during

Table 15.4 Major Opinions of 1st Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
			the implementation stage. Further, the City Resettlement Implementation Committee (CRIC) that will be formed, will not only created to assist the DPWH in the RAP implementation but act as Grievance Redress Committee to provide solution on problems encountered during the construction of the project.
		Informed and shared their experience in the on-going drainage construction in their barangay that stopped due to ROW problem and currently creates heavy traffic in the area.	Explained the importance and necessity to prepare and implement a Resettlement Action Plan prior to construction. Explained further that for smooth implementation/construction of the project, ROW should be acquired and cleared prior to issuance of Notice to Proceed to the winning bidder as per DPWH DO 5, 2003.
		Informed and shared that they are already attended Public Consultation for DPWH Flood Control Project. Further explained that their structures were already surveyed and assessed.	Explained that they might be identified as affected PAFs by the DPWH Flood Control Project under supplemental agreement of FRIMP. Assured that this will be verified by the consultant.
		Asked to whom payment of lot and structure be awarded. A certain Ferrer owns the lot but not the structure.	Explained that validation of legal documents as proof of ownership will be undertaken prior to processing of compensation, as per DPWH DO 34, s 2003. Whoever owns the affected property/assets shall receive the compensation.
5.	Noveleta	There are many residents who failed to attend the previous presentations and therefore do not know the affected areas	Mentioned that the invitations for the previous presentations were coursed through the barangay but there might be the miscommunication. She added that at this stage of the study, affected structures cannot be finalized yet because the detailed design study is yet to be conducted
		Unida Christian church is concerned that their church and school will be affected by the project. He mentioned that if residents would be adversely affected by the project, then they would rather just deal with the occasional floods than be disenfranchised.	Showed the map and reiterated that the affected structures cannot be finalized yet, but made assurance that the project would veer away from important structures such as churches and schools.
		Concern that the objectives of the meeting was not clear to him	As stated at the beginning of the meeting, the objectives of the meeting are to explain about the project and listen the opinions of the residents including their anxieties and apprehension.
		Unido Church expressed relief over the explanation of the consultant team that most of their fears were just from unfounded rumors. He requested however that the project engineers exert effort to ensure that the structural integrity of their schools and churches	Ensured that engineering standards shall be followed in the design and construction works.
		Inquired about the fate of the business in the area	Explained that the project will first ensure to avoid adverse impacts of the project, and if it can't be avoided, the project shall attempt to mitigate the adverse impacts, and provide compensation as provided by law.
		Inquired about the sufficiency of the compensation for the needs of the people	The attendees were assured that they will be provided with just compensation and that the objective of the project and the government is to maintain, if not improve the living standards of the

Table 15.4 Major Opinions of 1st Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
			people
		Followed up on the schedule as to when then can find out the final plans for the project	Narrated the project schedule that their team shall present the findings of the feasibility study in July (2016) and will undergo the review and approval process for a project
		Roland de Guia of Unida Church thanked the presenters for clarifying the scope of the project because they were worried about the rumors spreading about it. He mentioned that the lesson learned in all these is that it is not right to spread rumors	Thanked him
		Expressed concern regarding the retarding basins in Imus and General Trias, noting that their municipality is lower than the said municipalities and that if the retarding basin releases water, they will be the recipient of the released water	Explained the mechanics of a retarding basin of just delaying the flow of water and releasing only when there is no water downstream
		Inquired if they will still be allowed to made structural improvements in their properties	Noted that the project will be implemented within two years and the improvements would be a waste.
		Requested to study the structure below the newly constructed bridge along Ylang-Ylang river that is preventing the smooth flow of water. He noted that the floods worsened since the construction of the said bridge	The municipal engineer said that the river improvement includes the removal of the mentioned obstruction
6.	Rosario	The participants noted that the Gawad Kalinga (GK) Project will be affected	They were told that the initial plan for the project was based on maps that did not show the GK Project and the project will consider this new information
		The participants noted that based on the maps shown, their areas would not be affected by the project	This was noted
		The participants suggested that a house-to-house survey should be conducted so that all residents would be aware of the project and to know their perceptions on the project	The participants were told that a survey indeed would be conducted in preparation of the Resettlement Action Plan
		The participants inquired if there would be compensation for affected families	They were told that affected families would be properly compensated as required by law
		The participants voiced their relief with the information that the project is still in the conceptual phase because they received information that it's for immediate implementation.	They were told that the public consultation was conducted to properly inform the residents
		The participants asked how they can avail of the compensation if they do not have a title for their properties but only tax declaration	DPWH will recognize continuous tax declaration payments for at least 30 years
		What if it's below 30 years and they do not have complete documentation?	The participants were advised to secure and prepare all documents they have and the DPWH will evaluate It on a case-to-case basis
		The participants inquired if they would get compensation if they do not own the land, but they were the ones who constructed the house	Yes, provided they satisfied the criteria for compensation
		The participants inquired about the eligibility for relocation	DPWH noted that another option for compensation is relocation. But since PAPs would be transferred to a new housing unit, the replacement cost payment would not apply to them. However, they were told that DPWH would not be the one evaluating the

