Programmatic Environmental Assessment

for the

Bicol Core Permanent Shelter and

Community Revitalization Assistance Project

and

Disaster Preparedness and Emergency Assistance in Bicol Project

In the

Municipalities of Camalig and Guinobatan

Province of Albay, Philippines

Prepared by:

Save the Children®

IOM International Organization for Migration

Completion Date 10 September 2007

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I. INTRODUCTION

A. Background

In the Philippines, Albay and its nearby provinces are undergoing the cumulative dismal effects of a recent spate of natural disasters within a period of five months last year: high volcanic activity and one typhoon after the other --- all of which have caused vast population displacement. The population of the affected areas were still in the process of early recovery and return to "normalcy" in their social and economic lives when super Typhoon Durian[1] hit in November 2006. Typhoon Durian registered the highest rainfall level in the Philippines since 1967 with a record of 466 mm of rainfall in Albay throughout a period of 12 hours. The combination of the heavy rain fall from Typhoon Durian, other recent typhoons, and volcanic activity has undoubtedly exacerbated Albay's disastrous situation.

Typhoon Durian wrought havoc to more than 2 million people (458,632 families) in the Bicol region. The Philippine Government is continuing its efforts towards permanent relocation by having identified 11 permanent relocation sites, and is committing to the construction 4,100 permanent core shelters. Despite these efforts, there still remains a significant need for permanent shelter construction.

B. Purpose

USAID/Philippines' typhoon reconstruction activities include International Organization for Migration's (IOM) *Bicol Core Permanent Shelter and Community Revitalization Assistance Project* and Save the Children's (SC) *Disaster Preparedness and Emergency Assistance in Bicol*.

According to the Initial Environmental Examination[2] (IEE) (*See Annex 1 for approved IEE*), IOM's project specific to the construction of core permanent shelters in the municipalities of Guinobatan and Camalig, Albay Province, fall under a positive threshold decision[3] for activities. This means that the proposed actions of the project may have a significant effect on the environment and an environmental assessment will need to be conducted. Towards this end, a Programmatic Environmental Assessment (PEA) study was conducted by a joint

[1] Typhoon Durian is locally named Typhoon Reming by the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA).
[2] The Bureau Environmental Officer(BEO)-approved Environmental Threshold Decision(ETD) & Initial Environmental Examination (IEE) was approved on August 7, 2007 as Asia Near East (ANE) 07-129
[3] A threshold decision is a formal USAID decision that determines, based on the approved Initial Environmental Examination (IEE), whether a proposed project action will significantly affect the environment. All of which are necessary to fulfill the requirements under the USAID Title 22, Code of Federal Regulations, Part 216 Agency Environmental Procedures.

IOM-SC-USAID team from 24 August 2007 through 6 September 2007. Through this assessment, it was concluded that the project will have significant but controllable impacts on the environment.

The PEA study was carried out in accordance with the requirements of the Scoping Statement (*See Annex 2 for approved Scoping Statement*), which indicated the main areas of focus for the study. It is important to emphasize that the PEA study for this project is only required for a specific component, namely: the construction of a multi-purpose community center and 350 core shelter units in Mauraro, Guinobatan and the construction of a multi-purpose community center and 350 core shelter units in Tagaytay, Camalig.

The study methodology relied mainly on a broad analytical approach, based on the list of issues that were identified in the Scoping Statement. This included (but not limited to) the following: (a) analysis of data provided by the local governments of Guinobatan and Camalig; (b) ocular inspections of relevant relocation sites; (c) discussions with key respondents from the local government; (d) public consultations held for the beneficiaries and community members of the Guinobatan and Camalig relocation sites; and (e) the joint IOM-SC-USAID team's professional knowledge and experience. The Scoping Statement did not identify potential environmental impacts of the project activities that required more detailed investigation.

C. PEA Study (Joint IOM-SC-USAID) Team

The PEA Study (Joint IOM-SC-USAID) Team was composed of 12 members:

International Organization for Migration (IOM)

1. **Ida Mae FERNANDEZ - Projects Officer**
   - Provided oversight, management and input throughout the process of the Environmental Assessment and the creation of the PEA Document
2. **Rex ALAMBAN - Operations Officer**
   - Provided oversight, management and input throughout the process of the Environmental Assessment and the creation of the PEA Document
3. **Rizaldy FAJARDO - Project Engineer**
   - Provided oversight, and input with respect to the construction component of the PEA
4. **Derrick PIMENTEL - Land Working Group Head**
   - Provided input regarding government processes
   - Responsible for liaising with government representatives
   - Gathered of important documentation for the PEA

5. **Joy CERVAS - Community Development Working Group Head**

- Provided input regarding the sociological components of the PEA
- Responsible for liaising with beneficiaries and residents of host communities and facilitated both Public Consultations in Guinobatan and Camalig
- Facilitated the Public Consultations in Guinobatan and Camalig

6. **William SABATER - Water/Sanitation Expert**

- Provided expertise for Water and Sanitation, Environment and Construction Components of the PEA
- Provided insights regarding Philippine Government policies and procedures regarding site development and construction
- Assisted in drafting the PEA document

7. **Geoffrey SA-ONG - Environmental Expert**

- Provided expertise for the environment element of the PEA
- Provided insight regarding Philippine Government policies and procedures regarding site development and construction
- Assisted in gathering the needed documentation from relevant government agencies
- Assisted in drafting the PEA document

8. **Joanna DABAO - Coordination Assistant**

- Assisted in drafting and organizing the PEA document

Save the Children (SC)

9. **Nancy Florida OBIAS - Livelihood/Food Security and Pesticide Consultant**

- Provided all information pertaining to SC's activities
- Prepared the Solid Waste Management Plan of Non-Food Items

United States Agency for International Development (USAID)

10. **Ma. Theresa ABANILLA - Cognizant Technical Officer (CTO) USAID/Philippines**

- Provided guidance throughout the entire PEA process

11. **Mary Joy JOCHICO - Deputy Mission Environmental Officer USAID/Philippines**

- Provided guidance throughout the entire PEA process

12. **Barney POPKIN - Environmental Protection Specialist USAID/ANE Bureau**

- Provided guidance throughout the entire PEA process.

IOM PROJECT STATEMENT

Driven by the impetus of supporting community revitalization processes towards the re-establishment of sustainable socio-economic recovery among affected populations in Albay and Camarines Sur, IOM seeks to contribute to existing efforts of the Philippine Government, and other relevant organizations, in providing adequate permanent housing to internally displaced persons (IDPs) in the Bicol Region.

