

JICA-Assisted Davao City Bypass Construction Project

Resettlement Action Plan



ECOSYSCORP, INC.

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ABBREVIATIONS

BCS	Business Case Study
BIR	Bureau of Internal Revenue
CADT	Certificate of Ancestral Domain Title
CENRO	City Environment and Natural Resources Office
CLUP	Comprehensive Land Use plan
CMP	Community Mortgage Program
CPDC	City Planning and Development Coordinator
CRIC-GHC	City Resettlement Implementing Committee-Grievance Handling Committee
CRIC-MRIC	City Resettlement Implementing Committee-Municipal Resettlement
CTC	Transfer Certificate of Title
DAO	Department Administrative Order
DCWD	Davao City Water District
DED	Detailed Engineering Design
DENR	Department of Environment and Natural Resources
DEO	District Engineering Office
DIA	Direct Impact Area
DLPC	Davao Light and Power Corporation
DO	Department Order
DPWH	Department of Public Works and Highways
EO	Executive Order
ESSD	Environmental Social Safeguard Division
GAF	Grievance Action Form
GOP	Government of the Philippines
На	Hectare
HUDCC	Housing and Urban Development Coordinating Council
IEC	Information Education and Communication
Ю	Implementing Office
IPAP	People's Action plan

IPRA	Indigenous Peoples Right Act
IRR	Implementing Rules and Regulations
IROW	Infrastructure Right-of-Way
IS	Informal Settlers
JICA	Japan International Cooperation Agency
LAPRAP	Land Acquisition Plan and Resettlement Action Plan
LARRIPP	Land Acquisition, Resettlement, Rehabilitation and Indigenous People's Policy
LGU's	Local Government Units
LIAC	Local Inter-Agency Committee
LMB	Land Management Bureau
LRIP	Livelihood Restoration and Improvement Program
MILF	Moro Islamic Liberation Front
MOA	Memorandum of Agreement
NAMRIA	National Mapping and Resource Information Authority
NCIP	National Commission on Indigenous Peoples
NSCB	National Statistic Coordination Board
NGA	National Government Agencies
NHA	National Housing Authority
PAPs	Project Affected Persons
PCDG	Pre-Stressed Concrete Girders
PHILCOA	Philippine Coconut Authority
PPDG	Philippine Plan for Gender-Responsive
PPP	Public-Private Partnership
RA	Republic Act
RAP	Resettlement Action Plan
ROW	Right-of-Way
RRW	Road Right of Way
SFMV	Schedule of Fair Market Values
UP	University of the Philippines
UPMO	Unified Project Management Office

Executive Summary

This Draft Resettlement Action Plan (RAP) is prepared for the proposed Davao City Bypass Construction Project. Preparation of this RAP is guided by World Bank policy on Involuntary Resettlement, particularly O.P. 4.12, WB Involuntary Resettlement Sourcebook (2004), and the JICA Guidelines for Environmental and Social Considerations (March 2010).

This Draft RAP identifies adverse resettlement impacts, establishes compensation and entitlements, and formulates procedures that will facilitate smooth implementation of the Project. The main objective is to ensure that no Project-Affected Persons (PAPs) are worsened off as a result of Project implementation, particularly those who are at risk of becoming poorer. It also includes a section on procedures for monitoring and evaluation to check whether (i) compensation and entitlements have been properly accorded and delivered on time to PAPs, and (ii) living standards have been restored or improved.

The Project Area

The proposed Davao City Bypass Project is located in the City of Davao in Davao Del Sur and the City of Panabo in Davao, Del Norte. The alignment will start along the Davao-Digos section of the Pan-Philippine Highway in Brgy. Sirawan, Toril, Davao City approximately 500 m south of Lipadas Bridge. It will then proceed on a north-northwesterly direction towards Brgys.Marapangi, and Bato, where it will shift to a slightly northwesterly direction upon crossing Lipadas River. After crossing said river it will then traverse Brgys. Lubogan, Alambre, Bangkas Heights, veer northwards into Mulig and Bago Oshiro, until it reaches the University of the Philippines (UP) Mindanao Campus in Brgy. Mintal.

As the alignment passes Tugbok Proper, it will traverse the Davao-Bukidnon Road, cross the Talomo River, and proceed on a northwesterly direction towards agricultural lands in Brgy. Tacunan and Matina-Biao, cross another waterway (Matina River) before it proceeds to the tunnel section in Brgy. Magtuod. After the tunnel section it will continue in the same direction towards Brgy. Waan, cross Davao River and continue towards Brgy. Tigatto. It will then proceed to Brgy. Cabantian, where the alignment will shift into a northerly direction as it crosses Lasang River and passes towards Brgys. Communal, Indangan, Mudiang, and Tibungco, where it will cross the mine tenement (quarry) of Holcim Cement Corporation.

The alignment will then shift on a northerly to northwesterly direction as it passes through Brgy. Mahayag, and makes another shift towards a northeasterly direction

as it approaches Brgs. San Isidro and Lasang. It will proceed in the same direction until it intersects the Davao-Agusan National Highway in Brgy. J.P. Laurel, Panabo City where the alignment will terminate.

Legal Framework

The following legislation, implementing rules and regulations, department orders and circulars were utilized as reference, and shall be the basis of implementation of this RAP:

- (i) *International Standards* WB O.P. 4.12; ADB Involuntary Resettlement Policy; JICA Guidelines on Environmental and Social Considerations;
- (ii) National Legislation Civil Code of the Philippines (Article 437); Republic Acts 8974 (and its IRR), 7279, 9710 (and its IRR); Executive Order 1035 Series of 1985, Executive Order 273 Series of 1995; and
- (iii) Policy and Guidelines DPWH LARRIPP 3rd Edition Series of 2007; DPWH Department Orders – D.O. 5 and 327 Series of 2003; D.O. 34 Series of 2007

Scope of Work

In preparing the RAP the following activities were undertaken:

- (i) Conduct of IEC with Davao City and Panabo City Officials
- (ii) Conduct of barangay level public consultation meetings;
- (iii) Based on the alignment map, tagged each structure within the estimated ROW limits. The Consultant also took photographs of each of these tagged structures, together with the corresponding property owners;
- (iv) Conduct of Census and Socio-Economic Survey of PAPs. The census enumerates persons potentially affected by the Project; the socio-economic survey include basic demographic and related data for each household;
- (v) Asset Identification and Valuation. This is a more detailed inventory of the affected assets within the area of Project impact. The Consultant identified and valued the affected land based on BIR zonal value and schedule of market values provided by the City Assessor, structures, crops and other improvements using replacement cost method; and
- (vi) Established the Entitlements and Compensation to the PAPs for the acquisition of assets affected by the Project ROW.

In valuing the structures and improvements within the Project ROW, the Consultant, pursuant to Section 10 of the IRR of RA No. 8974, used the replacement cost method to determine the valuation of structures and improvements within the Project ROW. The replacement cost of the improvements/structures is defined in Section 10 of the IRR of R.A. 8974 as the "amount necessary to replace the improvements/structures, 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/structures. In the valuation of the affected improvements/structures, have a shall consider, among other things, the kinds and quantities of materials/equipment used, the location, configuration and other physical features of the properties, and prevailing construction prices.

In valuing crops and trees affected by the Project, the Consultant, pursuant to the DPWH DO No. 327, series of 2002, determined the current market value of such improvements as determined by the concerned Municipal/City Assessor for crops and fruit trees, and the Department of Environment and Natural Resources (DENR) for timber trees, and the Philippine Coconut Authority for coconut trees. The summary of compensation cost is presented below:

Implementation Schedule

If delays are not encountered the following implementation schedule is envisaged:

- (i) First consultation meeting 1st Quarter of 2017
- (ii) Parcellary Survey 2nd Quarter of 2016 to 1st Quarter of 2017
- (iii) Updating of RAP 4th Quarter of 2016 to 1st Quarter of 2017
- (iv) Formation of the CRIC 4th Quarter of 2016
- (v) Disclosure of updated RAP to PAPs 2nd Quarter of 2017
- (vi) Notification of PAPs 2nd Quarter of 2017
- (vii) Compensation 3rd Quarter of 2017 to 1st Quarter of 2018
- (viii) Relocation to replacement land (optional) 4th Quarter 2017 to 1st Quarter 2018
- (ix) Income Restoration 3rd Quarter 2017 to 1st Quarter 2018
- (x) Internal Monitoring 3rd Quarter 2017 to 3rd Quarter 2018
- (xi) External Monitoring 2nd Quarter 2018 to 3rd Quarter 2021

Summary of Project Impacts

The following tables presents a summary of land acquisition and resettlement (land, structures, and income).

Summary of Project Impact on Land	d		
City/Barangay	Total Number. of Lots	Severe	Marginal
DAVAO CITY		_	
Sirawan	9	4	5
Marapangi	21	8	13
Bato	24	14	10
Alambre	7	4	3
Bangkas Heights	7	3	4
Mulig	24	10	14
Mintal	22	14	8
Tugbok	16	10	6
Tacunan	46	22	24
Magtuod	11	6	5
Waan	2	0	2
Tigatto	7	0	7
Cabantian	28	14	14
Communal	9	4	5
Indangan	9		9
Mudiang	20	11	9
Tibungco	15	6	9
Mahayag	19	6	13
San Isidro	23	6	17
Lasang	11	1	10
PANABO CITY			
J. P. Laurel	1	1	0
TOTAL	331	144	187

Summary of Project Impact on Structures*				
Barangay	Total Number. of Structures	Structure Usage		
Mintal	26	Residential dwelling – 24 Sari-sari store – 1 Fence - 1		
Tacunan	1	Residential dwelling –1		
Mudiang	4	Residential dwelling –4		
Tibungco	9	Residential dwelling –8 Storage structure (on-going const.) - 1		
Mahayag	13	Residential dwelling –11 Sari-sari store – 1 Storage structure (<i>bodega</i>)- 1		
San Isidro	10	Residential dwelling –4 Poultry – 2 Storage structure (<i>bodega</i>) – 2 Chapel – 1 Greenhouse – 1		
Lasang	8	Residential dwelling – 6 Lumber store – 1 Storage structure (<i>bodega</i>)- 1		
TOTAL	71	Total Residential Dwellings: 58 Total Non-Residential Structures: 13		
*Davao City only; none in Panabo City				

Summary of Project Impacts on Trees and Crops					
NO.	BARANGAY	Total No. of Trees	Total No. of Trees	Total No. of Hills	Total No. of Trees
		MANGO	COCONUT	BANANA	INTERCROPPED
DAVAO	CITY				
1	Sirawan	29	75	40	127
2	Marapanggi	110	26	1,935	56
3	Bato	274	91	225	170
4	Alambre	41	81	132	138
5	Bangkas Heights	34	32	30	306
6	Mulig	-	159	-	1,016
7	Mintal	65	15	-	1,020
8	Tugbok	22	32	-	-
9	Tacunan	371	81	732	717
10	Magtuod	1	30	897	258
11	Waan	52	1	1,536	-
12	Tigatto		3	797	=
13	Cabantian	54	1	3,991	95
14	Communal	18	11	1,220	46
15	Indangan		22	673	-
16	Mudiang	22	129	-	=
17	Tibungco	15	122	2,080	173
18	Mahayag	2	194	82	1,611
19	San Isidro	4	3	343	1,606
20	Lasang	3	26	1,935	-
PANABO	CITY				
21	JP Laurel	1	22	_	-
TOTAL		1,118	1,156	16,648	7,339

Summary Breakdown of Funds for Affected Properties

RAP Implementation Budget		
Activity	Cost Items	Amount (Php)
A. RROW Acquisition	Land	1,781,376,766
	Structures and Improvements	16,528,662
	Trees and Crops	4,987,350
	Financial Assistance for Tenants	2,702,532
	Inconvenience Allowance for Structure Owners on own land	230,000
	Rehabilitation Assistance for PAPs engaging in new income activity	525,000
Total		1,806,350,400
B. Contingency	+ 10% Contingency	180,635,040
	+ 5% Managerial Cost	90,317,520
GRAND TOTAL		2,077,302,960

The table below shows the breakdown of funds for affected properties:

the 11/23/15

1. Project Description

The proposed Davao City Bypass Project is located in the City of Davao in Davao Del Sur and the City of Panabo in Davao, Del Norte (Please see **Figure 1-1**).

The alignment will start along the Davao-Digos section of the Pan-Philippine Highway in Brgy. Sirawan, Toril, Davao City approximately 500 m south of Lipadas Bridge. It will then proceed on a north-northwesterly direction towards Brgys. Marapangi, and Bato, where it will shift to a slightly northwesterly direction upon crossing Lipadas River. After crossing said river it will then traverse Brgys. Lubogan, Alambre, Bangkas Heights, veer northwards into Mulig and Bago Oshiro, until it reaches the University of the Philippines (UP) Mindanao Campus in Brgy. Mintal.

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The alignment will then shift on a northerly to northwesterly direction as it passes through Brgy. Mahayag, and makes another shift towards a northeasterly direction as it approaches Brgs. San Isidro and Lasang. It will proceed in the same direction until it intersects the Davao-Agusan National Highway in Brgy. J.P. Laurel, Panabo City where the alignment will terminate.

1.1. Project Rationale

For decades, Mindanao has lagged behind the rest of the Philippines in terms of economic development despite its agro-fishery, mineral and human resource potentials. However, in recent years the region has been showing faster economic growth than the rest of the country. The signing of the Bangsamoro Peace Framework Agreement between the government and the Moro Islamic Liberation Front (MILF) in October 2012 is expected to accelerate the recent economic development.

Davao City, the third and the most major city in Mindanao, is expected to play a lead role in the economic growth. Major urban roads in Davao City have 4-lanes (2-lanes per direction), but are insufficient to ease severe traffic congestion. Similarly, traffic from and to Sasa and

Panabo Ports is also frequently experiencing traffic congestion, affecting the transportation of goods.



Figure 1-1. Location Map of the Proposed Davao City Bypass

In July 2010, JICA conducted a Master Plan on High Standard Highway Network Development, which proposed improvement of the Tagum-Davao-General Santos Corridor and the construction of a diversion road in Davao City as a priority project.

Road widening and improvement project of the above corridor is on-going for many parts of sections, such as 4-lane widening of present two-lane section, and slope protection construction by World Bank and other funds.