Table 15.4 Major Opinions of 1st Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
			eligibility of PAPs for relocation because that is the mandate of the National Housing Authority.
		The participants inquired if they can demand their asking price for compensation	DPWH responded that if they have proper documentation for their asking price, they should show it to the appraiser.
		There were residents, who assembled due to the miscommunication. Those residents revealed their anxieties about the project.	They can schedule a new meeting and DPWH will present the project as well as the compensation for affected individuals. The DPWH also welcomes their recommendations and identify alternatives for the project.
7.	Rosario	The barangay captain of Brgy Ligdong II seek clarification on the presented map to identify the affected areas. He noted that earlier, he got wind of an information stating that the project would require clearing of 100 meters to widen the river.	The map was shown again and clarified that only 25 meters is needed to widen the river.
8.		The Barangay Captain noted that 25 meters is still too wide, concerned that a large number of his constituents would be affected. He also noted that the project would traverse the fishponds at the downstream end of the river and that the owner of the property is present in the public consultation. In light of these clarifications and concerns, he enjoined his constituents to voice out there questions.	The comment will be re-examined and incorporated into the detailed design as required.
		The property owner of the fishponds and lots acknowledged by the Brgy Captain took the floor and asked for a copy of the map with the planned developments and insist on being provided the said maps as soon as possible so that they can study it and asses the impacts on their properties	The request was duly noted and the DPWH and Consultants committed to provide them copies of the map, with note that the plans are not yet final and the alignment as well as the impact area can still change.
		The same property owner inquired if this is the same project presented in Noveleta, voicing her concern that there may have been a different plan for the neighboring town but was altered favoring the said town.	The participants were assured that the presented plan was the same and that the proposed developments were developed without favoring certain area or personality, but based on careful technical study of the project area.
		The same property owner noted that they all grew up in the town and most of them worked hard to acquire their properties. Some of them worked in other countries away from their families so that they can retire in peace, but if they would be resettled, it would be very hard for them to start a new life in another location and that they would have difficulties looking for lots as good as their current lots. She voiced strong opposition for the project which the other participants applauding her speech. She suggested that instead of constructing a diversion channel, the existing river be dredged and the informal settlers relocated to return the river to its former depth and width.	The project is indispensable. The comments on the river dredging is duly noted.
		Another resident took the floor and narrated that she's 62 years old and that in her years of stay in the barangay, they were not affected by the flood when the river was still wide and deep. Their	The consultants thanked the participants for their input, noting that these information are very useful for them in designing the project. She added that the proposed developments were developed primarily

Table 15.4 Major Opinions of 1st Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
		problems with the flooding started when the river was blocked by the informal settlers. She seconded the recommendation to dredge the river	through secondary maps and that since the project is only in the preliminary stage of development, no input from the affected individuals were gathered yet. The participants were assured that these will be taken into consideration. She added that a household survey will be conducted to find out the perception of the PAPs for the project where they can indicate their recommendations and opinions on the project.
		After the presentation on the RAP activities, the property owner mentioned earlier inquired about the meaning of Right-of-Way	RoW was defined to be the route that the project would traverse that the government needs to acquire to be used for the project
		The same property owner noted that the presentation indicated that the DPWH guidelines pertain only to "road" and not "river"	It was clarified that the guidelines pertain to government infrastructure project and not just road, but includes also river improvement projects
		"Who would determine the value of the property?"	"A licensed independent property appraiser will be hired to determine the value of the properties."
		"What if we do not agree with the appraised value?"	"If you have basis for your requested value, you can show documentation to the appraiser to help with determining the value of your property."
		"Who will have the final say on the value of the property?"	"If DPWH and the property owner cannot reach an agreement on the purchase of the property, we shall undergo an expropriation proceeding and it would be the court that would determine the value of the property."
		The property owner addressed the Japanese consultant to consider the river dredging which would involve resettling the informal settlers on the riverbanks, and widening and digging the river.	The request was duly noted by the Japanese consultant and thank the participant for the input, noting that the presented plan is the optimum plan after considering various alternatives, and that such plan was selected based on the least number of affected households.
		The property owner added that those living along the riverbanks are informal settlers and it is not fair for property owners paying taxes to sacrifice their properties. She added that it would be cheaper to just resettle the informal settlers.	The comment was duly noted with assurance that after the household survey, the engineering plans will consider the actual number of affected household as well as the status of ownership of the property.
		A resident noted that the Maalimango Bridge's base is blocking the flow of the river, contributing to flooding	The consultants informed the participants that this was already noted and would be addressed by the project
		A resident inquired about the families that would be affected by the project	The RAP activities was presented
		A community leader noted that they regularly conduct clearing of the creek, but they really can't do anything about the flooding. Whenever there's rain, it will always flood.	The comment was duly noted and the consultant mentioned that such is the problem that the project wants to address.
		A participant inquired if they can still get compensation if they do not have title for their lot	The affected individuals can still present tax declaration as proof of ownership
		Can informal settlers avail of compensation?	If the individual satisfies the requirements of the NHA then they can avail of the relocation
		The title is still under the name of the deceased parent	The siblings can assign one representative to negotiate with DPWH.