IOM registers its humanitarian intent and institutional capacity to carryout the following: (a) to contribute to the Philippines Government's sustainable resettlement program; (b) to construct and distribute at least 900 permanent core shelters, with water and sanitation facilities; (c) to construct at least 8 multi-purpose community centers; and (d) to promote jobs among the affected population in the area of construction.

This PEA Study will focus on activities implemented in the identified relocation sites of: (1) Mauraro, Guinobatan; and (2) Tagaytay, Camalig. Specifically, these activities involve:

- Executing land development activities to augment existing efforts of the Philippine Government;
- Construction of a multi-purpose community center and 350 core permanent shelter units in the Mauraro, Guinobatan relocation site;
- Construction of a multi-purpose community center and 350 core permanent shelter units in the Tagaytay, Camalig relocation site;
- Employ roughly 90 person-days per core shelter (multiplied by 700 units);
- Facilitate the establishment of inter-organizational shelter groups of construction intentions and actions towards orderly shelter construction activities;
- Collaborate with partner NGOs and other interested technical entities to ensure the provision of basic social and community services for the new shelter populations and dwellings; and
- Hand-over to Local Government Unit-community organizations of the project sites for management and maintenance, post-project.

Timeframe - 12 months

Project Budget – USD 3,500,000.00

SC PROJECT DESCRIPT

Project Goal: To rebuild the lives and promote the well being of children and their families affected by Typhoon Durian in Camarines Sur and Albay.

To meet the project goal, the project will implement three components:

1. Non-Food Items Component - To improve the ability of affected families to regain their basic human dignity through the provision of basic non-food items. The non-food items to be distributed are water storage pails and jug, mosquito net, mat, blanket, cooking set, cooking stove, cooking fuel and emergency light. The beneficiaries are 8,000 families or 40,000 individuals.

2. Food Security/Livelihood Component - To support the rehabilitation and diversification of livelihood of affected families and fisher folks and ensure food security at the household level. The project will provide farm inputs such as seeds, fertilizers, pesticides and farming technology training to 15 small rice, corn and vegetables farmers, fishing nets and paddled boats to 15 fishing folks and small animals such as chicken and goat to 15 women headed families.

The short-term livelihood assistance such as those proposed by the project may not be sustainable for the Camalig and Guinobatan relocation sites. Thus, the project will design more responsive interventions in consultation with the beneficiaries themselves.

3. Disaster Preparedness and Risk Reduction Component - To increase the awareness and participation of LGUs, Public Elementary Schools, children and communities in disaster risk reduction through capacity building interventions along disaster preparedness and risk reduction.

The beneficiaries of the project will give high priority to those families who are also housing beneficiaries of IOM so that the support services are more comprehensive and the families are better able to recover from the disaster and move forward with their lives.

Timeframe - 24 months

Project Budget - USD1,500,000.00

II. BASELINE CONDITIONS

Mauraro, GUINOBATAN

Geographic Location, Slope, Land Area and Land Use

The identified relocation site in Barangay[4] Mauraro, Guinobatan, in the province of Albay is situated within geographic coordinates (through hand held GPS reading at roadside) $13^0$09'34.5" North Latitude and $123^0$35'16.2" East Longitude (**Figure 1.**). The identified area is located immediately adjacent and southwest to the Built-up area of Barangay Mauraro (*Geographic Code (G-Code):* 050504030), Municipality of Guinobatan (*G-Code:* 050504000), Province of Albay (G-Code: 050500000), and approximately 5.5 kilometers from the town proper.

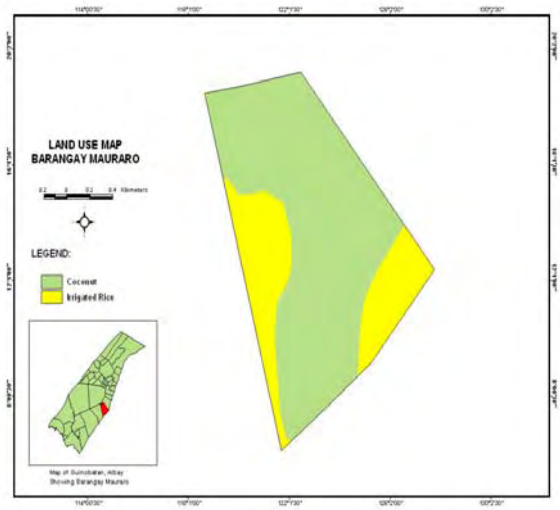
Figure 1.

Figure 1a. Transport Mode, Province of Albay

The poblacion area lies along the Maharlika National Road system that is connected to the City of Ligao northwards and the towns of Camalig and Daraga in the south. The nearest airport is in Legazpi City, estimated to be 28 kilometers SE from the site. Guinobatan is a railway town connected by the Philippine National Railway to Metro Manila and Legazpi City (**Figure1a.**).

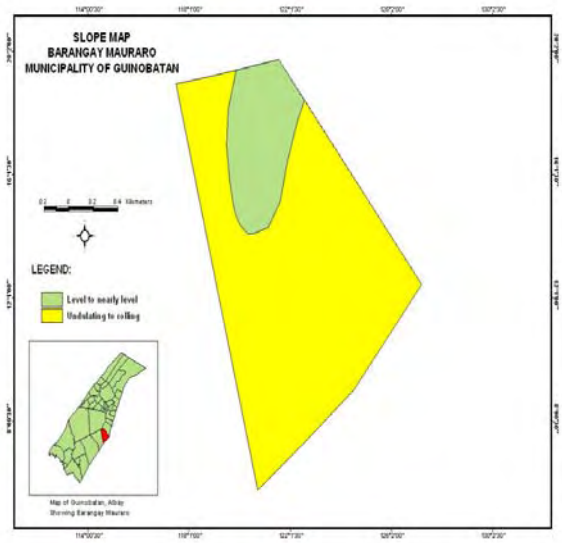
[4] Barangay: smallest local government unit in the Philippines

Figure2. Land Use Map of Barangay Mauraro, Guinobatan



(**Figures 2, 2a and 2b *See Annex 16 for an enlarged illustration of figures 2 and 2b*).**

Figure 2b. Slope Map of Mauraro, Guinobatan



The area is currently being developed by the National Housing Authority (NHA). Activities include streambank stabilization through grouted riprap; construction of roads; construction of utilities; site clearing and the like.

The site is within seven hectares of primarily agricultural area, with vegetation consisting of a mix of cogon grass (*Imperata cylindrica*), coconut (*Cocos nucifera*), and yemane (*Gmelina arborea*) trees. A flat terrain with slope gradients from 0% - 2% is cultivated for corn.