With regards to the Davao City Bypass Project, the Department of Public Works and Highways (DPWH) conducted a Business Case Study (BCS) and the study results, both economic and financial aspects was the basis to determine whether the Project is qualified for a Public-Private-Partnership (PPP) and/ or as a conventional Government project. DPWH is studying the utilization of Yen Ioan as one of candidate sources of funding in order to implement the Davao City Bypass Project. Both JICA and DPWH recognized that this Project is a very important for traffic improvement in Davao City and Mindanao Eastside Area.

Davao City Bypass is crucial due to the following reasons:

- To reduce traffic congestion of Davao City Urban Center where the average travel speed is less than 20 km/hr;
- To disperse urbanization outside Davao City Urban Center which is already oversaturated;
- To strongly support economic activities not only in Region XI but also the entire Mindanao;
- To provide better access to Sasa Port and Panabo Port; and
- Existing diversion road is getting congested and is hilly (gradient is 6.5-7.0%)

1.2. Project Components

The proposed Davao City Bypass mainly consist of three (3) major components as follows:

- Roadway Section (37.17 km);
- Tunnel Section (2.28 km); and
- Bridge Section (5.13 km)

1.2.1 Roadway Section

The bypass road is designed to provide a relative high speed road that allows a safe and efficient movement of traffic. It has a design speed of 60 kph, which is in accordance with Road Safety Design Manual (DPWH, 2004) as well as consideration of the topographic condition.

Initially, the number of lanes required is set as 2-lanes, with a carriageway width of 3.5 m, and shoulder of 2.5 m. The Road Right-Of-Way (RROW) is between 50-60 m. Future

expansion from 2-lanes to 4-lanes is considered in the design depending on the traffic demand after 2027.

Embankment and Cut Sections

Considering that the project area has a rolling to hilly topography, some roadway sections need to be cut and the others filled with embankment to achieve a gradient that is in accordance with the design standards of DPWH. A summary of the embankment and cut sections are shown in **Table 1-1**. Typical roadway cross sections are shown in **Figure 1-2** to **Figure 1-5**.

Table 1-1. Embankment and Cut Section Length			
	5m > H 10 m	10 m < H	Total (Unit in km)
Cut Section	4.30	6.00	10.30
Embankment Section	3.70	1.60	5.30
Total	8.00	7.60	15.60

Road Crossings and Intersections

To ensure continuous access as well as accessibility to and from the Bypass, road crossings and intersections will be provided. There are three main types, namely: (i) at-grade intersection; (ii) overpass/flyover, and (iii) underpass. These are illustrated in **Figure 1-6**



Figure 1-2. Typical cross section at low embankment areas. Source: JICA Study Team 2014



Figure 1-3. Typical cross section at high embankment areas. Source: JICA Study Team 2014



Figure 1-4. Typical cross section at low cut areas. Source: JICA Study Team 2014



Figure 1-5. Typical cross section at high cut areas. Source: JICA Study Team 2014



Figure 1-6. Typical road crossings and intersections. **(a)** Intersection with Gen. Santos Road during initial stage; **(b)** Intersection with Davao-General Santos Road during widening stage; **(c)** Intersection with Davao-Bukidnon Highway during initial stage; **(d)** Intersection with Davao-Bukidnon Highway during widening stage; **(e)** Intersection with Maharlika Highway at the end of the alignment during initial stage; **(f)** Intersection with Maharlika Highway at the end of the alignment during stage.

1.2.2 Tunnel Section

The proposed tunnel section between Matina River and Davao River will a stretch of approximately 2.3 km. The first phase will have a 2-lane roadway, with a carriageway of 3.5 m on each direction. Shoulder width on both sides is set at 1.25 m. The 5-meter vertical clearance of the tunnel is based on standard clearance specification. Its vertical gradient is set at 0.5% and a horizontal curvature of 3,000 m. Please refer to **Figure 1-7** (a to d) for illustrations of typical cross sections as well as similar tunnels in Japan. Another tunnel

alongside the main one will also be constructed to help attain higher level of safety during emergency situations.



Figure 1-7 (a). Cross section of the proposed tunnel to be constructed to cross a mountainous area in Brgy. Magtuod. As done in other countries such as Japan, the tunnel will be equipped with the necessary support facilities such as: (1) ventillation system, (2) lighting system, (3) radio broadcast relay system, (4) radio communication facilities, and (5) emergency telephone. *Source: JICA Study Team 2014*



1-7 (b) Portal of similar 2-lane tunnel in Japan. *Source: JICA Study Team 2014*



1-7 (c) Well-lighted interior of a 2-lane tunnel in Japan. Plastic (flexible) poles are installed at the center of the roadway for safety. *Source: JICA Study Team 2014*

1-7 (d). Tentative layout plan of the Tunnel Management Office. A Tunnel Management Office is being proposed maintain and secure safety and to immediately act on emergency cases. *Source: JICA Study Team 2014*



1.2.3 Bridges and other Structures

A total of **45** bridges and **43** pre-stressed concrete girders (PCDG) for the entire alignment. Major river systems to be crossed consist of the following from the north: (1) *Lasang River*, (2) *Davao River*, (3) *Matina River*, (4) *Talomo River*, and (5) *Lipadas River*.

The following will be the hydraulics criteria in the design for the opening of all bridges for this project so as not to impede the river flow especially during flood events:

- Bridge should have sufficient opening for back flow to cause increase the flood height at the upstream side of the bridge;
- The bridge opening will be sufficient so as to cause increase in velocity of flow through the bridge;
- The existing natural flow distribution is maintained;
- The pier and abutment are designed to minimize the flow disruption and effect of scouring abated (local scour is within acceptable limits); and
- Adequate clearance to allow unhindered passage of debris (elevation of the bottom of the bridge girder is higher than "Highest high water level with height of Freeboard or Navigation Channel;

2. Objectives of the RAP and Methodology

2.1 Objectives of the RAP

The main objective of this Resettlement Action Plan is to ensure that no affected persons are worsened off as a result of the Davao City Bypass Construction Project, and that:

- Adverse social and physical impacts are avoided, minimized, and mitigated;
- Stakeholders, and more importantly the Project-Affected Persons (PAPs), will benefit from the Project;
- PAPs are provided with sufficient compensation and assistance for lost assets which will help them improve or at lease restore their pre-project standard of living; and
- Resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected

2.2 Survey Methodology

Given that there is no parcellary survey conducted yet, delineation of affected structures and indentification of project-affected persons was just based on estimated location of the Bypass alignment. Using barangay tax maps obtained from the City Assessor's Office, the alignment was plotted and lot numbers of land parcels to be affected were noted down. The names of possible landowners were also obtained from the same office.

During sending of invitation for consultation meetings, numbers of affected lot, along with identified landowners were provided to respective barangay captains. As indicated in the letters sent, barangay captains were also requested to invite informal settlers who are occupying land that corresponding to lot numbers provided.

During each consultation meeting it was considered more practical and advantageous to the landowners that they be interviewed immediately after the meeting, considering that some of them are not actually occupying the land that will be affected. Prior to the actual conduct of interviews, it was explained that this methodology is on a voluntary basis; meaning, that they have the option whether they would like to stay to be interviewed after the meeting or not.

For those who were not interviewed during the consultation meetings, enumerators were sent to the site to administer the questionnaires. It is important to note that for some barangays the team was advised not to go to the field to undertake the survey. Instead the Barangay Captain recommended that he will just invite the PAPs to the barangay hall where

they can conduct the interviews. Census and socioeconomic survey of PAPs was conducted from June 16 to August 12, 2014.

3. Resettlement Policy Framework

Just like any other development projects it is important to ensure that no affected persons are worsened off by its implementation. To achieve this it is imperative that acquisition of the necessary Right-of-Way must be dealt with carefully. The best way to achieved this is through the preparation of a Resettlement Action Plan (RAP) that are based on international guidelines on involuntary resettlement such as World Bank's O.P. 4.12, Asian Development Bank's Involuntary Resettlement Policy, and the JICA Guidelines for Environmental and Social Considerations (2010).

However being a government agency, DPWH has to abide by Philippine laws. In order to fill the gap between international standards and national laws, some measures need to be implemented. It is fortunate that DPWH is one of the first government agencies that developed a resettlement policy known as the Land Acquisition, Resettlement, Rehabilitation and Indigecous Peoples' Policy (LARRIPP) of 2007, which upholds affected peoples' rights to project benefits. Provided below are salient points of the principles that guide the preparation of this RAP.

3.1 International Guidelines

Provided below are some basic principles of various international institutions which uphold the principles of involuntary resettlement.

World Bank's Involuntary Resettlement Policy

Operational Procedure (O.P.) 4.12:

- (i) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs;
- (ii) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits;
- (iii) Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement; and
- (iv) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

ADB's Involuntary Resettlement Policy

- (i) Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs.
- (ii) Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations.
- (iii) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of nonland assets.
- (iv) Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns;
- (v) Improve, or at least restore, the livelihoods of all displaced persons through (1) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (2) prompt replacement of assets with access to assets of equal or higher value, (3) prompt compensation at full replacement cost for assets that cannot be restored, and (4) additional revenues and services through benefit sharing schemes where possible;
- (vi) Provide secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities;
- (vii) Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing;
- (viii) Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation;

- Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation; and
- (x) Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring.

JICA's Guidelines on Environmental and Social Considerations

- JICA incorporates stakeholder opinions into decision-making processes regarding environmental and social considerations by ensuring the meaningful participation of stakeholders in order to have consideration for environmental and social factors and to reach a consensus accordingly;
- (ii) JICA confirms that projects do not deviate significantly from the World Bank's Safeguard Policies, and refers as a benchmark to the standards of international financial organizations; to internationally recognized standards, or international standards, treaties, and declarations, etc.; and to the good practices etc. of developed nations including Japan, when appropriate; and
- (iii) When JICA recognizes that laws and regulations related to the environmental and social considerations of the project are significantly inferior to the aforementioned standards and good practices, JICA encourages project proponents etc., including local governments, to take more appropriate steps through a series of dialogues, in which JICA clarifies the background of and reasons for the inferior regulations and takes measures to mitigate the adverse impacts when necessary.

3.2 Philippine Legislation and Guidelines

Briefly described below are some laws, implementing rules and regulations, and guidelines pertaining to involuntary resettlement.

E.O. 1035 (1985)

This provides the procedures and guidelines for the expeditious acquisition by the government of private real properties or rights thereon for infrastructure and other government development projects: financial assistance to displaced tenants, cultural minorities and settlers equivalent to the average annual gross harvest for the last three (3) years and not less than 15,000 Philippine pesos (Php) per hectare; disturbance compensation to agricultural lessees equivalent to five (5) times the average gross harvest

during the last five (5) years; compensation for improvements on land acquired under Commonwealth Act 141; and the government has the power to expropriate in case no agreement has been reached

Republic Act 8974 and its Implementing Rules and Regulations (IRR)

R.A. 8974 was passed into law in November 2000. The main objective of the enactment is to avoid delays in implementation of development projects due to ROW acquisition-related problems. Republic Act 8974, is otherwise known as "An Act to Facilitate the Acquisition of Right-of-Way, Site, or Location for National Government Infrastructure Projects and For Other Purposes". This law prescribed **new standards for assessment of the value** of the land subject of negotiated sale or expropriation proceedings, namely:

- The classification and used for which the property is suited; (This shall be based on the approved land use plan and/or zoning ordinance, if any, of the city of City concerned);
- The size, shape or location, tax declaration and zonal valuation of the land;
- The price of the land as manifested in the ocular findings, oral, as well as documentary evidence presented;
- The reasonable disturbance compensation for the removal and/or demolition of certain improvement on the land and for the value of improvements thereon;
- The developmental costs for improving the land; (Based on the records and estimates of the City or Municipal Assessor concerned);
- The value declared by the owners; (as shown in their latest Tax Declaration Certificates or Sworn Statements);
- The current price of similar lands in the vicinity; (This shall be based on the records on Deeds of Sale in the Office of the Register of Deeds concerned); and
 - 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.

Another important feature of R.A. 8974's IRR that makes ROW acquisition more acceptable to property owners is **Section 10** which prescribes valuation of affected improvements and/or structures to be computed based on replacement cost method. The **replacement cost** of improvements/structures is defined as "the amount necessary to replace the improvements/structures, 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 improvement/structures".

Compared to previous statutes, valuation of land and improvements using this legislation is by far the most equitable, and practical. Adherence to these provisions would also make the gap between Philippine legislation and international standards smaller.

Presented below are other important and applicable provisions of the IRR:

- Section 4 states that any Implementing Agency which requires acquisition of ROW for its projects may explore DONATION as a first option;
- Sets the 1st offer for negotiated sale of land (just compensation) as the price indicated in the current zonal valuation issued by the BIR for the area where the property is located;
- (iii) Provides for the engagement of government financing institutions or private appraisers as an option to undertake appraisal of the land and/or improvements/structures, to determine its fair market value;
- (iv) Tasked the NHA to establish and develop squatter relocation sites, including provision of adequate utilities and services, in anticipation of squatters that have to be removed from the ROW in the site of future infrastructure projects

Civil Code of the Philippines

In accordance with **Article 437**, Title II (OWNERSHIP), Chapter 1 (Ownership in General) of the Civil Code of the Philippines, "The owner of a parcel of land is the owner of its surface and of everything under it, and he can construct thereon any works or make any plantations and excavations which he may deem proper, without detriment to servitudes and subject to special laws and ordinances. He cannot complain of the reasonable requirements of aerial navigation. (350a)".

In a Supreme Court decision particularly G. R. No. 168732 of June 29, 2007, it upheld the decision of the Court of Appeals (CA) in C.A.-G.R. CV No. 57792, to let National Power Corporation (the *Petitioner*) compensate L. Ibrahim et. al., the *Respondents* for damages incurred in connection with the construction of underground tunnels 115 meters below *Respondents'* property. Excerpts of the case are provided below. A copy of the full version is provided as **Appendix A**.

(i) In their complaint, *Respondents* claimed that they were owners of several parcels of land consisting of 70,000 square meters, divided into three (3) lots, i.e. Lots 1, 2, and 3 consisting of 31,894, 14,915, and 23,191 square meters each respectively. Sometime in 1978, NAPOCOR, through alleged stealth and without respondents' knowledge and prior consent, took possession of the sub-terrain area of their lands and constructed therein underground tunnels. The existence of the tunnels was only discovered sometime in July 1992 by

Respondents and then later confirmed on November 13, 1992 by NAPOCOR itself through a memorandum issued by the latter's Acting Assistant Project Manager. The tunnels were apparently being used by NAPOCOR in siphoning the water of Lake Lanao and in the operation of NAPOCOR's Agus II, III, IV, V, VI, VII projects located in Saguiran, Lanao del Sur; Nangca and Balo-i in Lanao del Norte; and Ditucalan and Fuentes in Iligan City.