Source: JICA Study Team

15.1.3 2nd Public Consultation Meetings

The 2nd public consultation meetings were held as scheduled shown in Table 15.5, and major topics of discussion are explained in Table 15.6.

In the public consultation meetings, DPWH presented the history of the flood occurrence situation in Cavite Province, the flooding simulation model based on a 10-year hydrological data, maps showing areas affected by the previous flooding as well as damages to life and property. DPWH also explained the project components proposed as the flood countermeasure project, the possible affected areas and structures, the project implementation schedule, and the estimated project cost. DPWH also explained the procedures/policies of land acquisition, resettlement and compensation for assets affected by the project, the legal framework of land acquisition and resettlement. The resettlement activities and schedules were also discussed.

In Noveleta, the chief staff of the municipality stated that: this project is still under the study and in the preparatory stage; the project will start on 2020; it is still a long time; the Mayor of Noveleta and DPWH agreed that all informal families will be moved to a resettlement site and provided houses with rights and titles before the project starts; the informal families will not be informal; the resettlement site will be developed in Noveleta.

There were 252 participants, of which 103 were female and 149 were male. The main opinions from the participants in each public consultation are summarized as follows.

General Trias: there were opinions mainly expressed about suggestions for cleaning garbage and dredging in the rivers rather than the river widening as not to involve land acquisition and resettlement, concerns about the existing structures in the rivers, compensation policies.

Kawit: there were opinions mainly expressed about Antel subdivision area extends into Ylang-Ylang River, neighboring area such as within the barangay was preferable in the case of resettlement. On the other hand, a resident representative of Barangay San Sebastian on the right bank of Ylang-Ylang River delivered DPWH a letter signed by the residents stating their requirements on the project. The representative did not participate in the meeting and recommended not to push through with the planned river widening. Instead, he suggested to dredge the bay area in Kawit.

Rosario: there were opinions mainly expressed about suggestions for cleaning garbage and dredging in the rivers rather than the river widening as not to involve land acquisition and resettlement, concern for land acquisition and resettlement, and sentiments of residents on the current residence.

Noveleta: there were opinions mainly expressed about the reasons and concerns on the large scale (area) and the alignment of the diversion channel, necessity of environmental approval from DENR, suggestions for cleaning garbage and dredging in the rivers, concern about the influence of the structures inside the rivers on the flood, concern on the capacity of the rivers to drain rainwater, development control in the upstream area, more consideration to the formal residents.

Table 15.5 Outline of 2nd Public Consultation Meetings

No.	Date and Time	Venue	Target Municipality	Participant
1.	March 15, 2017 9:30 AM	GSO Conference Room, GSO Building, Gen. Trias City, Cavite	Gen. Trias (Upper)	Number of participants: 30 persons Attribution of participants: Barangay Captain – 14 Barangay Councilor – 4 Barangay Secretary – 1
2.	March 15, 2017 1:30 PM	GSO Conference Room, GSO Building, Gen. Trias City, Cavite	Gen. Trias (Lower) Kawit, Imus	Number of participants: 5 persons Attribution of participants: City Planning and Development Office – 1 Barangay Councilor – 2
3.	March 17, 2017 9:00 AM	Ligtong II Covered Court, Rosario, Cavite	Rosario	Number of participants: 69 persons Attribution of participants: Barangay Captain – 1 Barangay Councilor – 1
4.	April 4, 2017 9:30 AM	Poblacion Covered Court, Noveleta, Cavite	Noveleta	Number of participants: 70 persons Attribution of participants: Municipal Chief of Staff – 1 Barangay Captain – 3 Barangay Councilor – 7
5.	April 4, 2017 1:00 PM	Poblacion Covered Court, Noveleta, Cavite	Noveleta	Number of participants: 100 persons Attribution of participants: Municipal Chief of Staff – 1 Barangay Captain – 2

Source: JICA Study Team

Table 15.6 Major Opinions of 2nd Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
1.	General Trias	If the project would be implemented in 2021, he is concerned that it may be too late as the houses along the river are already at the edge and in danger of collapsing. However, he added that if the project would involve demolishing the said houses, the project proponents would not be helping those people. He suggested not to move the houses and existing lots, but just to clean the river, make it deeper, and construct riprap (revetment).	Took note of the suggestion. A detailed engineering design would be prepared to ascertain the ideal width of the river based on the hydrological data. Only upon the completion of the detailed engineering design can the project ascertain the actual houses/structures and lots that would be affected by the project.
		How wide is the easement needed for the river widening?	It will depend on the detailed design, based on the studies conducted by engineers. These shall be communicated to affected families and other stakeholders.
		If the property would need to be acquired by the government, there is not much they can do. How much would be the compensation for the properties?	The next part of the presentation would address the concern.
		There are many solid wastes in their river and is requesting the project includes cleanup of said river and the Prinza Dam.	Cleanup and dredging is included in the project.
		There's an ongoing riprap construction project in their area. How would the proposed project affect this ongoing project?	If there's an ongoing project, it will complement the proposed project and it will be incorporated in the plan.