Figure2a. Vegetation prior to development of the site

There are *no* existing *forest reserves and wildlife sanctuaries* in the immediate project vicinities with Mayon Volcano Natural Park as the nearest protected area (PA) estimated to be more than 10 km northeast of the area. In addition, Mt. Masaraga Watershed Forest Reserve is around 20 kilometers northwest from Mauraro.

Figure 3. On-going Site Development Activities of the National Housing Authority, Mauraro, Guinobatan

Geology

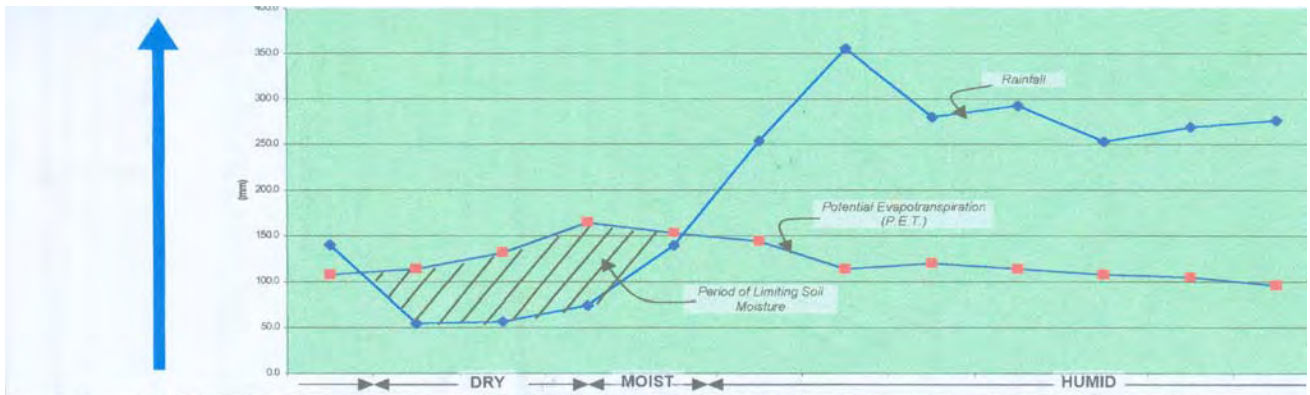
The Department of Environment and Natural Resources – Mines and Geosciences Bureau (DENR-MGB) Region 5 conducted geo-hazard assessments towards the identification of relocation sites for permanent housing for the victims of the past natural calamities including Mauraro relocation site (*See Annex 3*). However, it is important to note that the finalized geo-hazard assessment for the specific site has not yet been released by the DENR-MGB. As of this writing, the initial draft of the assessment indicates that the site earmarked for the IOM-SC-USAID project is suitable for relocation in the absence of significant forms of geologic hazards observed, except for effects of ground shaking during earthquakes, minor flooding[5] in specific areas and the presence of ash fall from the Mayon volcano eruptions.

Climate and Weather

The Municipality of Guinobatan belongs to Type IV climate along with the areas encompassing the central part of the province with rainfall more or less evenly distributed throughout the year, except during the occurrences of tropical cyclones in the vicinity that can cause rainfall abnormalities.

The locality experiences low precipitation during the months of April through May with an increase in the months of June through September. The peak months for precipitation (**Figure 4.** ***See Annex 16 for an enlarged illustration***) are November and December. This aligns with the seasonal *Climate Outlook* of Albay presented by PAGASA, Legazpi City Station as of June 15, 2007 (**Table 1**).

Figure 4. Monthly Precipitation of the Project Vicinities.



MONTH		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL:	Average (mm)	140.5	55.0	57.0	74.5	140.0	254.5	355.5	280.5	292.5	253.5	269.5	276.5
	Minimum (mm)	36.6	14.7	12.0	20.9	40.8	76.7	93.4	64.6	59.6	64.6	86.0	57.3
	Maximum (mm)	294.5	155.0	116.8	181.1	208.0	438.8	563.4	531.5	394.2	469.3	450.2	492.5
COMPUTED P.E.T. (mm/day)		108	114	132	165	153	144	114	120	114	108	105	96
AVE. NO. OF RAINY DAYS		14	10	9	9	12	16	19	19	20	21	22	23
TEMPERATURE (deg C)		25.2	25.5	26.8	27.0	27.6	28.0	27.0	27.2	27.1	26.5	26.3	25.6
MEAN SUNSHINE (hr/day)		5.7	6.5	6.2	8.6	7.5	6.8	4.3	4.6	4.2	4.3	5.3	5.4
RELATIVE HUMIDITY (%)		84	83	82	82	82	83	84	84	85	85	85	86
PREVAILING WIND:													
	SPEED (m/sec)	16	19	14	13	10	11	6	6	10	11	13	12
	DIRECTION	NE	NE	NE	NE	SE	SE	SE	SE	SE	SE	SE	SE

Sources: PCA-Agricultural Research Branch, and Bicol University College of Agriculture and Forestry Weather Sub-stations, Guinobatan

NOTE: A very exceptional case was the record of 466 mm of rainfall experienced by Albay for a straight 12 hours on November 30, 2006 (Typhoon Durian). It was comparably nearly equal to the maximum rainfall of the months of November.

[5] The issue of flooding will be addressed in the mitigation table in section VII of this document.

Table1. Seasonal Climatic Outlook of the Province of Albay (as of June 15, 2007). PAGASA Legazpi City Weather Station.