- (ii) On September 19, 1992, one of the *respondents* requested the Marawi City Water District for a permit to construct and/or install a motorized deep well in Lot 3 located in Saduc, Marawi City but his request was turned down because the construction of the deep well would cause danger to lives and property. On October 7, 1992, respondents demanded that NAPOCOR pay damages and vacate the sub-terrain portion of their lands but the latter refused to vacate much less pay damages. *Respondents* further averred that the construction of the underground tunnels has endangered their lives and properties as Marawi City lies in an area of local volcanic and tectonic activity. Further, these illegally constructed tunnels caused them sleepless nights, serious anxiety and shock thereby entitling them to recover moral damages and that by way of example for the public good, NAPOCOR must be held liable for exemplary damages.
- (iii) Disputing Respondents' claim, NAPOCOR filed an answer with counterclaim denying the material allegations of the complaint and interposing affirmative and special defenses, namely that (1) there is a failure to state a cause of action since respondents seek possession of the sub-terrain portion when they were never in possession of the same, (2) respondents have no cause of action because they failed to show proof that they were the owners of the property, and (3) the tunnels are a government project for the benefit of all and all private lands are subject to such easement as may be necessary for the same

After a series of hearings and counter filing of cases, NAPOCOR maintained that the subterrain portion where the underground tunnels were constructed does not belong to respondents because, even conceding the fact that respondents owned the property, their right to the subsoil of the same does not extend beyond what is necessary to enable them to obtain all the utility and convenience that such property can normally give. In any case, petitioner asserted that respondents were still able to use the subject property even with the existence of the tunnels, citing as an example the fact that one of the respondents, Omar G. Maruhom, had established his residence on a part of the property. Petitioner concludes that the underground tunnels 115 meters below respondents' property could not have caused damage or prejudice to respondents and their claim to this effect was, therefore, purely conjectural and speculative. However the Courts found these contentions lacking of merit, citing **Article 437 of the Civil Code**, and denied NAPOCOR's petition to annul the CA's decision to let NAPOCOR pay the fair market value of land covering Lots 1, 2 and 3 with 6% interest per annum from the filing of the case until paid.

Based on a KII with a former Solicitor of the Solicitor General's Office, ownership of land includes everything under it (i.e., no limit in terms of depth). In case of underground structures such as tunnels, the following are possible ways of handling Right-of-Way acquisition:

- If owner demands compensation for his property (i.e., even if tunneling would have no effect or impact on his property whatsoever) DPWH can acquire lot, but owner must abandon property;
- DPWH can negotiate with surface owner a certain amount of compensation for constructing tunnel under his property without the landowner having to leave or turn over his property to DPWH.

Republic Act 7279 (Urban Development and Housing Act of 1992) and its IRR

- (i) Section 5 of the Act, and Sections 3.1, and 6.6 of its Annex (Guidelines for the Inventory and Identification of Lands and Sites for Socialized Housing) states that lands or portions thereof, set aside for government offices, facilities, and other installations, whether owned by the National Government, its agencies and instrumentalities, including government-owned or controlled corporations, or by the Local Government Units, but which have not been used for the purpose for which they have been reserved or set aside for the past 10 years from the effectivity of the Act (i.e., as of 2002) shall be covered by the Act. As such, these areas, when identified as suitable for socialized housing, shall immediately be transferred to the NHA, subject to the approval of the President of the Philippines, or by the LGU concerned, as the case may be, for proper disposition with the Act;
- (ii) Section 8 of the Act and its Annex "A" mandated all local government units in coordination with the NHA, HLURB, NAMRIA, and the DENR Land Management Bureau (LMB) to identify lands for socialized housing and resettlement areas for the immediate and future needs of the underprivileged and homeless in the urban areas;
- (iii) **Section 6.3** of the Act's Annex sets the following criteria to be used for evaluating the suitability of sites for socialized housing:
 - (i) To the extent feasible, socialized housing and resettlement projects shall be located in new areas where employment opportunities are available;

- (ii) Priority shall be given to areas where basic services and facilities are already existing or where they can be introduced within a very short time;
- (iii) Transportation costs to work places and other services should be affordable considering that the target beneficiaries are the homeless and under privileged;
- (iv) The site shall not require excessive levelling, cutting, and filling. Sites requiring excessive engineering works shall be avoided. Likewise, sites on steep slopes and/or weak soil foundation shall not be considered;
- (v) Environmentally critical areas like those that are flood prone or earthquake zones or areas near rivers and canals shall be avoided;
- (vi) Compatibility with existing zoning;
- (vii) Financial feasibility and viability where land valuation offer is low; and
- (viii) Tenurial status must be ascertained
- (iv) **Section 16** of the Act provides the eligibility criteria for program beneficiaries as follows:
 - a. Must be a Filipino citizen;
 - b. Must be an underprivileged and homeless citizen (i.e., as defined in Section 3 of the same Act, refers to beneficiaries of the Act and to individuals or families residing in urban and urbanizeable areas whose income or combined household income falls within the poverty threshold as defined by the NEDA and who do not own housing facilities, including those who live in makeshift dwelling units and do not enjoy security of tenure);
 - c. Must not own any other real property whether in the urban or rural areas;
 - d. Must not be a professional squatter or a member of squatting syndicates
- (v) Section 28 of the Act stipulates that eviction or demolition as a practice shall be discouraged; however it may be allowed under the following conditions:
 - When persons or entities occupy danger areas such as esteros, railroad tracks, garbage dumps, riverbanks, shorelines, waterways, and other public places such as sidewalks, roads, parks, and playgrounds;

b. When government infrastructure projects with available funding are about to be implemented; or

- c. When there is a court order for eviction and demolition
- (vi) In the execution of the above Section 28, the following shall be <u>mandatory</u>:
 - a. Notice upon the affected persons or entities at least (30) days prior to date of eviction and demolition;
 - Adequate consultations on the matter of resettlement with the duly designated representatives of the families to be resettled and the affected communities in the areas where they are to be relocated;
 - c. Presence of Local Government Officials or their representatives during eviction or demolitions;
 - d. Proper identification of all persons taking part in the demolition;
 - e. Execution of eviction or demolition only during regular office hours from Mondays to Fridays and during good weather, unless the affected families consent otherwise;
 - f. No use of heavy equipment for demolition except for structures that are permanent and other of concrete materials;
 - g. Proper uniforms for members of the Philippine National Police who shall occupy the first line of law enforcement and observe proper disturbance control procedures; and
 - h. Adequate relocation, whether temporary or permanent; provided however, that in cases of eviction and demolition pursuant to a court order involving under privileged and homeless citizens, relocation shall be undertaken by the LGU concerned and the NHA with assistance of other government agencies within (45) days from service of notice of final judgement by the court, after which period the said order shall be executed; provided further that should relocation not be possible within the said period, financial assistance in the amount equivalent to the prevailing minimum daily wage multiplied by (60) days shall be extended to the affected families by the LGU concerned.
- (vii) Section 30 of the Act stipulates that after the effectivity of the Act in 1992, the barangay, municipal or city government units shall prevent the construction of any kind of illegal dwelling units of structures within their respective localities.

DPWH D. O. No. 5, and D. O. 327 Series of 2003

- (i) Promulgated the Implementation of an Improved IROW Process;
- (ii) Implementing Office (IO) shall ensure that IROW costs are always included in project budgets;
- (iii) The IO shall provide an estimated cost breakdown of each project to the IROW and Resettlement PMO and the CFMS prior to any disbursement of funds. The first priority of the budget for a project shall be all costs prior to construction (Please note that this includes Right-of-Way acquisition);
- (iv) If ROW costs differ from the approved ROW budget after detailed design has been finalized, a budget adjustment shall be approved;
- A Land Acquisition Plan and Resettlement Action Plan (LAPRAP) shall be prepared for all projects, whether local or foreign funded, that will require Right-of-Way (ROW) acquisitions, using a standardized compensation package;
- (vi) The determination of Affected Persons (APs) and improvements shall be based on the cut off date, which is the start of the census of APs and tagging for improvements; and
- (vii) The IO shall prepare the final as-built ROW Plan upon completion of the project, for submission to the IROW and Resettlement PMO.

DPWH Department Order (D.O.) No. 34 (series of 2007)) "Simplified Guidelines for the Validation and Evaluation of Infrastructure Right-of-Way Claims"

This provides a step-by-step methodology and guidance to DPWH resettlement staff on how to validate and evaluate infrastructure ROW claims, conduct title searches, and similar activities.

DPWH D.O. No. 327 (series of 2003) "Guidelines for Land Acquisition and Resettlement Action Plan (LAPRAP) for Infrastructure Projects"

- LAPRAP document shall describe the project, expected impacts and mitigating measures, socio- economic profile of PAPs, compensation package, timetable of implementation, institutional arrangements, monitoring and evaluation arrangements, participation, consultation and grievance procedures;
- (ii) LAPRAP shall be prepared using inputs from the IROW Action Plan, the census and socioeconomic survey conducted, the detailed engineering study, and the parcellary survey results.
- (iii) LAPRAP shall be the basis for qualifying and compensating PAPs for lands, structures and/or improvements that are partially or fully affected by the Department's infrastructure projects in accordance with the qualification entitlement, and compensation guidelines.
- (iv) Provision of resettlement sites shall be the responsibility of the Local Government Units (LGUs) concerned, with assistance from the concerned government agencies tasked with providing housing. The DPWH shall coordinate with these LGUs and appropriate government agencies for the resettlement and relocation of qualified PAPs. The acquisition, planning, and development of resettlement sites shall be part of the LAPRAPs, with the responsibility resting mainly with the concerned LGUs, Housing and Urban Development Coordinating Council (HUDCC), National Housing Authority (NHA), and other concerned agencies;
- (v) Where relocation is considered necessary, the receiving LGU (under whose political jurisdiction the relocation site will be located) may seek assistance from DPWH for the provision of basic facilities and services;
- (vi) An Indigenous People's Action Plan (IPAP) shall be formulated for IPs if they are affected by the Department's infrastructure projects, in coordination with the National Commission of Indigenous People (NCIP) to ensure that the ancestral domain and culture of the IP are secured.

Land Acquisition, Resettlement, Rehabilitation, and Indigenous Peoples (LARRIP) Policy, 3rd Edition, 2007

- (i) All efforts must be exercised to ensure that:
 - a. Adverse social impacts are avoided, minimized, and/or mitigated;
 - b. Everybody, including Affected Persons (APs), will benefit from the projects;
 - c. APs are provided with sufficient compensation and assistance for lost assets which will assist them to improve or at least maintain their preproject standard of living;
 - d. Project stakeholders (which include APs) are consulted regarding the projects' design, implantation, and operation
- Only those APs found to be residing in, doing business, or cultivating land or having rights over resources within, the project area as of the date of the census surveys (i.e., cut-off date) are eligible for compensation for lost assets;

- (iii) The Land Acquisition Plan and Resettlement Action Plan (LAPRAP) document shall describe the project, expected impacts and mitigating measures, socioeconomic profile of APs, compensation package, timetable of implementation, institutional arrangements, participation, consultation, and grievance procedures;
- (iv) LAPRAP shall be the basis for qualifying and compensating APs for lands, structures and/or improvements, that are partially or fully affected by the Department's infrastructure projects;
- (v) Provision of resettlement sites shall be the responsibility of the Local Government Units (LGUs) concerned, with assistance from concerned government housing agencies.

R.A. 9710 and Implementing Rules and Regulations (series of 2010) known as the "Magna Carta of Women

This pertains 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.

Executive Order 273 Series of 1995

This approved and adopted the Philippine Plan for Gender-Responsive Development (PPGD), 1995-2025; a successor plan of the expired Philippine Development Plan for Women (PDPW) for 1989-1992.

The Harmonized Gender and Development Guidelines (2007)

This aims 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.

DPWH and World Bank publication, "A Toolkit on Making Road Infrastructures and Related Facilities Gender Responsive"

This presents the principles, approaches and procedures for making road infrastructures and related facilities sensitive to the differing travel needs and patterns of women and men, especially those from low income sectors who rely solely on public and intermediate modes of transport.

3.3 Cut-off Date for Entitlement

Cut-off date for entitlements is recognized by international institutions such as the World Bank (WB), Asian Development Bank (ADB) and Japan International Cooperation Agency (JICA) as a tool that can help prevent false claims for compensation or rehabilitation appearing after disclosure of project. Operational Procedure (O.P.) 4.12 of the WB defines it as "... the date the project area was delineated, prior to the census, provided that there has been an effective public dissemination of information on the area delineated, and systematic and continuous dissemination subsequent to the delineation to prevent further population influx".

During the first round of consultation meetings, this concept was explained to the PAPs. The landowners were requested, to the extent possible, not to introduce any development in the lots that were identified for R-O-W acquisition. In terms of informal settlements, the respective Barangay Chairpersons were reminded of UDHA provision and were requested to control proliferation of informal settlements in said areas.

3.4 Gap Analysis

Gap Analysis between the Government of the Philippines (GOP) Policy and JICA Guidelines

Although the World Bank and JICA as well as the Philippines have strong protection clauses for PAPs, there are gaps between the policies. **Table 3-1** includes a comparison and gap analysis of the policies for some key issues between JICA Guidelines and Philippine relevant regulations.