Table 15.6 Major Opinions of 2nd Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
		<p>Where the ongoing riprap is being constructed and where the proposed project would be implemented. The participants listed the following in their experiences in the flooding:</p> <ol style="list-style-type: none"> 1. The floodwaters overflow to the roads 2. The river does not flow freely because of the garbage and other obstructions 3. The Prinza Dam's height is high that waters do not flow downriver <p>It was recommended that the project address the dam in its studies.</p>	Took note of the recommendations.
		It would be better if the Japanese designers as well as a representative from the National Irrigation Authority be present in public consultations and coordinating with one another.	Agreed with the recommendations, but added that the project study team and designers are coordinating with other stakeholders.
		Planted banana in the river banks without land ownership can be compensated?	Based on the policies of the government, it be compensated for the trees planted.
2.	General Trias, Kawit	The Antel Subdivision encroached in the river which is the reason why it is overflowing.	The comment was noted and the study will review property lines.
		The residents do not want to relocate to another area and wants to stay. If they would be relocated, they prefer staying in the barangay, but there are no more available lots there.	The comment was noted. The resident that if ever they will be relocated, they will be given just compensation for their properties, only the Department can't provide them a figure just yet because the affected structures and lots are still not yet identified.
		They were clarified by the presentation because they initially thought that they no longer have any recourse but to surrender their properties and accept whatever the government would offer them, but because of the presentation, they found out that it's not the case.	The government will hear their concerns and that they actually more empowered to determine the directions of the project.
3.	Rosario	Why don't you just pick an area where there is no houses?	The current alignment is based on review of hydrological data and existing maps. The alignment may still change during the detailed engineering design stage, but in general, it will follow the path of the river and based on existing topography while considering a path that would affect the least number of structures.
		Is there no other option but to widen the river?	The barangay captain explained to the residents the path indicated in the map, to the extent of identifying the house owner of each affected structures. He mentioned that even his house will be affected.
		This project seem to be connected with the Noveleta project? We heard that (the Noveleta residents) are no longer complaining and you stopped (the proposal) there because you did not get positive response there?	The people opposing the project in that area, it was later found out, would not be affected by the project, not because they opposed the project. The invited attendees were not affected. That's why do not depend on the presented map because this is still just a feasibility study. The project will still conduct a detailed engineering design wherein a parcellary survey will be conducted to identify the properties that would actually be affected. The barangay captain said that although this is just under study, the proposed alignment already

Table 15.6 Major Opinions of 2nd Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
			shows the least number of structures that will be affected and at the end of the day, there will still be houses that will be affected. He mentioned that he feels sorry for the residents.
		If you were in our position, would you agree to relocate?	We understand your concern. If it were us, we will also oppose it. But that’s the reason why we are conducting a public consultation: to clarify these matters.
		Why don’t you just clear the river and dig it?	We are taking notes of these suggestions, that’s why we are here. We shall consider those recommendations.
		The real cause of the flood is that the river is too narrow and too shallow. But if it will be cleared, that would be enough to prevent the floods.	We take note of that. We also heard from the previous consultation that there are people who erected structures on the river itself.
		That’s the cause of flooding, not what your engineers are saying. Because (with what the engineers are saying) people would lose their houses. And if they do, how would the government pay for their house?	That’s the topic of the next presentation (Social safeguards and resettlement concerns)
		Why is it that there’s a proposed diversion route that runs side by side with the main river? Is it not redundant?	The diversion route is for the drainage system while the main river is for the water flow from upstream. There are two routes, because they serve different functions
		You are giving justice to the less privileged, how about giving justice to the taxpayers? What justice can you give?	We understand what you are saying. That’s why we are asking you and recording it.
		We hope that resettlement will not be forced.	The DPWH personnel discussed the concept of eminent domain wherein if the government would need the property for the common good, then the government may imposed that.
		When we bought our lands, we did not ask the government to help us, but when the government needs the land, we are obliged to give our land. That is not fair.	But the Bill of Rights contradict that in saying that the government cannot acquire a property without just compensation. The barangay captain explained the eminent domain is in the local code, as long as the land will be used for the greater good.
		If we oppose the project, but the government says that they will get the land for the project, this consultation will be meaningless	This public consultation is to collect your ideas on the project. You mentioned to just widen the river and to divert it, this is the only way we can learn about those suggestions. We will also put such cautious theory into our record.
		After the second consultation, what will happen? How many consultations are needed?	As long as there are changes in the plans, we will go back to present the said changes
		If the people do not really like the project, what would you do?	We will report the comments. The project is still in the decision making process. It’s not just the DPWH who would decide on this. This will be elevated to the NEDA and other agencies.
		Was there an instance that the people oppose the project but it still pushed through?	It goes both ways. There are positive impacts of the project and there are negative impacts. The government will weigh the pros and cons. There are the projects that were pushed through despite the opposition. But our role is to sincerely answer to such contrary indication and make efforts to get understanding