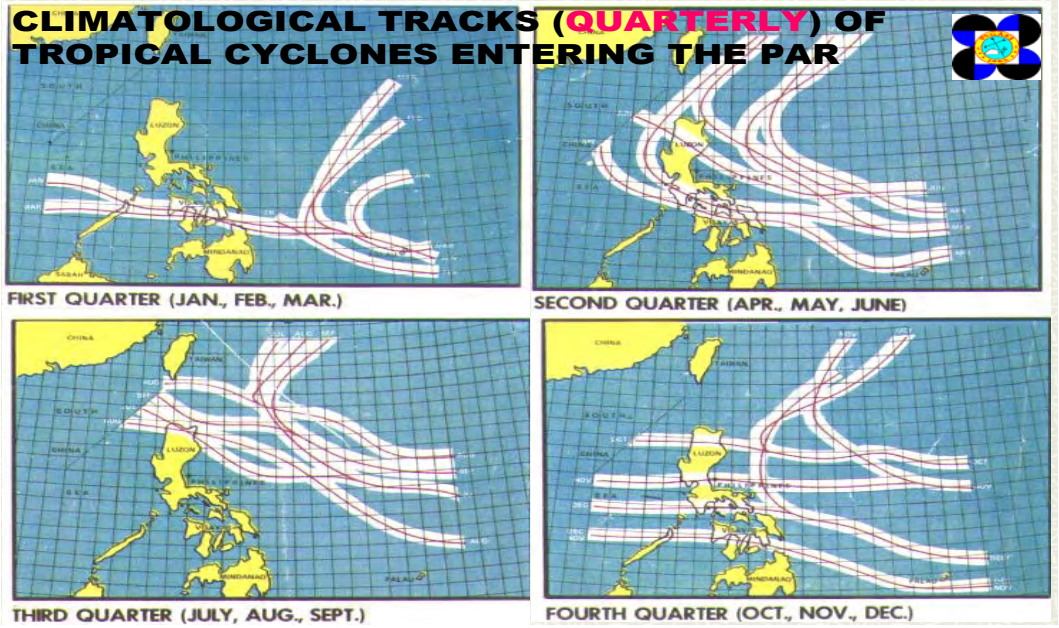
A. 2nd Quarter: Months of April, May and June	B. 3rd Quarter: July to September
• Transition period of wind direction from Northeast (NE) to Southwest (SW). • Onset of "Habagat[6]" starts and rainy season to follow • Thunderstorms are expected which may produce incidences of excessive rains causing flood and land slides • Weather systems Inter-tropical Convergent Zones (ITCZ), Easterlies, Monsoon Trough, SW Monsoon, Ridge of HP System • Passage of 2 or 3 Tropical Cyclones (TC) • The occurrence of one in May will likely trigger the onset of rains • Expected to follow the Normal track • Near normal rainfall at 161.0, 170.50, 259.50 mm for the months of April, May and June	• Peak of SW Monsoon "Habagat" season • TC activity at its maximum • Thunderstorms, heavy rains, and strong wind are the likely scenarios • ITCZ over most of the Philippines during July reaches its Northernmost position in August • 8 to 10 TC are expected to develop/enter in the PAR w/ possible tracks located over Northern Luzon. • NPHP system is also expected to affect the country during September-when weakening of SW monsoon is expected to start • Near normal rainfall at 279.0, 236.1, 261.6 mm for the months of July, August and September
C. 4th Qtr. October- December	
• Gradual shift from SW "Habagat" to NE "Amihan" Continue until October followed by the recession of SW monsoon rains • Covers the 1st half of NE monsoon season • Weather systems Tail-end of CF, ITCZ	• 5 to 6 TC are expected to develop/enter the PAR • Tracks of TC – Central Luzon with secondary tracks over Northern Mindanao and Visayas in east to west direction • Near normal rainfall at 358.8, 486.3, 562.5 mm for the months of October, through December

Typhoons usually occur within the months of July through November with the highest frequency of occurrence from August through October. The average monthly wind velocity is about 12 meters per

[6] Weather in the Philippines is generally divided into two seasonal weather patterns known locally as the Amihan and Habagat seasons. *Amihan* means *northeast wind*, and *Habagat* means *west or southwest wind; south-west monsoon*. The Amihan season is characterized by moderate temperatures, little or no rainfall, and a prevailing wind from the east. The Habagat season is characterized by hot and humid weather, frequent heavy rainfall, and a prevailing wind from the west.

second with prevailing wind direction toward northeast from January through May, and southwest winds occur from June to December (**Figure 4a**). The winds of Typhoon Durian last November 2006 was exceptional at more than 270 kilometers per hour (kph).

Figure 4a



Demography and Socio-Economic Indicators

Population

The last official census conducted by the National Statistics Office (NSO) was in year 2000, showing Barangay Mauraro to have a recorded population of 3,517 or 4.95% of the total municipal populace.

Educational Facilities

Barangay Mauraro has one elementary school with a recorded student population of 750. The municipality of Guinobatan has six secondary schools and four tertiary schools.

Health

There exists one Barangay Health Station (BHS) in Mauraro, one Main Health Center at the town proper, one private hospital and three private clinics. The nearest Government Hospital is Josefina Belmonte-Duran Memorial District Hospital located in Ligao City.

Water

Water supply and recharge is not a potent problem in Barangay Mauraro, being part of the headwater area of the Manlato-Donsol-Jovellar Watershed draining out to Ticao Pass west of the province. Most residents depend on Level I water service connections (shallow wells and deep wells) as their main source of water supply. The relocation site is drained on the eastern periphery by a creek that is tapped for irrigation and domestic use (Figure **8).**

Figure 8. Creek situated at the eastern periphery of the Mauraro Resettlement Site, Guinobatan

Power

The Albay Electric Cooperative is the main institution serving the electricity needs of the province. The resettlement area, and the entire barangay, has service connections for residential, institutional, commercial and other uses.

Solid Waste Management

The barangays of Guinobatan are served by the Municipal Solid Waste Facility located in Barangay Siete, seven kilometers from the town proper and about half a kilometer from the relocation site. The LGU of Guinobatan has plans to improve solid waste management practices as part of their local governance concerns and as mandated by Republic Act 9003, otherwise known as the *Ecological and Solid Waste Management Act of 2000*, specifically Article 6, Section 373 of the Act pertinent to municipal waste disposal. Additionally, the Department of Interior and Local Government (DILG) issued Memorandum Circular (MC) No. 2003-58 addressing all Provincial Governors, City/Municipal Mayors, Punong Barangays, DILG Regional Directors and others concerned to work out Social Acceptability Endorsements on March 26, 2003.
As required, the Provincial Governor of Albay issued MC No. 2003-16 to all City and Municipal Mayors to comply with the provisions of RA 9003. Unfortunately, the LGUs are often burdened by the high cost of establishing Sanitary Landfill Facilities (SLF) thus resulting in the use of open dumpsites in which case apply for Guinobatan and Camalig. Realizing the need to address this issue further, MC No. 037, was issued on June 22, 2005 *(Annex 4 for Memorandum Circular No. 037)* and sent out to all City and Municipal Mayors, instructing the LGUs of the establishment or reconstruction of the Municipal/City and Barangay Solid Waste Management (SWM) Boards. The circular encourages the creation of Local Technical Working Groups (TWG) towards the development of the SWM Plans and pursuance of clustered SLF construction (as an option) to lessen costs. DENR Administrative Order Numbers 09 and 10, dated September 14, 2006 shall guide the LGUs on their: (a) closure and rehabilitation of Open Dumpsites and Closed Dump Facilities; and (b) Categorized Final Disposal Facilities (*Annex 5 for DENR Administrative Order Nos. 09 and 10*).