Table 3-1 Comparison and Gap Analysis of Policies				
JICA Guidelines	Laws and Guidelines of the Philippines	Gap relative to JICA GL	Project Policy	
Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives. (JICA GL)	Land Acquisition, Resettlement, Rehabilitation and Indigenous Peoples' Policy, 2007 (LARRIP), (=WB OP4.12)	None	Same as JICA GL	

Table 3-1 Comparison and Gap Analysis of Policies				
JICA Guidelines	Laws and Guidelines of the Philippines	Gap relative to JICA GL	Project Policy	
When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken. (JICA GL)	LARRIPP	None	Same as JICA GL	
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)	LARRIPP	None	Same as JICA GL	
Compensation must be based on the full replacement cost as much as possible. (JICA GL)	LARRIPP	None	Same as JICA GL	
Compensation and other kinds of assistance must be provided prior to displacement. (JICA GL)	DO#5 (2003): unless ROW is purchased project notice of award to contractor cannot be issued, i.e. all kind of compensation is paid before project is commenced	None	Same as JICA GL	
For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public. (JICA GL)	LARRIPP	None	Same as JICA GL	
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)	LARRIPP	None	Same as JICA GL	
When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected people. (JICA GL)	LARRIPP	None	Same as JICA GL	
Appropriate participation of affected people must be promoted in planning, implementation, and monitoring of resettlement action plans. (JICA GL)	LARRIPP	None	Same as JICA GL	

JICA Guidelines	Laws and Guidelines of the Philippines	Gap relative to JICA GL	Project Policy
Appropriate and accessible grievance mechanisms must be established for the affected people and their communities. (JICA GL)	LARRIPP	None	Same as JICA GL
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 OP 4.12 Para. 6)	LARRIP states the cut-off date as the date of commencement of the census. Resettlement project conducted by LGUs nationwide notifies to public the last day of the census work, and use the date as the cut-off date, so that no eligible PAFs are left uncounted.	None	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. The cut-off date for this RAP is the date of commencement of the census. For those who are eligible for compensation but absent during the census work shall be encouraged to communicate with the barangay captains and to attend community consultation meetings to be validated by DPWH.

Table 3-1 Comparison and Gap	-	le la companya de la	
JICA Guidelines	Laws and Guidelines of the Philippines	Gap relative to JICA GL	Project Policy
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 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. (WB OP 4.12 Para. 15)	Professional Squatters (as defined by Republic Act 7279) applies 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. Squatting Syndicates (as defined by Republic Act 7279) refers to groups of persons who are engaged in the business of squatter housing for profit or gain. Those persons are ineligible for structure compensation, relocation, and rehabilitation/ inconvenience/income-loss assistance in case their structures are to be demolished in resettlement project according to Republic Act 7279. This definition excludes individuals or groups who simply rent land and housing from professional squatters or squatting syndicates.	Professional Squatters and Squatting Syndicates are not eligible for compensation. They salvage the structure materials by themselves.	All affected people (except professional squatters) will be eligible for compensation and rehabilitation assistance, regardless of tenure status, social or economic standing and any such factors that may discriminate against achievement of the objectives of JICA Guidelines. However, those 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 will not be eligible for compensation.
Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. (WB OP 4.12 Para. 11)	If feasible, land for land will be provided in terms of a new parcel of land of equivalent productivity, at a location acceptable to PAFs. (LARRIP)	None	Same as WB OP 4.12

Table 3-1 Comparison and Gap	Analysis of Policies		
JICA Guidelines	Laws and Guidelines of the Philippines	Gap relative to JICA GL	Project Policy
Provide support for the transition period (between displacement and livelihood restoration). (WB OP 4. 12, para.6)	* Income Loss. For loss of business/income, the PAF will be entitled to an income rehabilitation assistance to be based on the latest copy of the PAFs' Tax record for 3 months, or not to exceed P 15,000 for severely affected structures. *Inconvenience Allowance The amount of P 10,000 shall be given to PAFs with severely affected structures, which require relocation and new construction. *Rehabilitation assistance Skills training and other development activities equivalent to P 15,000 per family will be provided in coordination with other government agencies, if the present means of livelihood is no longer viable and the PAF will have to engage in a new income activity. *Transportation Allowance or assistance. If relocating, PAFs to be provided free transportation. Also, informal settlers in urban centers who opt to go back to their place of origin in the province or be shifted to government relocation sites will be provided free transportation. (LARRIP (April, 2007, p. 18, 19)	Upper limit of cash disturbance compensation is limited to Php15,000 according to DPWH guideline. The amount of planned Financial assistance and eligibility are explained in the community consultation, Only objection given to the Study Team was to change alignment and not to cause loss of farming lands	The Commission of Audit (COA) and DPWH of Philippine government must amend Departmental guideline to pay more than Php15,000 of disturbance and other compensation. DPWH will target all PAFs for Livelihood Rehabilitation Assistance. DPWH will conduct quarterly monitoring about the change of living standard of the PAFs before and after the resettlement. When the PAF are found that their living standard worsen, or whose present means of livelihood became not- viable, DPWH, in coordination with other appropriate institutions, will provide assistances, such as skills and livelihood trainings
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. (WB OP 4.12 Para. 8)	LARRIPP	None	Same as WB OP 4.12

4. Consultation and Public Participation

In accordance with best practices on involuntary resettlement, project-affected persons were fully informed, consulted, and encouraged to participate in the decision-making that will affect their lives. As experienced in other similar projects, information dissemination and meaningful consultation at an early stage provides a good venue for PAPs to express their opinions, apprehensions, even objections. It also opens grounds for discussion, which allow project proponents to address issues raised, which upon careful consideration can be incorporated in detailed engineering design and updated RAP. Once this is achieved, delays in implementation due to unforeseen conflicts are minimized, if not avoided.

Consultation meetings started with the presentation of the Project in terms of which areas it will traverse, its components such as the tunnel and bridges, as well as other features such as road crossings and intersections. At the end of each meeting, the invites PAPs are encouraged to participate in the Open Forum. **Table 4-1** and **Table 4-2** present a list of 1st and 2nd stakeholder meetings conducted. Please refer to **Appendix B1 and B2** for the highlights of issues and concerns raised during said meetings. Photographs taken during said meetings are found in **Appendix C**.

Areas Covered	Date, Time, & Venue	Sectors/LGUs/Concerned Government	Number of Participants
Toril Sub-District	June 16, 2014 2:00PM	Brgy. Mulig Land Owners	43
Brgy. Mulig, Brgy. Marapangi, Brgy. Alambre, Brgy. Lubogan,	// Mulig, Brgy. Marapangi, Brown // Alambre, Brgy. Lubogan, Brgy. Hall of Marapangi Toril // Bato, Brgy. Sirawan, District Davao City		
Brgy. Bato, Brgy. Sirawan, Brgy. Bangkas Heights		Punong Barangay, Brgy. Kagawad, Brgy. Secretary, Anflo Mgt.& Investment Corp. Rep., NESTFARM Rep., Land Owners	
		<i>Brgy. Alambre</i> Punong Barangay, Brgy. Kagawad, Brgy. Land Owners,	
		<i>Brgy. Lubogan</i> Land Owners	
		<i>Brgy. Bato</i> Land Owners, Tenants	
		<i>Other Participants:</i> DPWH-Region XI	
		JICA-Study Team Rep. EIA & RAP Team	

First Round of Consultation Meetings

Areas Covered	Date, Time, & Venue	Sectors/LGUs/Concerned Government	Number of Participants
Buhangin Sub-District Brgy. Tigatto, Brgy. Waan	June 17, 2014 9:00AM Brgy. Hall of Tigatto, Buhangin District Davao City	Brgy. Tigatto Punong Barangay, Brgy. Kagawad, Brgy. Secretary, Brgy. Purok Leader, Land Owners Brgy. Waan Brgy. Kagawad Other Participants: DPWH- District Engineering Office Rep JICA Study Team Rep. EIA & RAP Team	16
Brgy. Cabantian, Brgy. Communal, Brgy. Indangan	June 17, 2014 2:00PM Brgy. Hall of Cabantian Buhangin Davao City	 Brgy. Cabantian Brgy. Kagawad, ALSONS Dev't Corp, Land Owners Brgy. Communal Land Owners Other Participants: DPWH-Davao City District Engineering Office EIA & RAP Team 	18

Areas Covered	Date, Time, & Venue	Sectors/LGUs/Concerned Government	Number of Participants
Bunawan Sub-District Brgy. Tibungco, Brgy. Mudiang, Brgy. Lasang, Brgy. San Isidro, Brgy. Mahayag	June 18, 2014 9:00AM Brgy. Hall of Mahayag Bunawan District Davao City	Brgy. Mahayag Punong Barangay, Brgy. Kagawad, Land Owners Brgy. Brgy. Tibungco Brgy. Kagawad, Brgy. Lasang Punong Barangay, Land Owners Brgy. San Isidro Punong Barangay, Land Owners, Holcim Rep. Other Participants: DPWH-Davao City District Engineering Office EIA & RAP Team	33

<i>Panabo City</i> Brgy. J.P. Laurel	June 18, 2014 2:00PM Brgy. J.P. Laurel Brgy. Hall Panabo City	<i>Brgy. J.P. Laurel</i> Punong Barangay, Brgy. Kagawad, Brgy. Secretary, Land Owner	4
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Areas Covered	Date, Time, & Venue	Sectors/LGUs/Concerned Government	Number of Participants
Tugbok Sub-District Brgy. Mintal, Brgy. Matina Biao, Brgy. Tugbok Proper, Brgy. Tacunan	June 19, 2014 9:00AM Brgy. Mintal Covered Court Tugbok District Davao City	Brgy. Mintal Brgy. Kagawad, Land Owners Brgy. Tugbok Proper Brgy. Kagawad, Land Owners Brgy. Tacunan Brgy. Kagawad, Land Owners Other Participants: DPWH- RROW Agent Davao City District Engineering Office JICA Study Team EIA & RAP Team	81

Areas Covered	Date, Time, & Venue	Sectors/LGUs/Concerned Government	Number of Participants	
Talomo Sub-District	June 19, 2014	Brgy. Catalunan Grande	3	
Brgy. Catalunan Grande, Brgy.	2:00 PM	Brgy. Kagawad		
Magtuod	Brgy. Hall of Catalunan Grande	Brgy. Magtuod		
	Talomo District Davao City	Brgy.Kagawad		
		Other Participants:		
		JICA Study Team		
		EIA & RAP Team		

Second Round of Consultation Meetings

Table 4-2a 2nd Round Consultation Meeting Cabantian, Buhangin, Davao City				
Areas Covered	Date, Time, & Venue	Sectors/LGUs/Concerned Government	Number of Participants	
Brgy. Indangan, Brgy. Cabantian, Brgy. Tigatto	October 8, 2014 2:00PM Brgy. Hall of Cabantian, Buhangin, Davao City	Brgy. Indangan Brgy. Kagawad Brgy. Cabantian Punong Barangay, Brgy. Kagawad, ALSONS Devt Corp. Representative, Land Owners Brgy. Tigatto Brgy. Kagawad, Purok Leaders	22	

Table 4-2b 2nd Round C	onsultation Meeting Mahayag, B	unawan, Davao City	
	Date, Time, & Venue	Sectors/LGUs/Concerned Government	Number of Participants
Brgy. Mahayag, Brgy. San Isidro, Brgy. Mudiang, Brgy. JP Laurel Panabo City, Brgy. Tibungco, Brgy. Lasang,	October 8,, 2014 9:00AM Brgy. Hall of Mahayag, Bunawan District Davao City	Brgy. Mahayag Punong Barangay, Brgy. Kagawad, Land Owners Brgy. San Isidro Brgy. Chairman, Land Owner Brgy. Mudiang Punong, Barangay, Land Owners Brgy. JP Laurel Punong Barangay, Brgy. Tibungco Punong Barangay, Brgy. Kagawad, Press Reporter	36

Areas Covered	Date, Time, & Venue	Sectors/LGUs/Concerned Government	Number of Participants
Brgy. Tacunan, Brgy. Marapangi, Brgy. Bato, Brgy. Alambre, Brgy. Mintal, Bangkas Heights, Brgy. Lubogan, Brgy. Tugbok Proper, Brgy. Sirawan	9:00AM	Brgy. Tacunan Land Owners Brgy. Marapangi DAMOSA Complex Representative, CAM Marketing Rep., Brgy. Bato Land Owners, Tenants, AVODHOA Board President, PICPA/DAMUCO Chairperson Brgy. Alambre Landowner Brgy. Mintal Brgy. Kagawad, Land Owners, Structure Owner Brgy. Bangkas Heights Land Owners Brgy. Lubogan Land Owners Brgy. Sirawan	60

5. Socioeconomic Profile of PAPs

The Davao City Bypass will traverse five (5) sub-districts with **20** barangays in Davao City and one (**1**) barangay in Panabo City, Davao del Norte. Details are shown in **Table 5-1**.

Table 5-1 Areas Traver	sed by	the Davao City Bypass Project
	No.	Barangays
DAVAO CITY		
District 1		
Toril Sub-District	6	Sirawan, Marapangi, Bato, Mulig, Alambre, Bangkas Heights
Tugbok Sub-District	3	Mintal, Tugbok Proper, Tacunan
District 2		
Talomo Sub-District	1	Magtuod
District 3		
Buhangin Sub-District	5	Cabantian, Indangan, Communal, Tigatto, Waan
Bunawan Sub-District	5	Mahayag, San Isidro, Lasang, Mudiang, Tibungco
DAVAO DEL NORTE		
Panabo City	1	J. P. Laurel
Total	21	

Persons who will be affected by the project consist of the following sectors:

- · Owners of land (residential, agricultural, agro-industrial, industrial)
- Owners of land and structures
- Owner of structures but renting on land
- Tenants of agricultural land

Household Size and Household Structure

Majority of Project-Affected Persons' (PAPs) have household size between 0 to 3 (45.8%) and 4 to 6 (37.1%), which is consistent with data obtained from the CLUP, which gave 4.2 as the average household size of families residing in urban barangays (Please refer to **Table 5-2**).

Table 5-2	PAP's	Househo	old Size										
Section		South			Center			North					
Sub- District	Toril Tugbok			gbok	Talomo			Buhangin		Bunawan		Total	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	6	Num- ber	%	Num- ber	%
Household S	ize												
0 to 3	24	26.09%	40	43.48%	1	1.09%	1:	2 1	3.04%	15	16.30%	92	45.77%
4 to 6	18	24.00%	23	30.67%	1	1.33%	14	4 1	8.67%	19	25.33%	75	37.31%
7 to 9	8	33.33%	6	25.00%	2	8.33%		4 1	6.67%	4	16.67%	24	11.94%
10 & more	3	30.00%	5	50.00%	0	0.00%	(0	0.00%	2	20.00%	10	4.98%
Total	53		74		4		30	D		40		201	100.00%

In terms of household structure, majority has households consisting of parents and children (nuclear) living together, with 116 respondents, or **57.7%**, as shown in **Table 5-3**. This is followed by those living with parents and/or siblings, or extended families, with 18.4%. There is also a significant number of PAPs living alone (9.4%), and households living in one structure (14.4%).