Table 15.6 Major Opinions of 2nd Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
		A resident narrated the experience of her cousin that the government acquired his property for a road project, but he did not get compensation from the government and her said cousin is already dead. She then addressed her neighbors to just fight it even in courts. QC: for (informal settlers), they would agree with this project because they will get benefits. But us, who were born here, it is very painful because we grew up here. So please tell them (the government) that.	We take note and understand that it's difficult to put an amount on sentimental value.
		Does our mayor know that you are doing all these?	We are coordinating with the local government
		It would be better if the municipal engineer is present in this presentation	We sent invitation to the municipal engineer
		Can we go directly to the governor?	Yes, but it would by-pass the mayor
		A government project that would be destroyed because of the project and asked why the government is doing that.	That's why we are studying it
		Does your study consider us?	The residents were reassured that the reason why the public consultation is being held is to consider the sentiments of the people
4.	Noveleta Morning Session	Regarding the involvement of JICA in the project, if whether or not the agency has some vested interest in the project to help the Japanese companies in CEZ with the traffic problem; why the required area for the project is so big; and if the project already have clearance from the DENR.	JICA's role was explained, mentioning that the agency provides cooperation not just for Cavite projects, but also other projects in the Philippines. It was also explained that the objective of the study is to recommend solutions to the flooding problems in the area, not just the traffic. Regarding the participation of DENR, it was explained that there are coordination's with the DENR.
		There should be prior clearance with the DENR before doing the public consultations.	The study also has an environmental impact assessment component being done together with the resettlement planning and master-planning and that an environmental compliance certificate will be applied for prior to implementation of the project.
		Why the presented flooding damages only include incidences after 2006 and not the earlier incidences?	The damages review do include prior incidences and that in flooding studies, more recent information is more relevant in designing flooding mitigation measures.
		If the study team studied the effects of the construction of a flyover (along Antero Soriano R-1 Highway) that impedes the flow of (Ylang-ylang River) which is the cause of the flooding.	The observation was noted and the resident was assured that the said observation would be relayed to the design team. The resident was also told that in the study, the effects of structures in the flow of water were also considered, but this specific concern would be looked into if it was considered.
		Regarding the socio-economic survey for the team to breakdown per barangay that was covered by the study.	The Land Acquisition and Resettlement Plan includes conduct of socio-economic and perception surveys that it would cover all affected individuals, in compliance with the applicable laws on land acquisition and resettlement.
		Why the need to excavate a very large area in their municipality?	The study considered a number of alternative alignments and plans coming up with the most effective scheme with the least impacts to people

Table 15.6 Major Opinions of 2nd Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
			and properties.
		If they can secure a copy of the said reports.	The local government would furnish a copy of the report which they can access.
		Why the need to excavate a wide diversion channel when upstream, there would be no river widening, further insinuating that there's a factor in such a plan that the presenters are not disclosing. The revenue that Japanese companies in CEZ are losing because of the traffic that the diversion channel will be used to transport the goods from CEZ. The main cause of the flooding problem is the post of the above-mentioned flyover and that the study should attend to it by suggesting to remove the post that's blocking the river.	The observation of the resident was noted. The objective of the study is to mitigate the flooding problem.
		A Franciscan nun voiced opposition to the project and explaining that the land was created by God and should never be touched by man and that natural disasters are part of God's plans. The root of the problem is corruption.	The commentary of the resident was noted.
		The residents are not allowing the project. It would be disastrous. A project should improve lives of everybody. In their experience, a flood in their area would only last a day or just a few hours, so flooding is not much of a problem for them, compared with other areas that experience flooding every time it rains. It was recommended focusing on those areas instead. In their area, they have no problems with strong rains. They do not experience floods during strong rains. The only time they experience flood is when the dam (NIA dam) releases water. The resident strongly lamented that the project does not take into consideration their circumstances. It was recommended instead the construction of breakwater to arrest overflowing of the river..	The commentary of the resident was noted. The team are conducting a public consultation for the purpose of soliciting the views of the project-affected individuals.
		How their feedback can be relayed to concerned offices?	The proceedings are being recorded.
		According to the presenter, the designers intend to plan the project to affect the least number of people. In Barangay Sta Rosa II, there is a vacant land there. As far as he knows, the original design was planned to go there. Why the plan was changed and now the alignment would pass through residential houses.	The map was shown again to show the subject area. The DPWH explained that the alignment actually passes through fewer houses.
		Even though they do not agree with the project, there is little that they can do to stop it. He inquired instead on the compensation that the government would offer to them.	The DPWH would offer current market value for the house.
		Where the project would actually be constructed and why the need for a large area to be excavated and asked if it's possible to reduce the width of the of diversion channel.	The maps was shown again to show the exact location of the proposed channel showing that the plan actually traverses a path with the least number of affected houses. The chief of staff of the municipal mayor took the