Communication

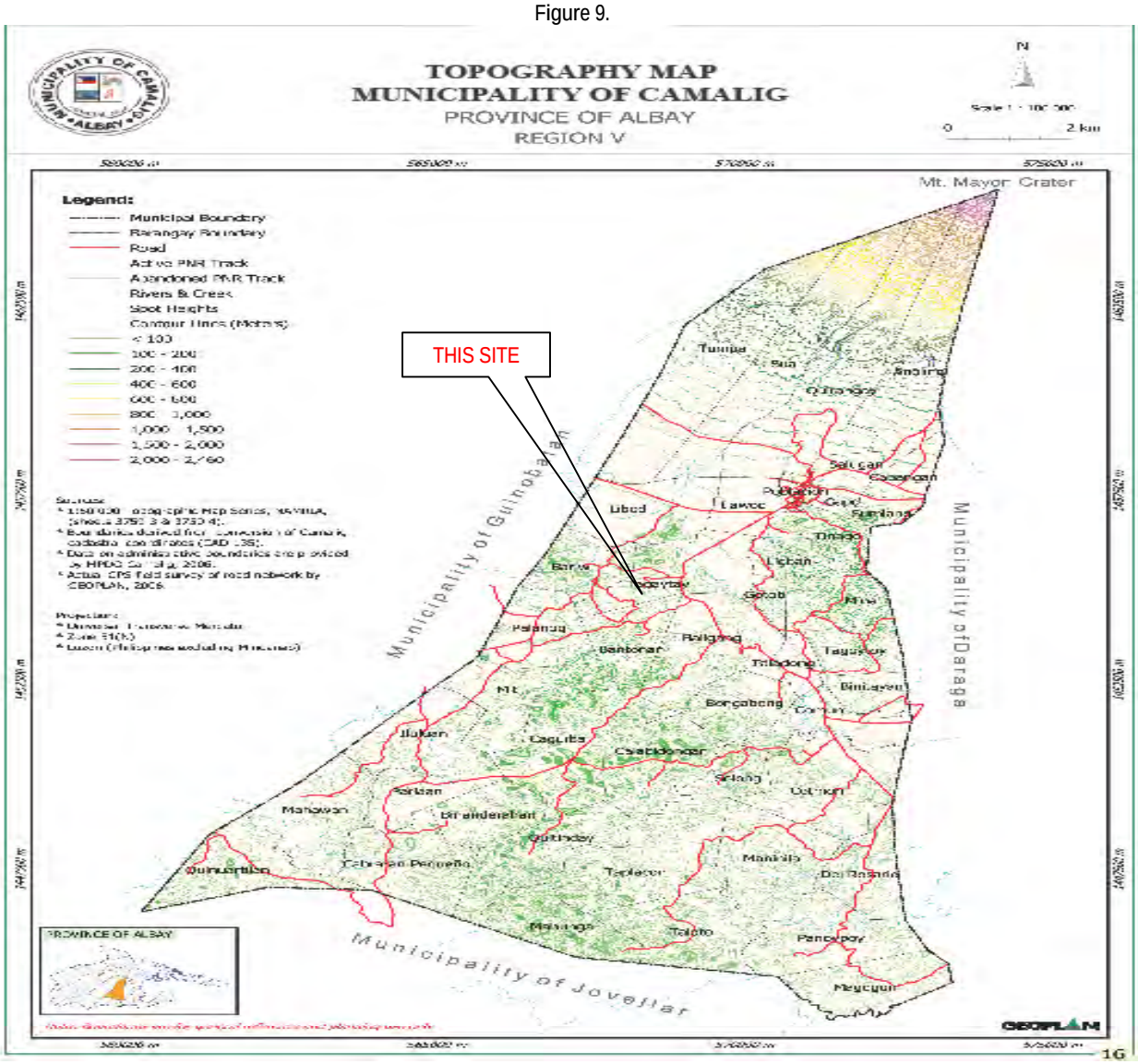
The relocation area is outside the service area for landlines of local telephone companies. However, the sites are within the scope of various cell sites thus allowing communication through the use of mobile phones. The Municipal Government maintains postal services serving both urban and rural areas.

Tagaytay, CAMALIG

Geographic Location, Topography, Land Area and Land Use

The project area is situated within geographic coordinates 13^{0}09'38.1" North Latitude and 123^{0}37'40.8" East Longitude. It lies south west of the existing FVR-FNM Resettlement site that is centered by coordinates N 13009'38.5" and E 123037'49.5" with an approximate elevation of 110 meters above sea level (**Figure 9.** ***See Annex 16 for an enlarged illustration***) on the plateau-like terrain west of Mayon Volcano. The slope is nearly flat to gently rolling with gradients ranging from 2% - 3 %.

Figure 9.



A fourteen hectare site, classified as Alienable and Disposable (A & D), was acquired by the Local Government Unit (LGU) for the relocation of victims from past disaster occurrences. These are lands

Figure 10. Land use of the Project Area, Tagaytay, Camalig.

predominantly filled with coconut trees (**Figure 10**) with some scattered fruit trees. Portions of the area have been cultivated for seasonal vegetable production and other cash crops.

There are no forest reserves and wildlife sanctuaries in the immediate project vicinities. The nearest protected area (PA) is Mayon Volcano Natural Park which is also posing hazard to the communities northeast from the resettlement site.

The area is currently being developed by NHA, whose target date for completion of land development is December 2007 (**Figures 11 and 11a**). The developmental activities introduced, include: (a) construction of a spillway to provide access and connectivity to the existing access road of the FVR-FNM Resettlement Site; and (b) construction of roads, construction of utilities, and the like.

Figure 11. Construction of Spillway, Tagaytay, Camalig

Figure 11a. Construction of Roads at the Project Area

Geology and Soils

The geo-hazard assessment report of DENR-MGB in December 2006 (*See Annex 6*) states that Tagaytay Relocation Area is suitable for relocation, given the following: (a) there are no active faults within the resettlement site and vicinities with remote possibility of liquefaction; (b) the site is situated far from the threat of volcanic debris flow paths or lahars; (c) not prone to floods; and (d) the site is within a plateau- like terrain that is not prone to landslides. Important findings relative to settlement issues are presented below.

Geology

- Sand and sandy clay layers with intercalated volcanic tephra and pebble sized red and black scoria was encountered down to 2.65 meters below ground surface (mbgs);
- Silt sized grains observable in the clay towards the bottom;
- The bottom layer (not drilled) is believed to consist of sedimentary sequence of the Sandstone – Siltstone Albay Formation Group; and

- No calcareous facies were observed at the site, however several hills around the site consist of white to cream colored cliff forming limestone.