Table 5-3	PAP	's Hous	ehold St	ructure									
Section		South	1		C	enter			North				
Sub- District	т	oril	Τυς	jbok	ik Talomo			Buhangin Bunawan			Total		
	Num ber	%	Num ber	%	Num ber	%	Num ber	%	Num ber	%	Num ber	%	
Household	Structu	ire											
Single	6	31.58 %	10	52.63%	0	0.00%		3 15.79%	0	0.00%	19	9.45%	
Nuclear	31	26.72 %	43	37.07%	2	1.72%	18	3 15.52%	22	18.97%	116	57.71%	
Extended	5	13.51 %	12	32.43%	1	2.70%	6	6 16.22%	13	35.14%	37	18.41%	
Joint	11	37.93 %	9	31.03%	1	3.45%	3	3 10.34%	5	17.24%	29	14.43%	
Total	53		74		4)	40		201	100.00%	

Ethno-Linguistic Affiliation

The most common dialect spoken by PAPs is *Bisaya/Binisaya*. It is the mother tounge of 52.7% of the respondents. It is followed by *Cebuano* with 26.9%, then by *Boholano* with 5%, and *Davaweño* with 3.5%. The remaining 11.9% are shared among the *Hiligaynon/Ilongo*, *Tagalog*, and *Ilocano* dialects. Please refer to **Table 5-4**.

Table 5-4	PAP's	s Ethno I	inguist	ic Affiliati	on							
Section		South			Cen	iter			North			
Sub- District	Т	oril	Τι	ıgbok	Ta	alomo	Bu	Ihangin	Bur	nawan	-	Total
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Ethno Lingu	istic Aff	iliation										
Bisaya/ Binisaya	37	34.9%	31	29.75%	1	0.94%	17	16.04%	20	18.87%	106	52.74%
Cebuano	6	11.1%	29	53.70%	1	1.85%	6	11.11%	12	22.22%	54	26.87%
Boholano	3	30.0%	4	40.00%	0	0.00%	1	10.00%	2	20.00%	10	4.98%
Davaweño	0	0.0%	2	28.57%	0	0.00%	3	42.86%	2	28.57%	7	3.48%
Hiligaynon/ Ilongo	1	12.5%	3	37.50%	0	0.00%	2	25.00%	2	25.00%	8	3.98%
Tagalog	6	66.7%	1	11.11%	0	0.00%	1	11.11%	1	11.11%	9	4.48%
llocano	0	0.0%	2	100.00%	0	0.00%	0	0.00%	0	0.00%	2	1.00%
Others	0	0.0%	2	40.00%	2	40.00%	0	0.00%	1	20.00%	5	2.49%
Total	53		74		4		30		40		201	100.00%

Residency of PAPs

Almost half of the respondents (**45.3**%) stated that they have been residents of the area from the 1990's and 2000's. There is also a significant number of respondents who have been residing in the area from the 60's to the 70's (26.9%). Please see **Table 5-5**.

Table 5-5	PAP's	Length c	of Stay									
Section		South			Ce	enter			North			
Sub- District	Toril Tugbok		gbok	Talomo		Bı	Ihangin	Bur	nawan	7	lotal	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Length of Sta	ay											
1930's	0	0.00%	1	33.33%	0	0.00%	2	66.67%	0	0.00%	3	1.49%
1940's	4	30.77%	5	38.46%	0	0.00%	2	15.38%	2	15.38%	13	6.47%
1950's	5	25.00%	9	45.00%	0	0.00%	3	15.00%	3	15.00%	20	9.95%
1960's	3	14.29%	10	47.62%	1	4.76%	3	14.29%	4	19.05%	21	10.45%
1970's	11	33.33%	11	33.33%	1	3.03%	5	15.15%	5	15.15%	33	16.42%
1980's	6	30.00%	8	40.00%	0	0.00%	2	10.00%	4	20.00%	20	9.95%
1990's	12	35.29%	12	35.29%	1	2.94%	1	2.94%	8	23.53%	34	16.92%
2000's	12	21.05%	18	31.58%	1	1.75%	12	21.05%	14	24.56%	57	28.36%
Total	53		74		4		30		40		201	100.00%

Socio-Economic Status

PAPs' standard of living and socioeconomic status is evaluated using the following indicators: (i) primary source of income, (ii) tenure on land occupied; (iii) access to basic social services ---source of lighting, water supply, toilet facilities, health and educational facilities and (iv) poverty threshold.

Table 5-6 presents the primary source of income of the respondents. As shown on the table, the main source of income is farming (26.4%), followed by own business (22.9%), and professional practice (15.9%). There is also a high percentage who have indicated that they are unemployed or no source of income (17.9%).

Table 5-6	PAP's	PAP's Primary Occupation										
Section		South	Center						North			
Sub- District	٦	Foril	Tu	gbok	Ta	alomo	Bu	hangin	Bu	nawan	Total	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num-ber	%
Primary Occu	upation											
Farming	18	33.96%	24	45.28%	1	1.89%	4	7.55%	6	11.32%	53	26.37%
Skilled & Unskilled	3	17.65%	5	29.41%	0	0.00%	5	29.41%	4	23.53%	17	8.46%
Professional Practice	13	40.62%	6	18.75%	1	3.12%	8	25.00%	4	12.50%	32	15.92%
Own Business	7	15.22%	20	43.48%	0	0.00%	7	15.22%	12	26.09%	46	22.89%
Agricultural Product	2	28.57%	2	28.57%	1	14.29%	1	14.29%	1	14.29%	7	3.48%
Pension	0	0.00%	2	33.33%	0	0.00%	3	50.00%	1	16.67%	6	2.99%
Others	1	25.00%	1	25.00%	1	25.00%	0	0.00%	1	25.00%	4	1.99%
None	9	25.00%	14	38.89%	0	0.00%	2	5.56%	11	30.56%	36	17.91%
Total	53	1	74		4	1	30	1	40		201	100.00%

Majority of the PAPs (79.6%) own their land; the rest are tenants (8.0%), and lessees who are occupying land with permit (11.9%). Distribution of type of land tenure is presented in **Table 5-7.**

Table 5-7	PAP's	s Tenure o	on Lan	d									
Section		South			Cei	nter			North				
Sub- District	-	Toril Tugbok			Talomo E			ıhangin	Bu	nawan	Total		
	Num- ber	%	Num -ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	
Tenure on La	nd												
Owner	44	27.50%	60	37.50%	4	2.50%	28	17.50%	24	15.00%	160	79.60%	
Tenant	6	37.50%	6	37.50%	0	0.00%	2	12.50%	2	12.50%	16	7.96%	
Lessee	2	8.33%	8	33.33%	0	0.00%	0	0.00%	14	58.33%	24	11.94%	
Institutional	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.50%	
Total	53		74		4		30		40		201	100.00%	

In terms of educational attainment, result shows that majority of respondents for both sexes have no formal schooling with 33.8% for husbands, and higher for females with 49.2%. Please see **Tables 5-8** and **5-9**.

Table 5-8	PAP's	Educatio	nal Atta	inment -	Husban	ıd						
Section		South			Ce	enter			North			
Sub- District	Toril Tugbo			gbok	ok Talomo Bu			uhangin Bunawan			Total	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num - ber	%	Num - ber	%
Educational A	Attainme	nt - Husba	ind									
Primary	8	29.63%	12	44.44%	0	0.00%	4	14.81%	3	11.11%	27	13.43%
Secondary	11	27.50%	11	27.50%	0	0.00%	5	12.50%	13	32.50%	40	19.90%
Tertiary	15	40.54%	17	45.95%	0	0.00%	3	8.11%	2	5.41%	37	18.41%
Post Graduate	1	14.29%	1	14.29%	0	0.00%	3	42.86%	2	28.57%	7	3.48%
None	16	23.53%	26	38.24%	0	0.00%	14	20.59%	12	17.65%	68	33.83%
No Answer	2	9.09%	7	31.82%	4	18.18%	1	4.55%	8	36.36%	22	10.95%
Total	53 74			4 30			30 40			201	100.00%	

Table 5-9	PAP's	s Educatio	nal Att	ainment -	Wife							
Section		South			С	enter			North			
Sub- District	Toril		Т	ugbok	Т	alomo	В	uhangin	В	unawan	-	Fotal
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Educational	Attainm	ent - Wife										
Primary	4	16.00%	9	36.00%	0	0.00%	3	12.00%	9	36.00%	25	12.44%
Secondary	3	14.29%	4	19.05%	1	4.76%	7	33.33%	6	28.57%	21	10.45%
Tertiary	10	27.78%	17	47.22%	1	2.78%	4	11.11%	4	11.11%	36	17.91%
Post Graduate	0	0.00%	0	0.00%	1	25.00%	1	25.00%	2	50.00%	4	1.99%
Vocational	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.50%
None	33	33.33%	38	38.38%	1	1.1%	13	13.13%	14	14.14%	99	49.25%
No Answer	2	13.33%	6	40.00%	0	0.00%	2	13.33%	5	33.33%	15	7.46%
Total	53	•	74		4	•	30		40	•	201	100.00%

Table **5-10 and Figure 5-1** shows that majority of interviewed PAPs source of drinking water are from Level III (46.8%); i.e., house connections through the Davao City Water District (DCWD), and Level II (34.8%) water supply systems. In terms of source of lighting, majority, or 78.6% are serviced by the Davao Light and Power Corporation (DLPC); 10.4% admitted they obtain power from illegal connections, some still utilize kerosene lamps, and the rest are either using oil lamps, and petromax (Please see **Table 5-11** and **Figure 5-2**).

Table 5-10	PAP's	s Source o	of Wate	r for Drin	king							
Section		South			С	enter			North			
Sub- District	Toril Tugbok			gbok	k Talomo			hangin	Bui	nawan		Total
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Source of Wa	ater for	Drinking								·		
Level 1	5	9.43%	1	1.35%	0	0.00%	2	6.67%	8	20.00%	16	7.96%
Level II	23	43.40%	9	1.35%	3	0.00%	9	30.00%	26	65.00%	70	34.83%
DCWD	17	32.08%	59	12.16%	1	75.00%	14	46.67%	3	7.50%	94	46.77%
Spring Box	2	3.77%	1	79.73%	0	25.00%	0	0.00%	0	0.00%	3	1.49%
Illegal Connection	0	0.00%	2	1.35%	0	0.00%	0	0.00%	0	0.00%	2	1.00%
Private Owned	2	3.77%	0	2.70%	0	0.00%	0	0.00%	0	0.00%	3	1.49%
None	3	5.66%	1	1.35%	0	0.00%	1	3.33%	1	2.50%	5	2.66%
Others	1	1.89%	1	0.00%	0	0.00%	0	0.00%	2	5.00%	8	3.96%
Total	53	•	74		4		30		40		201	100.00%

Table 5-11	PAP's	s Source o	f Light	ing								
Section		South			C	enter			North			
Sub- District		Toril	Tugbok		Talomo		Buhangin		Bunawan		Total	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num -ber	%	Num- ber	%
Source of Lig	hting											
Davao Light Power Corp.	41	25.95%	60	37.397 %	4	2.53%	25	15.82%	28	17.72%	158	78.61%
Kerosene Lamp	2	28.57%	4	57.14%	0	0.00%	0	0.00%	1	14.29%	7	3.48%
Petromax	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.50%
Oil Lamp	0	0.00%	1	50.00%	0	0.00%	1	50.00%	0	0.00%	2	1.00%
Illegal Connection	5	23.81%	4	19.05%	0	0.00%	3	14.29%	9	42.86%	21	10.45%
None	4	33.33%	5	41.67%	0	0.00%	1	8.33%	2	16.67%	12	5.97%
Total	53	·	74		4	·	30		40	·	201	100.00%

For their health needs 50.2% depend on barangay health centers. A few (11.9%) go to hospitals, and the rest access private clinics and hospitals (**Table 5-12** and **Figure 5-3**). In terms of sanitation, majority or 68.0% use semi-flush toilet facilities, 25.0% with flush facilities, and a few still using the Antipolo and open pit type (**Table 5-13** and **Figure 5-4**). For their mode of transportation, the top three answers are: (i) tricycles and pedicabs (59.7%), and (ii) jeep, bus, and tricycle (15.9%), and (iii) jeepney (12.4%), which accounts for 88.0% of total respondents. (**Table 5-14**).











Figure 5-1 PAPs' Source of Drinking Water













Table 5-12	PAP's	s Type of	Health	Facility								
Section		South			C	Center			North			
Sub- District	-	Toril	Tugbok		Та	lomo	Bul	nangin	Bunawan		Total	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Type of Healt	h Hacili	ity										
Health Center	23	22.77%	33	32.67%	4	3.96%	17	16.83%	24	23.76%	101	50.25%
Private Clinic	1	6.25%	9	56.25%	0	0.00%	3	18.75%	3	18.75%	16	7.96%
Hospital	12	50.00%	10	41.67%	0	0.00%	1	4.17%	1	4.17%	24	11.94%
Center & Clinic	3	17.65%	4	23.53%	0	0.00%	3	17.65%	7	41.18%	17	8.46%
All	3	21.43%	10	71.43%	0	0.00%	0	0.00%	1	7.14%	14	6.97%
Others	0	0.00%	1	33.33%	0	0.00%	1	33.33%	1	33.33%	3	1.49%
None	11	42.31%	7	26.92%	0	0.00%	5	19.23%	3	11.54%	26	12.94%
Total	53	·	74		4		30	·	40		201	100.00%

Table 5-13	PAP's	s Toilet Fa	cility									
Section		South			С	enter			North			
Sub- District	-	Toril Tugb			c Talomo Buł			ihangin Bunawan			Total	
	Num- ber % Num- ber % Num- ber % Num- ber %									Num- ber	%	
Toilet Facility	/											
Open Pit	2	50.00%	1	25.00%	0	0.00%	0	0.00%	1	25.00%	4	2.00%
Antipolo	2	50.00%	2	50.00%	0	0.00%	0	0.00%	0	0.00%	4	2.00%
Semi-flush	30	22.06%	49	36.03%	3	2.21%	20	14.71%	34	25.00%	136	68.00%
Flush	16	32.00%	20	40.00%	1	2.00%	8	16.00%	5	10.00%	50	25.00%
None	3	42.86%	2	28.57%	0	0.00%	2	28.57%	0	0.00%	7	3.00%
Total	53		74		4		30		40		201	100.00%

Table 5-14	PAP's	s Mode of	Trans	portation	I							
Section		South			Ce	nter			North			
Sub-District		Toril	Tu	gbok	Та	lomo	Bu	Ihangin	Bui	nawan	Total	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Mode of Trans	sportat	ion										
Jeepney	5	20.00%	12	48.00%	0	0.00%	5	20.00%	3	12.00%	25	12.44%
Tricycle/ Pedicab	36	30.00%	44	36.67%	2	1.67%	13	10.83%	25	20.83%	120	59.70%
Jeepney and bus	9	28.12%	14	43.75%	0	0.00%	6	18.75%	3	9.38%	32	15.92%
Habal-Habal	1	5.00%	3	15.00%	2	10.00%	5	25.00%	9	45.00%	20	9,95%
Taxicab	2	50.00%	1	25.00%	0	0.00%	1	25.00%	0	0.00%	4	1.99%
Total	53		74		4		30		40		201	100.00%



















Figure 5-4 **Toilet Facilities of PAPs**

2

As shown in **Table 5-15** and **Figure 5-5** a relatively high percentage of the surveyed households (**71.64%**) are earning **above the poverty threshold** of P 17,040 for a family of four (4) in Region XI DAVAO Region; 7% have annual household incomes that are below the poverty threshold; while the remaining 13.9% are living below the food threshold¹.