Table 15.6 Major Opinions of 2nd Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
			mic again to give the assurance of the mayor that the informal settlers will be relocated in a developed area before the project starts and that the property owners would be given the current market value for their houses.
5.	Noveleta Afternoon Session	<p>We recognize that the project was studied exhaustively, but would like to inquire if the study team conducted a detailed study of the river. I has been a resident of the municipality since 1974 and has grown to love the municipality and that I know that the planned diversion channel would pose a big impact on the residents and the municipality. So, instead, she appealed to please study why the river has become constricted and cannot handle the flow of water during rains. She said that the major factor in the flooding is the poor waste management and that it is so difficult to discipline the people. She recommended to consider first a program to instill discipline among the people before the floodway would be constructed. The problem, she lamented, is the implementation of proper waste management. "This should start with you (Addressing the government representatives, both LGU and the DPWH). There are many programs like the Sagip-Ilog, where is it? Shouldn't the government implement it? Every year, this is our problem. The river becomes narrow because of garbage. I just passed by it earlier. And Antel (Grand Village) reclaimed the river, no one complained. Why? Is (the property they reclaimed) not part of the river? That's one of my questions. If the barangay is aware of this, the river would not be constricted. Let's remove the garbage in the river. Let's start with the barangay. Let's clean our barangay, clean the canals. Let's just help each other, start with ourselves, and probably we would not need that floodway.</p> <p>The residents do not really need the diversion channel for the flood because they are already ready to the flood. Another alignment could run through the area occupied by informal settlers. So, it is recommended that the project pass through those areas</p> <p>There are three alignments that the project can choose from. Any of the options will have affected families. It was requested that if they will be resettled, it should be within the town too. The excavated materials can be used to reclaim part of the shore to be used as resettlement sites.</p> <p>Those areas already have residents. It is better to just construct a new area.</p>	<p>Other than the structural measures, the project also involves non-structural measures which include the mentioned waste management program as well as river de-clogging, mentioning that a flood management committee composed of the local government, other government agencies, and people's organizations, will manage the problems like solid waste. As for the river, the presented plan is just one of the plans that was deemed with the least impact. A breakwater was also considered for the project, but it is deemed more dangerous and if it breaks, it would be more disastrous to the community.</p> <p>The alignment of the diversion channel was set taking the least number of resettlements into account.</p> <p>The excavated materials will be embanked in the low-lying areas to improve their elevation.</p> <p>The suggestion would have big environmental impacts, but it was noted. The Chief of Staff of the Municipal Mayor took the microphone and delivered the message from the mayor (Please refer to the morning session</p>

Table 15.6 Major Opinions of 2nd Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
			minutes) assuring the residents that the project would not push through until all the informal settlers have been relocated and all the concerns of the property owners are addressed.
		If the mayor would put in writing the said assurance.	The Chief of Staff agrees with the suggestion and recommended the DPWH enter into an agreement that the project would not start until all concerns are addressed.
		A Franciscan nun stated cautious idea to the project.	
		The mayor would not allow the project if it would not benefit the people. If they would be relocated, it should be in a better area.	The comment was noted. The DPWH representative discussed the Right of Way Acquisition Law and entitlements due to project-affected individuals.
		There are three options for the alignment of the project to minimize the affected houses. According to the study, there would be less affected individuals if the retarding basin will only be pursued. There will be less affected individuals, but a larger acquisition of land. So why not pursue that instead?	Showed the map to indicate the location of the mentioned retarding basin, it's a priority component to construct the retarding basin, but it's just part of the overall plan because it is not sufficient. As a matter of fact, the retarding basin is already for detailed design, but it cannot stand alone and it would not be sufficient to address the flooding problem.
		The project also recommends a combination component of retarding basin and river improvement which the project can pursue. The project recommended the retarding basin plus river improvement, not retarding basin plus diversion channel.	Such plan was the recommendation of the 2007 study which only considered a 25 year simulation, but this current study seeks to update that study which now considers a 50 year cycle and considering the developments in the upstream areas. And it was found out that the retarding basin would not be sufficient. The retarding basin can be pursued first, but there's no assurance that they will be safe for a Milenyo-like event
		Whenever there's a problem, the solution of the government is construction which affects the people and environment. It was recommended to the government should challenge to implement programs to instill discipline. The government allows developments upstream, and it is us in the lower area that is affected. Why doesn't the government control those in the upstream?	The commentary of the resident was noted. There are also non-structural components of the project, recommending 10% of the budget be allotted for it. The chief of staff of the municipal mayor recommended to the DPWH and DENR to have a moratorium on the development and land use conversion to arrest the environmental damage. This was noted but DPWH does not really cover land use conversion in its mandate.
		The different government agencies should coordinate with one another first.	There are inter-agency coordination's for such projects and assured the residents that DPWH is actively participating in said coordination activities.
		If DPWH identifies the specific households that would be affected by the project, they can prepare for the project.	The alignment was based only on satellite maps because the survey team have not yet penetrated the site. The actual alignment can only be identified in the detailed design stage. The map was shown again to give the residents an idea of the affected structures.
		How were the respondents, who are the objective persons for the questionnaire the survey, selected?	The residents were determined by approximation using the satellite image maps overlaid with the alignment of the project facilities. .