The area is viewed from the Geologic Map of a portion of the Legazpi Quadrangle to fall under the Albay Group Formation of Limestone A (*page 3 of Annex 6*)**.**

Soil

The site is largely underlain by brown sandy soil intercalated with thin layers of pebble sized fragments of red to black scoria, approximately 1.6 meters thick. The soil beneath this layer consists of dark brown to reddish sandy clay grading to silty clay towards bottom at 2.65 meters below ground surface (mbgs), and with minor intercalations of layers of pebble sized red to black scoria, i.e., the sandy to silty clay observed moist and slightly plastic in character.

Climate and Weather

Similar to the adjacent Municipality of Guinobatan, Camalig belongs to Type IV climate along with the areas encompassing the central part of the province with rainfall more or less evenly distributed throughout the year, except during the occurrences of tropical cyclones in the vicinity, which can cause rainfall abnormalities.

The locality experiences low precipitation during the months of April and May. Precipitation increases in the months of June through September, peak months (**Figure 4**) being November and December. It likewise aligns with the seasonal *Climate Outlook* of Albay presented by PAGASA, Legazpi City Station as of June 15, 2007 (**Table 1**).

The locality usually experiences typhoons within the months of July through November with the highest frequency of occurrence from August through October. The average monthly wind velocity is about 12 meters per second with prevailing wind directions toward northeast from January through May. Southwest winds occur from June to December (**Figure 4a**). The winds of Typhoon Durian last November 2006 was exceptional at more than 270 kilometers per hour (kph).

Demography and Socio-Economic Indicators

Population

The last official census conducted by the National Statistics Office (NSO) was in 2000. However, population statistics were provided by the Municipal Planning and Development Office (MPDO) indicating the population growth of Barangay Tagaytay as a component of the Municipality of Camalig for years 2003 and 2005 (**Table 2**). The community represents 4.02% of the total populace of Camalig from year 2000 to 2003 and very slightly rose to 4.03% in year 2005.

Table 2. Population of the Core Shelter Housing Project Host Barangay (Tagaytay)

Year	Population				Population Density Person/Hectare
	Total	By Gender		Household	
		Male	Female		
2000 2,341				465	5.94
2003 2,413		1,288	1,242	550	6.12
2005 2,457					6.24

NOTE: The computed Annual Average Growth Rate (AAGR) equals 0.30. Source: (1) Geographic Atlas; and (2) Comprehensive Land Use Plan (CLUP), Camalig, Albay

Household Income Sources

The Infres Rapid Appraisal Program (IRAP) survey conducted by the LGU in 2005, illustrates that 40 households (HH) or 7.27% of Tagaytay residents are engaged in farming, 30 HH (5.45%) are employed, and 25 (4.54%) in handicraft making. The remaining majorities either are involved in the labor industry but often are seasonal and small scale buy and sell practices.

Educational Facilities

Tagaytay has one (1) Elementary School with a Teacher to Student ratio of 1:31 and classroom to student ratio of 1:22. The nearest secondary school is at Barangay Bariw, approximately two (2) kilometers from the resettlement area. Tertiary schools are located in the nearby municipality of Guinobatan, and the cities of Legazpi and Ligao that are readily accessible and not exceeding 15 kilometers distances.

Health

There is no existing Barangay Health Station (BHS) in Tagaytay, Camalig, however the relocation site is only 2 kilometers away from the BHS of Barangay Bariw, 3-kilometers distance from the Municipal Health Unit (MHU) at the town proper and 14 kilometers from the Bicol Regional Training and Teaching Hospital (BRTTH) in Legazpi City.

Among the basic concerns being addressed by the MHU is the incidence of malnutrition with recorded 300 children considered as malnourished (translating to 6.55% of the municipal prevalence of malnutrition).

Water

Water supply and recharge is not a major problem in Barangay Tagaytay, being part of the lower (elevation) headwater areas of the Bicol River Basin draining to Lake Bato and moving to San Miguel Bay of the Pacific area. However, it is important to note that access to safe potable water is a different issue: the rural host community is reported to have a two Level II water service connections and 27 Level I water system serving 388 households. In addition to this, there are two deep wells serving 44 households and the remaining households gain access to potable water through natural springs and shallow wells.

Power

The Albay Electric Cooperative is the main institution serving the electricity needs of the province. The existing resettlement area, as well as the entire barangay, has service connections for residential, institutional, commercial and other uses.

Solid Waste Management

The urban barangays of Camalig are served by the Municipal Solid Waste Facility located at Barangay Sua at the footslopes of the Mayon volcano. The rural areas practice backyard pit and disposal in open lots and often resort to burning; composition of the waste is primarily made up of agricultural and kitchen refuses. Moreover, piling of non-biodegradable materials is also commonly observed.

Like other component municipalities of the province, the LGU of Camalig has plans to improve its SWM by looking for alternative dumpsites. They are mandated to comply with the provisions of Republic Act 9003, guided by applicable policies from the national government. Facing financial difficulties, they are guided by DENR Administrative Order Numbers 9 and 10, similar to Guinobatan as presented earlier. The least to be done with regards to SWM is be guided or compliance to the Governor's MC No. 037, was issued on June 22, 2005 *(Annex 4 for Memorandum Circular No. 037)* sent out to all City and Municipal Mayors, instructing the LGUs of the establishment or reconstruction of the Municipal/City and Barangay Solid Waste Management (SWM) Boards. The circular encourages the creation of Local Technical Working Groups (TWG) towards the development of the SWM Plans and pursuance of clustered SLF construction (as an option) to lessen costs.

Communication

The relocation area is outside the service area for landlines of local telephone companies. However, the sites are within the scope of various cell sites thus allowing communication through the use of mobile phones. The Municipal Government maintains postal services serving both urban and rural areas.

III. SITING

A. Site Selection

The Provincial Government through the Provincial Planning and Development Office (PPDO), the provincial coordinating unit Albay Mabuhay, and the respective LGUs are responsible for site identification and selection. The process is conducted in close coordination MGB-DENR and PHIVOLCS-DOST: agencies responsible for conducting geo-hazard assessments of the sites towards certification ensuring the areas are suitable for relocation. The NHA is responsible for site development at the pre-construction phase.