Table 5-15 P	overty	Thresho	ld Amo	ong PAPs	;							
Section		South			Cer	iter			North			
Sub-District	Sub-District Toril		Т	ugbok	Tal	omo	Buh	angin	Bur	nawan	Total	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Poverty Thresho	old Amo	ng PAPs										
Above poverty threshold	37	18.41%	53	26.37%	3	1.49%	24	11.94%	27	13.43%	144	71.64%
Below poverty threshold but above food threshold	3	1.49%	6	2.99%	1	0.50%	0	0.00%	4	1.99%	14	6.97%
Below food threshold	7	3.48%	11	5.47%	0	0.00%	2	1.00%	8	3.98%	28	13.93%
No Response	6	2.99%	4	1.99%	0	0.00%	4	1.99%	1	0.50%	15	7.346%
Total	53		74		4		30		40		201	100.00%

Available skills of male and female respondents are shown in **Table 5-16** and **Table 5-17**, respectively. As shown in these tables, all (100%) of the interviewed male respondents can be tapped for local labor requirements during construction phase. In terms of female respondents almost half (49.7%) can engage in small enterprises such as eateries during construction period to be able to augment their family income.

Food threshold is the minimum income/expenditure required for a family/individual to meet the basic food needs, which satisfies the nutritional requirements for economically necessary and socially desirable physical activities





0%

75%

25%



Figure 5-5 Poverty Thresholds Among PAPs

20%

30%

Above poverty threshold Below poverty threshold Below food threshold

0%

Above poverty threshold Below poverty threshold Below food threshold

Table 5-16 P	AP's Av	vailable S	kills o	of Men								
Section		South			Ce	nter			North			
Sub-District	-	Toril	Τι	ıgbok	Та	lomo	Bu	hangin	Bui	nawan		Total
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Available Skills	of Men											
Labor	13	27.66%	12	25.53%	2	4.26%	5	10.64%	15	31.91%	47	23.38%
Carpentry	7	20.00%	14	40.00%	0	0.00%	5	14.29%	9	25.71%	35	17.41%
Masonry	0	0.00%	4	66.67%	1	16.67%	1	16.67%	0	0.00%	6	2.99%
Heavy equipment Operator	0	0.00%	1	50.00%	0	0.00%	1	50.00%	0	0.00%	2	1.00%
Mechanic	1	25.00%	0	0.00%	0	0.00%	2	50.00%	1	25.00%	4	1.99%
Driving	13	23.64%	21	38.18%	1	1.82%	8	14.55%	12	21.82%	55	27.36%
None	12	33.33%	15	41.67%	0	0.00%	7	19.44%	2	5.56%	36	7.96%
Utility and others	7	43.75%	7	43.75%	0	0.00%	1	6.25%	1	6.25%	16	17.91%
Total	53		74		4		30		40		201	100.00%

Table 5-17	PAP's A	Available	Skills o	of Wome	า							
Section		South			C	enter			North			
Sub-District	Toril		Tuç	jbok	Та	Talomo		Buhangin		nawan	Т	otal
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Available Skill	s of Wor	nen										
Cook/ Maintenance	32	32.00%	32	32.00%	1	1.00%	17	17.00%	18	18.00%	100	49.75%
Sewer	1	5.56%	5	27.78%	1	5.56%	3	16.67%	8	44.44%	18	8.96%
Timekeeper/ Clerk	1	14.29%	3	42.86%	0	0.00%	1	14.29%	2	28.57%	7	3.48%
Seedling Nursery Caretaker	2	18.18%	6	54.55%	0	0.00%	0	0.00%	3	27.27%	11	5.47%
House help	5	26.32%	10	52.63%	1	5.26%	1	5.26%	2	10.53%	19	9.45%
None	5	20.00%	12	48.00%	0	0.00%	5	20.00%	3	12.00%	25	10.45%
Others	7	33.33%	6	28.57%	1	4.76%	3	14.29%	4	19.05%	21	12.44%
Total	53		74		4		30		40		201	100.00%

When asked if they were in favor of the Davao Bypass project, a significant majority (83.1%) responded "**Yes**". Among the reasons cited, the following were mentioned the most number of times:

For "Yes" answer:

- (i) It will bring economic development to the City
- (ii) Better accessibility
- (iii) It will improve living conditions in the barangay

For "No" answer (16.9%):

(i) It will entail loss of land and livelihood derived from it

Table 5-18	Projec	t Accepta	bility									
Section		South			Cent	ter			North			
Sub-District	Sub-District Toril Tugbok Talomo Buhangin Bunawan										Total	
	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%	Num- ber	%
Project Acepta	bility											
Yes	41	24.55%	65	38.92%	4	2.40%	25	14.97%	32	19.16%	167	83.08%
No	12	35.29%	9	26.47%	0	0.00%	5	14.71%	8	23.53%	34	16.92%
Total	53		74		4		30		40		201	100.00%

When asked if they have other concerns about the project, the following are the top answers:

- (i) Just compensation for lost assets;
- (ii) Early compensation for affected properties ad crops;
- (iii) Implement livelihood programs
- (iv) That the project be implemented soon

6. Potential Impacts and Recommended Mitigation Measures

During the alignment study, the main criteria used to determine road alignment was to select the option that will entail minimal involuntary resettlement and disturbance to the community, particularly in terms of displacement. Despite this, it is still inevitable that some properties would be affected. The duration and extent of resettlement impact shall be both temporarily (i.e., during construction period only), as well as permanently. Project impacts are classified into two (2) main types, namely:

- (i) **Physical** Impact on Land and Improvements
- (ii) **Socio-Economic** Impact on Livelihood (agricultural and agro-industrial) and on Vulnerable Groups (Female and Elderly-headed families)

6.1 Impact on Land and Improvements

Impact on Land – Main Bypass Alignment

Table 6-1 shows the number of marginally and severely affected landowners per barangay. As defined in LARRIP Policy 3rd Edition **severely affected** land are those where **area to be acquired is greater than 20%** of the total area of land, or when the remaining portion after land take is no longer economically viable. Considering that the Project is still at the Feasibility Study stage and no parcellary surveys have been conducted, severity of impact may change after conduct of such. Nevertheless any change or variation from this RAP report will be validated during the Detailed Engineering Design.

A listing of individual lots, with details such as impacted area, approximate total lot area (based on tax maps), class based on comprehensive zoning ordinance (residential, commercial, agro-industrial, industrial) are provided as **Appendix D**. Please note that for flexibility, basis of valuations presented are of two types, namely: (i) BIR Zonal Values and (ii) Schedule of Fair Market Values of Davao City in accordance with City Ordinance 040-07 Series of 2007, also known as an Ordinance Fixing the Schedule of Fair Market Values (SFMV) of Real Properties Within the Territorial Jurisdiction of Davao City for the 2008 General Revision which took effect in 2009.

City/Sub-District/Barangay	Total Number. of Lots	Severe	Marginal	Total Area (in Ha)
DAVAO CITY				
TORIL				
Sirawan	9	4	5	5.77
Marapangi	21	8	13	11.66
Bato	24	14	10	11.78
Alambre	7	4	3	3.23
Bangkas Heights	7	3	4	5.17
Mulig	24	10	14	15.35
TUGBOK				
Mintal	22	14	8	10.05
Tugbok	16	10	6	7.37
Tacunan	46	22	24	30.66
TALOMO				
Magtuod	11	6	5	7.68
BUHANGIN				
Waan	2	0	2	5.75
Tigatto	7	0	7	8.35
Cabantian	28	14	14	11.66
Communal	9	4	5	5.79
Indangan	9		9	13.04
BUNAWAN				
Mudiang	20	11	9	15.84
Tibungco	15	6	9	11.70
Mahayag	19	6	13	17.09
San Isidro	23	6	17	22.40
Lasang	11	1	10	15.96
PANABO CITY				
J. P. Laurel	1	1	0	1.43
тот	AL 331	144	187	237.76

Mitigation Measures:

For landowners whose lots are severely affected, the least that can be done to alleviate adverse impact is to compensate them at *fair market values* for land and at *replacement cost* for structures (if any). For those with remaining land that are still economicall viable (marginal loss), carefully design of bypass alignment, particularly those with high

embankment and cut sections must be done so that remaining portion could still maintain, or better yet, improve its economic value.

Impact on Land – Tunnel Section

As shown in **Table 6-1**, there are approximately 11 lots in Brgy. Magtuod that would be traversed by the Bypass alignment. Of these, six (6) will be severely, and 5 will only be marginally impacted by R-O-W acquisition. These areas are actually where the **tunnel section** will be located. Although no direct impact is expected on the surface, which is around 200 meters above the tunnel location, careful consideration must be given to avoid the same fate experienced by the National Power Corporation in 2007 when they lost their case against the owners of land above their 115-meter deep tunnel through an affirmation of the Court of Appeals's decision (1996 and 2005) by the Supreme Court in 2007 (Please refer to Appendix A for a full account of the SC's decision).

Mitigation Measures:

Although the case of NAPOCOR seem very similar to the tunnel section of the Bypass, it is important to note that there are also glaring differences such as:

NAPOCOR Tunnel Case:

- The <u>landowners were never informed</u> that a tunnel will be constructed 115 m below their parcels of land;
- (ii) <u>No consultation meeting</u> with the landowners was undertaken by NAPOCOR prior to the construction of the tunnel;
- (iii) NAPOCOR maintained that, "the sub-terrain portion where the underground tunnels were constructed <u>does not belong to respondents</u> because, even conceding the fact that respondents owned the property, their right to the subsoil of the same does not extend beyond what is necessary to enable them to obtain all the utility and convenience that such property can normally give";
- (iv) NAPOCOR asserted that "Respondents were still able to use the subject property even with the existence of the tunnels, citing as an example the fact that one of the respondents had established his residence on a part of the property"
- (v) NAPOCOR concluded that "the underground tunnels 115 meters below respondents' property could not have caused damage or prejudice to

respondents and their claim to this effect was, therefore, purely conjectural and speculative";

Davao City Bypass Case:

- Stakeholders² were informed that a tunnel will be constructed 200 m below their parcels of land during IEC with LGUs and public consultation meetings;
- (ii) Consultation meetings with stakeholders were undertaken, not only once, but for three (3) times as part of the EIS and RAP preparation process;
- (iii) DPWH is aware, and as affirmed through the legal framework of this RAP that "the sub-terrain portion where the underground tunnel will be constructed <u>belong to land owners above it</u> by virtue of Article 437 of the Civil Code of the Philippines;

Based on the foregoing, the following recommendations are deemed proper and in the interest of both parties:

- (i) Include lots above the tunnel section in the Parcellary Survey to be conducted during Detailed Engineering Design (DED);
- (ii) Considering that said lots were already included in the RAP Budget provided in this Report, provide the same allotment in the R-O-W Cost;
- (iii) During R-O-W acquisition, apply the same modes of acquisition of lands above tunnel in the same manner as those along the main Bypass alignment;
- (iv) In case an agreement is reached during negotiation that the landowners' preference to stay is granted by DPWH in exchange for compensation, a written agreement must be carefully drafted, or an annotation in the Title be executed to avoid future complaints by heirs of the landowners;

Impact on Structures and Improvements

Impact on owners of structures and improvements would be in terms of losing mainly residential structures to give way to Right-of-Way acquisition of lots for the Bypass. Based on actual site investigation using approximate ground location of the alignment, approximately **71** structures would be displaced. Of these, **58** are residential dwellings.

2

Consisting of the Barangay Chairperson and five (5) barangay council members of Brgy. Magtuod

Based on interviews with structure owners, **35** of these are situated on leased private land, whereas **23** are on owned land. According to the owners of **29** structures, they are paying rent to their relatives who are the owners of the land. The remaining owners of six (6) structures are renting to a non-relative owner of the property.

Table 6-2 shows a list of these structures per sub-district and barangay. Also included in the table is the structure owner's type of tenure on land, area of the structure, and type of use. Please note that since there is no parcellary survey done yet, all structures surveyed are assumed as severely affected. For other details, such as the valuation of each structure based on replacement cost as defined in Section 10 of the IRR for R. A. 8974, please refer to **Appendix E**. **Appendix F** contains the photographs of tagged structures, and **Appendix G** the sketch maps of affected structures.