Table 15.6 Major Opinions of 2nd Public Consultation Meetings

No.	Target Municipality	Opinions/Issues/Concerns	Response by DPWH
		Requested that in determining the alignment, the study team should not just consider the number of affected houses, but also consider the type of ownership of the houses and preferably, to minimize impacts on property owners and original settlers.	Noted.
		It is not important if you are an informal settler or you live in your own property. We all have rights. What we are discussing here is what is for the greater good for the people, everybody. Even though you are an informal settler, the town already welcomed you. But what we are talking here is our displacement. All of us will be displaced. All of us have feelings. Whether we are informal settlers or original settlers, we love Noveleta. So let's try first the discipline I am talking about. Let's clean the river and widen it, and let's all be vigilant. The officials we elected into position, all be vigilant in their respective areas. Because development only starts within ourselves. If we do not change our ways, there can be no change.	Noted.

Source: JICA Study Team

15.1.4 3rd Public Consultation Meetings

As described above, the formal settler families affected by the project will be entitled to have the supplementary option for compensation by land swapping near their present dwellings. Hence, the 3rd Public Consultation Meeting was held in order to explain to and discuss with the formal settler families about the land swapping. Moreover, the agenda on the graves, which are affected by the project, were not discussed in the former 1st and 2nd Public Consultation Meetings, and it was raised in the 3rd Public Consultation Meetings.

Regarding the relocation of graves, it was explained that the following basic agreements were made among DPWH as the project implementer, Noveleta municipality as the administrator of the municipal cemetery, and the private cemetery owner adjacent to the municipal cemetery.

- DPWH will acquire the open space of the adjacent private cemetery at the market price for the relocation of graves.
- The above relocation site will be transferred to the municipal cemetery, and the graves will be managed by Noveleta municipality after the relocation.
- The owners of graves will receive the graveyards for free and the compensation to transfer and rebuild the graves.

The date, venue, and number of the participants of the 3rd public consultation meeting are as shown in Table 15.1.7, while major topics of discussion in the meeting are as enumerated in Table 15.1.8. There were 57 participants, of which 25 were female and 32 were male.

Table 15.1.7 Outline of 3rd Public Consultation Meeting

Date and Time	Venue	Target Municipality	Participant
May 12, 2017 9:30 AM	Cass Haieda, Barangay Tejeros Convention	Noveleta Rosario General Trias	<u>Number of participants: 68 persons</u> - Noveleta: 54 - Rosario: 2 - Gen. Trias: 1 <u>Attribution of participants:</u> - House relocation required: 51 - Grave relocation required: 6