Mauraro, GUINOBATAN

The NHA purchased nine (9) hectares of land in Mauraro, Guinobatan towards the construction of permanent shelters for IDPs[7]. The DENR-MGB and DOST-PHIVOLCS cleared the area as being resilient to landslides, flooding and outside the danger zone for volcanic eruptions, thus making it a suitable site for relocation. (*See Annex 3 for MGB assessment of Guinobatan*)

Approximately 3.6 hectares of this site is earmarked for construction of 350 core permanent shelter units by IOM, with USAID funding support (*See Annex 7 for site plans of the Guinobatan relocation site).*

It is also of importance to highlight that public health is among the major concerns considered in the site selection process. The nearest potential water source for the relocation site is approximately 3 kilometers away northeast of the area. The distance of the water source to a dumpsite is around 3.5 kilometers on the opposite direction (southwest) which is in compliance with the parameters set by the Sanitation Code of the Philippines[8]. There is no tributary interconnection and it is not covered by the recharge area of the water source.

Tagaytay, CAMALIG

The Provincial Government of Albay identified and purchased 14 hectares of land in Tagaytay, Camalig towards the construction of permanent shelters for IDPs[9]. The DENR-MGB and PHIVOLCS–DOS cleared the area as being resilient to landslides, flooding and outside the danger zone for volcanic eruptions, thus making it a suitable site for relocation. (*See Annex 6 for MGB assessment of Camalig*)

[7] Original owner of the property developed the land prior to it being purchases by the NHA
[8] As provided by the Sanitation Code of the Philippines, The minimum distance of residential areas from a solid waste dump site is 200 m.
[9] NHA was responsible for land development of this site

Approximately 3.6 hectares of this site is earmarked for the IOM's construction of 350 core permanent shelter units (See Annex 8 for site plans of the Camalig relocation site).

A. Beneficiaries

The beneficiaries of this project will be IDP families currently living in transit/evacuation centers or with host families in host communities. The Municipal Government in coordination with the Department of Social Welfare and Development (DSWD) is responsible for the beneficiary selection process. Priority will be given to the most vulnerable residents of the barangays selected for relocation (*See Annex 9 for eligibility requirements of each municipality*).

IV. CONSTRUCTION

The Core Shelter Unit[10]

350 core permanent shelter units will be built on each of the relocation sites of Camalig and Guinobatan. Construction will be based on a single-family detached design[11], with a total floor area of approximately 21.4 square meters. This floor area can be further divided to provide space for: a living area, dining area, and two bedrooms. The unit will also include a bathroom and a utility area for a kitchen. Internal service connections to electrical and water utilities will also be provided. However, the interior partitioning for the units will not be provided by this project, thus, beneficiaries will be responsible for the provision of interior partitions for the individual units.

The design of the unit allows for lateral and not vertical expansion. This matter will be strongly emphasized during social preparation activities for the project. The design does not limit additions or expansions for canopies, porches, and so forth through the beneficiary's resources.

[10] Additional illustrations regarding the construction of core permanent shelter units can be found in Annex 14
[11] Design used for the single-detached core permanent shelter unit is endorsed by the Provincial Disaster Coordinating Council (PDCC)

Structural and Masonry Works[12]

The proposed core permanent shelter units will be typhoon resistant, built mainly of reinforced concrete. The structural members (columns, footings, and beams), roof, walls and floors will be made of cast-in-place concrete materials.

All works herein shall be done in accordance with the "NATIONAL STRUCTURAL CODE OF THE PHILIPPINES, Volume 1, 3rd Edition and the "ACI BUILDING CODE (ACI 318-latest edition)" and the National Building Code, l988 Edition.

Electrical Works

Six lighting fixtures and four convenience outlets will be installed for each unit.

Plumbing Works

A pour flush type of water closet will be provided in each unit complete with soil pipe connections to the Plastic Purifying Septic Tank System (PPST).

Manpower Requirement

It is the commitment of IOM to provide livelihood assistance to IDPs and host communities. Except for the project management staff, eighty percent (80%) of the workforce will come from the beneficiaries and twenty percent (20%) from the residents of the host barangays of Tagaytay and Mauraro.

Type of Equipment to be used

Equipment	Usage
Delivery Truck	Used for hauling of construction supplies and materials.
Service Vehicle	Used for the transport of manpower and light construction materials.
Concrete Mixer	Used for all concreting works.
Plate Compactor	Used for soil compaction and ground stability.
Water Pump	Used drawing water for concrete mixing, soil sprinkling and other purposes.
Generator Set	Used for standby power in case of power failure.
Various hand tools	Used for excavations, concreting, pipe laying, installations, and backfilling activities.

[12] See Annex 14 for detailed construction related illustrations

Construction Activities and Schedule Per Core Shelter Unit

Each permanent core shelter is estimated to be completed within thirty-seven calendar days. The construction schedule is presented below.

Construction Activities	Duration					
	Wk1	Wk2	Wk3	Wk4 Wk5 Wk		
Mobilization						
Site Preparation / Earthworks						
Rebars / Steel Reinforcement						
Concrete Works						
Masonry Works						
Carpentry Works						
Plumbing Works						
Electrical Works						
Painting Works						
Demobilization						

V. POST-CONSTRUCTION

Upon being selected as a recipient of a core permanent shelter unit, beneficiaries will be informed of their usufruct rights. A technical working group including representatives from LGUs, NGOs, line agencies and other stakeholders are in the process of creating Memorandum of Agreements (MOAs) between the respective local government units and the beneficiaries[13] (*see Annex 10 for documentation from LGUs pertaining to the creation of the Technical Working Group*). Upon completion of construction, IOM will turn over the units to the beneficiaries with the understanding that maintenance of each unit will be the responsibility of each beneficiary family.

It is important to note that the typhoon reconstruction projects shall be implemented with specific primordial consideration given to post-project community sustainability through capacity-building and within the context of self-reliance on the personal/family and collective/community (even inter-community) levels, through action-oriented activities.

SC shall implement disaster preparedness and risk reduction campaigns towards educating IDPs about identifying elements in the environment that may pose a threat to the community in the event of a natural disaster. SC shall conduct orientations and workshops on geological and meteorological conditions of the region for all project partners and beneficiaries to enable them to understand the given devastating interaction of natural and environmental forces and the risks of these to people. It is also of importance to note that as a result of observations made by the assessment team during the public consultation, environmental awareness-raising into its community development activities shall be incorporated.

VI. ENVIRONMENTAL IMPACTS

A. Scoping meeting and Results

A joint IOM-SC-USAID assessment team facilitated two separate public consultations in the Municipalities of Guinobatan and Camalig, respectively, on 28 August 2007. A total of 100 participants attended the consultation in Guinobatan (*See Annex 11 for the sign in sheets for the Guinobatan consultation*) and 60 participants attended the consultation in Camalig (*see Annex 12 for the sign in sheets of the Camalig consultation)*. Participants of the consultations included representatives from relevant local government units, representatives from national and provincial government agencies, academe, non-governmental organizations, members of the communities in which the core shelters and community centers will be built and of course members of the beneficiary communities. *(See Annex 13 for respective consultation agendas*). It was clear that the consultations served as a venue for the participants to raise their concerns freely.