Table 6-2. Project-Affected	Structures in	Davao City	
City/Sub-District/Barangay	Total	Location in Project	Structure Usage
	Number. of	Section	
	Structures		
TUGBOK			
Mintal	26	10+300 to 11+000	Residential dwelling - 24
			Sari-sari store – 1
			Fence - 1
Tacunan	1	12+400 to 12+900	Residential dwelling –1
BUNAWAN			
Mudiang	4	32+000 to 36+900	Residential dwelling -4
Tibungco	9	34+100 to 34+500	Residential dwelling -8
			Storage structure (on-going const.) - 1
Mahayag	13	36+600 to 36+900	Residential dwelling –11
			Sari-sari store – 1
			Storage structure (bodega)- 1
San Isidro	10	38+100 to 38+500	Residential dwelling –4
			Poultry – 2
			Storage structure (bodega) – 2
			Chapel – 1
			Greenhouse – 1
Lasang	8	44+000 to 44+200	Residential dwelling – 6
			Lumber store – 1
			Storage structure (bodega)- 1
TOTAL	71		Total Residential Dwellings: 58
			Total Non-Residential Structures: 13

Mitigation Measures:

For structure owners who are leasing land, the following are recommended:

(i) Assuming that owners of the land they are leasing would allow them to transfer in areas not affected by R-O-W acquisition, prompt payment for structures at replacement cost must be made so that they can resettle with minimum disturbance;

- (ii) If their relatives would not allow them to transfer in other parts of the affected land, prompt payment for structures at replacement cost must be made so that they can resettle in another site. They should be assisted in order to have easy access to socialized housing sites identified in the 2013-2022 Comprehensive Zoning Ordinance of Davao City (Please refer to Figure 6-1). For affected families whose average annual income are below the poverty threshold set by the National Statistical Coordination Board (NSCB) for Davao Region, they should be assisted to have access to a Community Mortgage Program (CMP) of the government so that they can acquire their own land at affordable monthly amortizations.
- (iii) In the case of Item (ii) above, additional disturbance compensation as well as transportation assistance must be accorded to the affected families, as stipulated in the DPWH's LARRIPP Series of 2007.

Davao City has provided shelter to the underprivileged citizens of the city displaced by human made and natural calamities, demolitions brought about by development as well as provided basic services like water, light, and roads and ensured the security of tenure in resettlement areas. This activity ensures the economic uplift through provision of livelihood opportunities. **Table 6-3** shows a case of relocation sites by Davao City to who have to relocate by construction of river bank, open canal and ROW acquisition.

Table	6-3 Relocation Sites Which Were Provided	by Davao City			
No.	Project Area	Total Area (m [,])	No. of Families	Type of Land Occupied	Type of Tenure
1	Mintal Relocation Area Barangay Sto Niño Tugbok District	385,600	1,743	Gov. Land	Amortizing
2	Panacan Relocation Area Barangay Panacan, Bunawan District	105,928	666	Gov. Land	Donation
3	Tibungco Relocation Area Barangay Tibungco, Bunawan District	200,200	1,322	Gov. Land	Amortizing
4	Malagamot Relocation Area Bunawan District	60,700	205	Gov. Land	Amortizing
5	Catalunan Grande Relocation Area Barangay Matina Pangi, Talomo District	40,600	243	Gov. Land	Amortizing
6	Tibungco Relocation Area Barangay Tibungco, Bunawan District (Pacifico Dizon Property)	28,098	Unknown	Gov. Land	Amortizing



6.2 Impact on Livelihood

Impact on livelihood would be in terms of the loss of trees and crops that serve as means of livelihood of affected persons. As mentioned in Davao City's latest Comprehensive Lans use Plan (CLUP), production of agricultural products such fruits and industrial crops, "*play a vital role as sources of income for residents and farm workers in the city*".

Table 6-4 and **Table 6-5** shows the estimated number of trees and crops (banana hills) that will be affected by the Project per Sub-District. Details on the number, type, and valuation of fruit trees (mango and banana), industrial crop (coconut), and intercropped trees () are provided in **Appendix H**. Note that valuation used is based on Davao City's Ordinance No. 040-07, Series of 2007 which took effect in 2009, entitled "Ordinance Fixing the Schedule of Fair Market Values (SFMV) of Real Properties Within the Territorial Jurisdiction of Davao City for the 2008 General Revision. **Appendix I** shows the assessment schedule for crops and land.

Aside from owners of plantations, there are around **19 tenants** to be affected by the Project. The corresponding entitlements are included in the Entitlement Matrix in Chapter 7 of this Draft RAP.

Table 6-4	Affected Lots and	Types of Cultiv	vated Crops			
Sub District	Parangay	Affected	No. of L	ots Domin	antly Cultiva	ted with
Sub District	Barangay	lots	Banana	Mango	Coconut	Various Crops
	Sirawan	9		2	3	
	Marapangi	21	6	8		
	Bato	24		3	3	
Toril	Alambre	7		2	3	
	Bangkas heights	7				
	Mulig	24			10	7
	Mintal	22		3		7
Tugbok	Tugbok	16				
	Tacunan	46	2	9	4	4
Talomo	Magtuod	11	2			
	Waan	2	2	1		
	Tigatto	7	1			
Buhangin	Cabantian	28	8	2		
	Communal	9	2	1		
	Indangan	9	1			
	Mudiang	20		1	4	
	Tibungco	15	5		8	
Bunawan	Mahayag	19			9	7
	San Isidro	23				6
	Lasang	11	8			
Panabo City	Jp Laurel	1				
	Total	331	37	32	44	31
Table 6-5. Impact on	Trees and	Crops in Davad	o City			
--------------------------------	--------------------------------	----------------	-------------------------------------	----------------	---	----------------
City/Sub- District/Barangay	Total No. of Fruit Trees	Value (PhP)	Total No. of Industiral Crops	Value (PhP)	Total Number of Intercropped Trees	Value (PhP)
TORIL	2,850	980,780	464	139,200	1,813	453,250
TUGBOK	1,190	850,020	128	38,400	1,737	434,250
TALOMO	898	54,770	30	9,000	258	64,500
BUHANGIN	8,341	610,820	38	11,400	141	35,250
BUNAWAN	4,486	308,460	474	142,200	3,390	847,500
TOTAL	17,765	2,814,670	997	340,200	7,339	1,834,750
				TOTAL	DAVAO CITY	4,979,800
PANABO CITY	1	950	22	6,600	-	-
GRAND TOTAL	17,766	2,815620	1,019	346,800	7,339	4,987,350

Mitigation Measures:

To ensure that the project affected owners of trees and crops that will be affected by the project would not be disadvantaged, it is important that the valuation of fruit and industrial crops are based on fair market value, as what was done in the computation of the values in **Table 6-5**.

6.3 Impact on Gender and Other Vulnerable Groups

The project has to pay particular attention to ensure that women are the recipients of the compensation pertaining to their activities and to ensure that women who are de-facto household heads are clearly listed as beneficiaries of compensation and rehabilitation proceedings under the loan. Special attentions will also be given to identifying and addressing the needs of disadvantaged groups such as the landless, the poor, female-headed households, the elderly and the disabled, through measures included in the RAP to try and improve (over and above cash compensations and restoration of) their livelihoods. Shown in **Table 6-6** is the approximate number of families that may be vulnerable to impoverishment if not properly compensated and assisted, particularly those families that are headed by Females, Elderly Males, and most especially Elderly Females, which comprise **23.5%**, **8.96%**, and **14.93%**, of the affected population, respectively. As shown on the table, only a little more than 50% are headed by Male.

Table 6-6. Impact or	Gender and O	ther Vulnerable	Groups						
		Head of the Family							
Sub-District	Female	Elderly Female	Male	Elderly Male	Total				
TORIL	13	7	19	14	53				
	24.53%	13.21%	35.85%	26.42%					
TUGBOK	16	8	42	8	74				
	21.62%	10.81%	56.76%	10.81%					
TALOMO	0	0	4	0	4				
	0.00%	0.00%	100.00%	0.00%					
BUHANGIN	9	1	16	4	30				
	30.00%	3.33%	53.33%	13.33%					
BUNAWAN	13	2	21	4	40				
	32.50%	8.96%	50.75%	14.93%					
TOTAL	51	18	102	30	201				
TOTAL	23.57%	8.96%	50.75%	14.93%	100.00%				

It is important to note at this point that as certified by the National Commission on Indigenous Peoples (NCIP), there are no areas covered by a Certificate of Ancestral Domain Title (CADT) will be affected by the Project. A copy of the Certificate of Non-Overlap (CNO) is attached as **Appendix J**.

7. Compensation and Entitlements

Valuation for compensating loss of land shall be in accordance with Section 5 of R.A. 8974. For flexibility purposes, two (2) bases for land valuation are presented in this RAP. First is BIR zonal value, and second, valuation based on Davao City Ordinance No, 040-07 that took effect in 2009. As an added guide to determine prevailing market value in Davao City, interviews were undertaken with government financing institutions such as the Land Bank, Development Bank of the Philippines, and Philippine National Bank were sought. Shown below are said Bank's opinions regarding market value information.

Item	Location	Classification	Market Value Ra	ange (per sq.m.)
1	Mahayag	Agricultural	Php80	PhP60
2	Mudiang	Agricultural	80	60
3	Mintal	Residential	800	600
		Agricultural	60	50
4	Lasang	Residential	600	500
		Industrial	3000	2500
		Agricultural	70	60
5	San Isidro	Agricultural	80	60
6	Tacunan	Agricultural	80	60
7	Tibungco	Residential	1500	1000
		Agricultural	100	90

For dwellings and other structures, it shall be based on replacement cost as defined in Section 10 of its Implementing Rules and Regulations (IRR), and the LARRIPP of DPWH. Small-scale commercial establishments like sari-sari stores, which will incur temporary decrease in income due to limited access/frontage, shall also be provided income rehabilitation assistance. Inconvenience allowance shall be given to PAPs with severely affected structures, which require relocation and new construction.

Although there are approxiamtely **35** families who own residential dwellings but are just leasing land, **29** of these are staying with their relatives' land and only **six** (**6**) are staying in a non-related lessor of land. Although the owners of land that they are now occupying may decide to allow them to transfer in areas within the same properties, it is considered more advantageous for these families to be relocated in a land that they can own. That is, as mentioned and illustrated in the previous Section, there area areas in Davao City that are earmarked as "**socialized housing**" sites. However the affected families' decision must also be respected if they would opt to continue leasing the land from their relatives. What is important is that they are provided with options which may improve their standards of living.

Assuming that the 35 families opt to be relocated, they should be provided free transportation (including those who opt to go back to their province) upon their transfer to the relocation sites. For details Compensation and Entitlement on the please refer to **Table 7-1**.

Type of Loss	Application	Entitled Person	Compensation/Entitlements					
LAND (Classified as Residential and Mixed, Commercial, Residential)SEVERE IMPACTMore than 20% of the total landholding loss or where less 20% lost but the remaining land holding become economically unviable*: 144 Lots* e.g., In case farmland is divide by the new alignment and hard continue product activity		Project Affected Person (PAP) with Transfer Certificate of Title (TCT) or Tax Declaration (TD, which can be legalized to full title)	 PAP will be entitled to: Cash compensation for loss of entire land in accordance with RA. 8974 at amended and its IRR, and the DPWH-LARRIPP. 3-Edition 2007. If feasible, land for land will be provided in terms of a new parcel of land of equivalent productivity, at a location acceptable to PAFs. Cash compensation for damaged crops at market value at the time of taking. If applicable, rehabilitation assistance in the form of skills training equivalent to the amount of Php15, 000 per family, if the present means of livelihood no longer viable and the PAP will have to engage in a new income activity 					
		Titleholders of free or homesteads patens under Commonwealth Act (C.A.) 141, also known as Public Lands Act	PAP will be entitled to:Cash compensation for land improvement only.					
		Lessees of agricultural land	PAP will be entitled to:Disturbance compensation equivalent to five times the average annual gross harvest during the last five preceding calendar years.					
		Tenants of agricultural lands 19 Tenants	PAP will be entitled to:Financial assistance equivalent to the average annual gross harvest for the last 3 years and not less that PhP15, 000 per ha					
	MARGINAL IMPACT Less than 20% of the total landholding lost or where the remaining land holding is still viable for use: 187 Lots	PAP with TCT or Tax Declaration (TD, which can be legalized to full title)	 PAP will be entitled to: Cash compensation for affected land. Valuation of compensation shall be the same as described above for PAPs holding TCT or TD, which can be legalized to full title 					
		Titleholders of free or homesteads patens under C.A.141	PAP will be entitled to: Cash compensation for improvement on affected land. 					

³ For details, see chapter 13.10.3 (2) Republic Act 8974 (R.A. 8974) "An Act to Facilitate the Acquisition of Right-of-Way, Site or Location for National Government Infrastructure Projects (November

⁴ In this term, "no longer viable" means that if the means of livelihood is land-based, and the area to be acquired is greater than 20% of the total land area (i.e., severely affected), or where less than 20% is acquired but is remaining land will not be suitable for continuing livelihood activity. Viability can only be validated after Parcellary Survey

Type of Loss	Application	Entitled Person	Compensation/Entitlements
STRUCTURES (Classified as Residential/ Commercial/ Public Infrastructure)	SEVERE IMPACT More than 20% of the total landholding loss or where less than 20% lost but the remaining structures no longer function as intended or no longer viable for continued use	PAP with TCT or Tax Declaration (TD, which can be legalized to full title) 23 PAPs	 PAP will be entitled to: Cash compensation for entire structure at replacement cost Inconvenience allowance equivalent to P10,000 per PAF who needs to transfer elsewhere as a result of land acquisition
	71 Structures	PAP without TCT	PAP will be entitled to:Cash compensation for entire structure at replacement cost
		PAPs with small scale commercial establishments 2 PAPs with sari-sari stores 1 PAP with lumber store 2 PAPs with poultry	 PAP will be entitled to: Cash compensation for entire structure at replacement cost For loss of business/income, PAPs will be entitled to an income rehabilitation assistance not to exceed PhP 15,000 for severely affected structures, or to be based on the latest copy of the PAF's Tax record for the period corresponding to the stoppage of business activities.
		Project-Affected Owners of Structure who are leasing on land occupied 35 PAPs	 PAP will be entitled to: Cash compensation for entire structure at replacement cost If PAF prefers to be relocated, access to socialized housing shall be offered by Davao City, subject to qualification requirements in socialized housing. Rehabilitation assistance in terms of skills training and other development activities) equivalent to PhP15,000 per family per municipality will be provided in coordination with other government agencies if the present means of livelihood is no longer viable and the PAF will have to engage in a new income activity Appropriate component of the Livelihood Restoration and Improvement Program

Type of Loss	Application	Entitled Person	Compensation/Entitlements
	MARGINAL IMPACT Less than 20% of the total landholding lost or where the remaining structure can still	PAP with TCT or Tax Declaration (TD, which can be legalized to full title)	 PAP will be entitled to: Cash compensation for affected portion of the structure to be computed based on replacement cost
	function and is viable for continued use	PAP without TCT	 PAP will be entitled to: Cash compensation for affected portion of the structure to be computed based on replacement cost
	MARGINAL IMPACT Less than 20% of the total landholding lost or where the remaining structure can still function and is viable for continued use	PAPs with small-scale commercial establishments	 PAP will be entitled to: For loss of business/income, PAPs will be entitled to an income rehabilitation assistance not to exceed P 15,000 for severely affected structures, or to be based on the latest copy of the PAF's Tax record for the period corresponding to the stoppage of business activities.
OTHER IMPROVEMENTS (OTHER NON- DWELLING STRUCTURES)	SEVERELY OR MARGINALLY AFFECTED	PAP with or without TCT, tax declaration, etc. 1 fence 1 chapel (privately owned) 1 Greenhouse 5 storage structures (bodega)	 PAP will be entitled to: Cash compensation for affected improvements at replacement cost.
(TREES, CROPS)		Owners of: 1,118 mango trees	 Cash compensation at fair market value based on City Ordinance No, 040-07[,] that took effect in 2009 for agricultural and industrial crops.
		16,648 banana hills	 Cash compensation at fair market value based on City Ordinance No, 040-07 that took effect in 2009 for agricultural and industrial crops.