Source: JICA Study Team

Table 15.1.8 Major Opinions of 3rd Public Consultation Meetings

No.	Opinions/Issues/Concerns	Response by DPWH
1..	DPWH presented a supplementary option for compensation of resettlement for the formal settler by offering of an alternative land near their present residences. However, the definite location of the alternative land for resettlement has not been fixed yet. The speaker wishes to know the location of alternative land for resettlement first to make any decision.	DPWH has decided to allocate the necessary budget for offering of the alternative land for resettlement, and Municipality of Noveleta now tries to find the eligible parcels for the alternative land, DPWH will further coordinate with the relevant LGUs and present more definite plan for the alternative land as early as possible.
2.	Are the project affected families identified through the JICA Study fixed or sill possibly changed in the future?	The detailed design for the Project will be carried out after project approval. During the period of the detailed design, the alignments of the project facilities would be adjusted, which would lead to some modification on the project affected families.
3.	When will the detailed design and the land acquisition/resettlement start?	The detailed design and the land acquisition/resettlement are scheduled to start in June 2018 and April 2019, respectively.
4.	What will happen, if a substantial number of the project affected families oppose project implementation.	According to the questionnaire survey to the project affected families, up to 65% of the respondents agree or conditionally agree the project implementation. Thus, it is understood that the majority of the project affected families accept the project implementation, and therefore, the assumption itself in the comment is incorrect.
5.	How many years are scheduled as the period for land acquisition and house relocation for the project implementation?	The land acquisition and resettlement for the Project will be implemented from April 2019 to December 2020. During this period, the DPWH will inform the details of the compensations the projected affected families.
6.	San Juan Diversion Channel, one of the major project facilities is explained to have the similar effect of flood mitigation to the existing Mangahan Floodway located at the Pasig River. However, the Pasig River still causes the flood overflow even after completion of Mangahan Floodway and therefore, there is some doubt about the flood mitigation effects of San Juan Diversion Channel	The flood is natural phenomenon and therefore, it could possibly exceed the flood control capacity of San Juan Diversion Channel. In fact, the Pasig River caused the overflow, when the Typhoon Ondoy brought the flood after completion of Mangahan Floodway. However, the flood caused by Typhoon Ondoy is the extraordinary scale having the probable recurrence period of 50 years and exceeding the design flood control capacity of Mangahan Floodway. If the Mangahan Floodway were not constructed, Pasig River would have caused more frequent flood overflow. San Juan Diversion Channel could make similar flood mitigation effects to Mangahan Floodway upon its completion.
7.	The comments, suggestions, and requirements given by the residents in the public consultation meetings are deemed not fully reflected to the plan for project implementation. From this viewpoint, the results of the public consultation meetings are not fully satisfactory.	DPWH has agreed to insure the resettlement parcels/sites both for the project-affected formal and informal settler families based on the comments of the participants of the public consultation meetings. Thus, DPWH wishes the project affected families to recognize the DPWH's efforts to reflect the comments of the project affected families and minimize the adverse effects of the project affected families.
8.	Is the river channel improvement of the existing San Juan River able to have	The San Juan River has caused the flood overflow almost every two years. If such small channel flow capacity of San Juan River is increased

No.	Opinions/Issues/Concerns	Response by DPWH
	similar flood mitigation effects with less social adverse impacts as compared with construction of the proposed San Juan Diversion Channel?	to attain the target design scale of the Project (i.e., the scale to cope with 1/25years flood occurrence), the channel width of the River has to be made more than double of the present width. However, the both of the right and left banks of the San Juan River is now densely packed with the houses, and expansion of the channel width of San Juan River requires the resettlement of more than 1,000 houses. On the other hand, the San Juan Diversion Channel could reduce the number of resettlements to less than 600 houses for attaining of the said design scale of 1/25years flood occurrence.
9.	One of participants commented that she has not received questionnaire for the socio-environmental survey for the Project.	At first, the local subcontractors of the JICA Study Team were not allowed to distribute the questionnaire to the project affected families in a part of the proposed project site due to guidance from barangay. Subsequently, the local subcontractors made an effort to redistribute the questionnaire after obtaining official approval in the area. However, DPWH recognized that unfortunately some of the the project affected families did not receive the questionnaire due to their absence at the house.
10.	Is it possible to disclose the study reports and/or other relevant documents, which describe the details of the Project? Is it also possible to disclose the minutes of the public consultation meetings so to share the contents of discussions made in the meetings?	The information on the contents of the Project as well as the environmental and social considerations for the Project will be disclosed through JICA Website. The information will be disclosed for 120 days before the date of completion of Loan Agreement for the Project.

15.2 Information Campaign

The information campaign will be carried out by the UPMO-FCMC with the support of ESSD, the RO IV-A and the CDEO, which will be implemented through community meetings and leaflets. Especially, the information campaign will convey:

- Justification of the project,
- The entitlement that each PAP is entitled to receive just compensation for his/her affected plot at a rate based on current market value as provided by RA 10752,
- The negotiations process detailed in RA 10752 provides, and
- The grievance redress mechanism including the available channels for complaints, grievances and related procedures

15.2.1 Community Meeting

Community meetings to be organized in sufficient number and at the appropriate location and time so as to allow the potential participation of all PAPs or their authorized representatives. In the course of the meetings, DPWH personnel will explain the purposes of the meetings, and will provide the information detailed above. The PAPs will be free to ask for clarification and to propose procedures that may facilitate the implementation of the compensation program. When necessary DPWH will provide the PAPs with transportation to reach the meeting venue. At each meeting the numbers and names of the participants will be recorded and minutes of the discussions will be taken by DPWH. Women and elderly who are among the PAPs shall likewise be consulted and mobilized to participate in the consultation meeting.

15.2.2 Leaflets

A leaflet, printed in the language understandable to the PAPs, providing a statement of purpose, project details and clearly indicating the information listed above to be distributed by the CDEO to each PAP. Additional copies of the leaflet will be distributed during the community meetings. It will also be posted in enlarged poster form in strategic locations like the municipal, city and barangay halls.