⁵ Crops are considered in the valuation of real property. As such, it is included in the Schedule of Fair Market Values for Davao City effective 2009.

Type of Loss	Application	Entitled Person	Compensation/Entitlements
		1,156 coconut trees	 Cash compensation at fair market value based on City Ordinance No, 040-07 that took effect in 2009 for agricultural and industrial crops. Additional P100 per tree to be cut shall be made to comply with the requirement of the Philippine Coconut Authority when applying for Permit to Cut, in accordance with Coconut Reservation Act of 1995.
		7,339 intercropped trees (Coconut, mango, pomelo, lanzones, durian, other perennials)	 For fruit-bearing trees and industrial crops: cash compensation at fair market value based on City Ordinance No, 040-07 which took effect in 2009 for agricultural and industrial crops; For coconut: additional P100 per tree to be cut shall be made to comply with the requirement of the Philippine Coconut Authority when applying for Permit to Cut, in accordance with Coconut Reservation Act of 1995. For perennial trees: cash compensation current market value as prescribed by the DENR
TUNNEL SECTION		Owners of surface land beneath tunnel section	 PAP will be entitled to: Disturbance fee as compensation based on fairy valuated price for surface land covered. (Note: under investigation with the Solicitor General of DPWH about concrete land acquisition and compensation framework)

8. Institutional Arrangements

8.1 **DPWH UPMO**

In accordance with DPWH D.O. 5 and 327 Series of 2003 and the LARRIPP, 3rd Ed. 2007, the Project Implementing Office (IO) shall have the overall responsibility for implementing the project. As such the DPWH Unified Project Management Office (UPMO) shall:

- Conduct of census of PAPs, socio-economic survey, land and structure value survey, canvassing of construction costs and listing of assets that will be affected by the project;
- (ii) Formulate the LAPRAP with technical assistance from the Environmental and Social Safeguards Division (ESSD), or through private consultants;
- (iii) Secure approval of LAPRAP and the corresponding budget for compensation, implementation, and monitoring activities, and
- (iv) Assist in monitoring and implementation of the LAPRAP

8.2 **DPWH ESSD**

As stipulated in D.O. 327 Series of 2003, the ESSD shall be responsible for the following:

- (i) Assist in the preparation and review of LAPRAPs;
- (ii) Assist in facilitating consultation meetings and information dissemination to PAPs and other relevant stakeholders throughout the LAPRAP Process;
- (iii) Provide training on LAPRAP;
- (iv) Assist the DEOs and CRICs in the validation of PAPs and entitlements; and
- (v) Track and monitor the implementation of the LAPRAP, in accordance with the LAPRAP Monitoring and Tracking Manual

Some of the tasks, particularly those that are not under the mandate of DPWH remain in gray areas. Some of these include: (i) acquisition of land for relocation sites; (ii) cutting and transport of coconut trees, and (iii) community organizing among affected, and host communities in preparation for integration (i.e., if renters of land opt to be relocated).

8.3 DPWH Region XI

The DPWH Region XI will oversee the concerned DEO's implementation of the RAP and has the following functions:

- (i) Through the Regional EIA Office, assist in the implementation and monitoring of the LAPRAP; and
- (ii) Facilitate the grievance process of the CRIC through the Legal Officer

8.4 **DPWH District Offices**

The concerned DEOs will serve as the major implementor of the RAP with the following functions:

- Assist the Implementing Office in the conduct of census of PAPs, socioeconomic survey, land and structure value survey, canvassing of construction costs and listing of assets that will be affected by the project;
- (ii) Organize the City RAP Implementing Committee (CRIC) for the implementation of the LAPRAP and conduct of grievance process, in case there are complaints;
- (iii) Implement the LAPRAP, including disbursement of compensation to PAPs, in coordination with the Implementing Office, the Regional Office, and the CRIC; and
- (iv) Submit to the Regional Office, Implementing Office, and the ESSD progress reports on implementation, including disbursements for compensation.

8.5 The CRIC

The City Resettlement Implementation Committee (CRIC) shall be composed of representatives from the Regional Office and District Engineering Office, the City/Municipality LGUs, affected barangays, and PAFs/PAPs. No NCIP or ICC/IP representatives are included in the RIC as no recognized ancestral land will be affected by the project alignment. The establishment of the RIC shall be made through the signing of MOU between DPWH and the concerned LGU. The function of the RIC includes:

 Assist the project consultants and DPWH staff engaged in RAP preparation activities in (a) validating the list of PAFs; (b) validating the assets of the PAFs that will be affected by the project; (c) assist DPWH in arranging for a suitable relocation facility for the displaced PAFs, and (d) participate in monitoring the RAP implementation;

- (ii) Assist the DPWH staff engaged in the RAP preparation in the public information campaign, public participation and consultation meetings;
- (iii) Receive complaints and grievances from PAFs and other stakeholders and refer the matter to the appropriate authorities;
- (iv) Maintain a record of all public meetings, complaints and actions taken to address complaints and grievances; and
- (v) In coordination with concerned government authorities, assist in the enforcement of laws/ordinances regarding encroachment into the project site or ROW.

The RAP implementation structure is illustrated in **Figure 8-1**.

8.6 The LIAC

To streamline acquisition of needed R-O-W and at the same time be compliant with international policies on involuntary resettlement together with the DPWH's own resettlement policy, roles, responsibilities, and efforts of key players and major stakeholders must be well coordinated. In order to achieve this, it is strongly recommended that, a **Local Inter-Agency Committee** (**LIAC**), which will be based in Davao City be organized.

The **LIAC** will help ensure that a common direction is being followed to achieve the goals of the RAP. Provided in **Table 8-1** is a list of said key players and major stakeholders and their corresponding responsibilities.

Table 8-1 Key Pla	yers and Major Sta	akeholders for RAI	P Implementation
Key Players	Key Person	Position in LIAC	Envisaged Role
DPWH UPMO	UPMO Director	Chairperson	Provide direction with regards to implementation of the Davao City Bypass Construction Project (DCBCP)
DPWH ESSD	ESSD Chief	Member	Provide direction with regards to implementation of the RAP for DCBCP
DPWH IROW	IROW Director	Member	Provide direction with regards to DPWH R-O-W acquisition procedures in relation to RAP implementation
PHILCOA	As deemed appropriate by Agency	Resource Person	Provide guidance regarding technical and other aspects of coconut plantations, particularly when it comes to cutting of trees and transport of coconut lumber
Department of Agriculture (Bureau of Plant Industry)	As deemed appropriate by Agency	Resource Person	Provide guidance regarding technical, economic, and other aspects of banana plantations and other crops classified as agricultural and industrial
Davao City City Housing Board or equivalent Office	As deemed appropriate by LGU	Member	Provide information and guidance regarding access to socialized housing projects of the City
Major Stakeholder	S	•	-
LGU of Davao City	City Mayor, City Agriculturist, Livelihood Officer	Members	Represent the PAPs of Davao City
LGU of Panabo City	City Mayor, City Planning and Development Coordinator	Members	Represent the PAP of Panabo City



Figure 8-1 Implementation Structure of RAP for the Davao City Bypass Construction Project

9. Grievance Redress

If there will be grievances arising from any aspect of the Project, these will be handled through negotiations following the succeeding procedures:

In accordance with the LAPRAP Tracking Manual of DPWH, a Grievance Handling Committee shall be formed within the City Resettlement Implementing Committee (CRIC-GHC) to facilitate the resolution of the PAPs' grievances. The CRIC's Chairperson shall head this Committee. Each representative from concerned Barangay government shall be his Co-Chairperson(s). The GHC shall consist of the following:

- (i) Legal Officer from the Legal Service (DPWH Central)
- (ii) IROW Engineer
- (iii) IROW Agent
- (iv) Land Management Section Chief/Representative (DENR Regional/Provincial Office)
- (v) City/Municipal Assessor
- (vi) Community Environment and Natural Resources Officer (CENRO)
- (vii) Preparer of Updated and Final RAP (from UPMO or their Consultant)
- (viii) Representatives of PAPs
- (ix) Representatives of NGOs

This procedure is initiated once the letters from PAFs, expressing their grievances are received by the CRIC-GHC. The deadline for submission of letters of grievances shall be set 15 days after the date of public disclosure". AS cited in Item 3 of the Grievance Procedure, *"Request each participant for their preferred schedule. Emphasize the importance of the set time frame for addressing the PAPs' grievances. Request for four (4) preferred schedules for the 30-day duration period. For representatives from the Regional Offices, two (2) schedules would be sufficient."* (As per LAPRAP Monitoring and Tracking Manual on Chapter 2.4 Grievance Procedure).

A Grievance Action Form (GAF), as prescribed in the said LAPRAP Tracking Manual shall be used during the detailed design stage to cover the various aspects of property acquisition based on validation of the RP. The GAF shall, at the very least, contain the following:

(i) Basic information on PAPs (Name, Address, Contact Number)

- (ii) Date of last disclosure meeting;
- (iii) Category of grievance filed (Legal, Technical/Engineering, Social, and Financial)
- (iv) Type of action taken (Resolved at the CRIC level, or referred to higher authorities.

Respective barangay captains, as co-chairperson of the GHC shall be the first recipient of the GAF. All GAFs shall be consolidated by the CRIC chairperson and presented to the CRIC for deliberation and appropriate action, on a weekly basis. Unresolved grievances at the CRIC level shall be elevated to the respective District Engineering Offices for resolution of complaints. Recommendations of the District Engineer shall be elevated to the Regional ESSD for approval and final action. If there are still unresolved grievances, a case shall be filed in the proper courts.

PAPs shall be exempted from all administrative and legal fees incurred in pursuant to the grievance redress procedures.

10. Implementation Schedule

Implementation of RAP Activities is presented in **Figure 10-1**. Please note that timing of the first disclosure shall take place upon completion of the Parcellary Survey. During updating of the RAP actual measurements of structures in the field must be undertaken to have more accurate basis for compensation. In addition it is also during updating of the RAP when target relocation sites are inspected and assessed in terms of acceptability and potentials for sustainable livelihood (i.e., if the affected renters of private land would opt to be resettled).

Figure 10-1 RAP Impleme	entati	on Sc	hedu	le															
		20	16			20	17			20)18			20	19		2	2021	1
Activities	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q
First Disclosure																	> >		
Parcellary Survey																	> > >		
Updating of RAP																	> > >		
Formation of the CRIC/MRIC																	> > > >		
Disclosure of Updated RAP to APs																	> > >		
Notification of APs																	> >		
Compensation																	> >		
Provision of Replacement Land (OPTIONAL)																	> > >		
Relocation to Replacement Land (OPTIONAL)																	>		
Income Restoration																	>		
Civil Works																	>		
Monitoring & Evaluation																	>		
Internal Monitoring																	> >		
External Monitoring and Evaluation																	>		

11. Costs and Budgets

RROW acquisition and other incidental costs related to RAP Implementation is shown in **Table 11-1** below. It is important to note that these figures need to be updated during updating of the RAP during the Detailed Engineering Stage.

Table 11-1 RAP Implementation	Table 11-1 RAP Implementation Budget						
Activity	Cost Items	Amount (Php)					
A. RROW Acquisition	Land	1,781,376,766					
	Structures and Improvements	16,528,662					
	Trees and Crops	4,987,350					
	Financial Assistance for Tenants	2,702,532					
	Inconvenience Allowance for Structure Owners on own land	230,000					
	Rehabilitation Assistance for PAPs engaging in new income activity	525,000					
Total		1,806,350,400					
B. Contingency	+ 10% Contingency	180,635,040					
	+ 5% Managerial Cost	90,317,520					
GRAND TOTAL		2,077,302,960					

ph 11/23/15

12. Monitoring and Evaluation

In accordance with the DPWH D.O. 5 and the LARRIP, PPP Service and ESSD, in collaboration with the concerned LGUs shall be responsible for conducting the monitoring and evaluation of RAP implementation. Tasks include the following:

- Regular supervision and monitoring of RAP implementation in coordination with the City Resettlement Implementation Committee (CRIC) of Davao City and Panabo City. Findings are documented and filed for future reference;
- (ii) Assessment whether the valuation of assets lost or damaged, provision of compensation and other entitlements, have been carried out in accordance with the RAP;
- (iii) Evaluating whether the RAP was implemented as designed and planned;
- (iv) Recording of all grievances, their resolution and whether all valid complaints are promptly addressed;
- (v) Assessing whether the RAP objectives have been met, particularly with regards to enhancement of living standards;
- (vi) Establishing whether the compensation and entitlements were appropriate to meet the objectives, and whether these objectives were appropriate to PAP conditions;
- (vii) Verifying and assessing the effectiveness of the IEC and disclosure meetings with PAPs;
- (viii) Verifying that the delivery of compensation and entitlements have been carried out in accordance with procedures communicated with the PAPs during consultations.

Provided in **Appendix K** are samples of monitoring forms that can be used after RAP implementation. Please note that these were obtained from DPWH's LAPRAP Tracking Manual.

Though there are no designated indigenous and ethnic groups in the project area, situation of minority group(s) such as Islamic group shall be monitored and adequate assistance and coordination shall be given if necessary, in order to avoid the project would serve as a trigger to conflict of interest.