[13] Components of the MOA will include: descriptions of beneficiaries usufruct rights, commitments from local government units for the provision of security and basic utilities such as: water, electricity and waste management,

B. Environmental Concerns

B.1 SUMMARY OF CONCERNS

From the consultations and additional discussions among the IOM-SC-USAID team the following issues were identified:

Issue	Identified Concern
From GUINOBATAN and CAMALIG	
Land Development	• development of roads • site development activities (The above mentioned concerns apply to the pre-construction phase of the project)
Septic Tank	• lifespan of septic tank • agency responsibility for addressing septic tank issues, post-project
Traffic	• over congestion of roads • increase of vehicular accidents
Workers	• safety of workers
Air	• generation of dust • degradation of air quality • generation of noise
Soil	• Top soil removal • sedimentation/siltation, soil erosion • deposition • flooding (The above concerns apply to the construction and post construction phases)
Water	• water pollution • generation of domestic effluents • flooding • sedimentation

Solid Waste	• generation of solid waste
	  ○ management of solid waste
	  ○ increase of health concerns related to improper solid waste management

Land Ownership	• understanding of the screening process for the allotment of shelter units • access to information regarding land titles and type of ownership in the new relocation sites
Water and Electricity	• details about the provision of water and electricity in the new relocation sites

Core Shelter Units	• concerns raised regarding the Sphere[14] and the National Socialized Housing Code minimum standards for living space in core shelter units
Livelihood	• opportunities for livelihood for beneficiaries in the new relocation sites
Natural Calamities and fire	• communities susceptibility to natural disasters
Contribution of Beneficiaries	• counterpart contribution expected of the beneficiaries
From CAMALIG	
Landslides	• susceptibility of occurrence
From GUINOBATAN	
Schools in Relocation Site	• Space allocation for the construction of a new school in the relocation site
Floor Area of Core Shelter Units	• 16 square meter-size, below the standard set by SPHERE and the National Socialized Housing Code

[14] Humanitarian Charter and Minimum Standards in disaster response

After discussions among the assessment team, and among the issues raised in the public consultations, the following are considered as not significant for the purposes of this PEA study:

Issue	Identified Concern	Non- Significance
From GUINOBATAN and CAMALIG		
Land Development	• development of roads • site development activities	Activities pertaining to site development, including road openings, road construction, and provision of public utilities such as power, water and drainage is not an integral part of the scope of this study. The National Housing Authority (NHA) and the Local Government Unit of Camalig are responsible for the implementation of such towards the management of its impact on the environment. The Shelter Committee of Camalig and the Technical Working Group of Guinobatan will be responsible for facilitating the creation of an MOU among the stakeholders.
Septic Tank	• lifespan of septic tank • agency responsibility for addressing septic tank issues, post-project	This project is only responsible for the provision of water-sealed toilets bowls and individualized septic tanks with primary treatment for each core shelter unit.[15] Maintenance will mainly be the responsibility of the beneficiary household with usual LGU support through the Municipal Sanitary Inspector's Office. Furthermore, the social preparation activities will include organizing camp management/community management committee with the support of the LGU.
Traffic	• over congestion of roads • increase of vehicular accidents	Traffic rules and regulations in the construction area shall be strictly implemented by the LGUs of Guinobatan and Camalig.
Water and Electricity		1. Water supply will be the responsibility of NHA and the LGU. Based on current discussions with the prospective beneficiary municipalities, the

[15] This project will be using the prefabricated septic tank designed endorsed by the NHA for use in all shelter reconstruction projects in the province of Albay.

	• details about the provision of water and electricity in the new relocation sites	municipal water district will provide water supply and connection to the houses since the individual beneficiary households are members of the water district cooperative before the typhoon, and have paid the connection fees to the cooperative. The household will pay for the consumption as in regular conditions. The shelters to be built will be pre-installed with plumbing and taps. Sustainability and maintenance are the main reasons for making the municipal water district through the LGU and the NHA responsible for the supply of water. This will be among the provisions to be signed between IOM and LGU/NHA prior to construction of the shelters. And to make the re-connection cost easier on the household, we will negotiate that the water district, collect the payment on installment basis for at least a year—to be included in the monthly water bill, e.g. payment for a 1,000 pesos reconnection cost will be divided into 12 months. Water testing in these areas covered by the water district will be incorporated into the regular testing schedule of the water district with PHO/DOH. 2. For the Tagaytay (CAMALIG) relocation site, where the distribution system of the municipal water district does not exist, IOM will negotiate for an extension of the water pipeline to service the relocation site. The 350-400 new households in the relocation site should be enough reason for the extension. However, where it is not possible although unlikely, deep well will have to be drilled to supply water to the households by the LGU. Water testing will have to be done through the PHO or DOH. The shelters will be built with pre-installed plumbing and taps. Relevant government agencies including the PHO or DOH and the Municipal Government of Camalig will be responsible for addressing this issue. An MOA between relevant stakeholders will be created with the facilitation of the Camalig Shelter Committee.
Contribution of Beneficiaries	• counterpart contribution and role expected of the beneficiaries	IOM ensures that 80% of the workforce to be employed for the core shelter construction will be coming from the beneficiary communities. Moreover, maintenance of each unit as well as management of community activities will be the responsibility of the beneficiaries and other community members in the relocation site.

Livelihood	• Opportunities for livelihood for beneficiaries in the new relocation sites	LGUs will be responsible for orienting beneficiaries regarding the parameters for livelihood practices in the relocation sites SC's activities will also directly address livelihood issues
From CAMALIG		
Landslides	• susceptibility of occurrence	MGB geo-hazard assessment cleared the relocation sites as fit for relocation and resilient to environmental issues such as landslides, flooding and volcanic eruptions.(See Annex 6 for MGB Assessment)
From GUINOBATAN		
Schools in Relocation Site (Mauraro Elementary School)	• Space allocation for the construction of a new school in the relocation site.	The Mayor of Guinobatan explained that this issue was already discussed with the Albay Governor and the decision reached was: (1) the existing school in the municipality will continue to be utilized and (2) additional land will be identified towards the construction of new school facilities for the municipality.
Floor Area of Core Shelter Units	• 16 square meter-size, below the standard set by SPHERE and the National Socialized Housing Code.	The kitchen and bathroom areas of the permanent shelters are outside of the 16 square meters allotted for living space; such that taking these 2 additional facilities into consideration, the area of each core shelter unit is approximately 21.4 square meters.[16]

[16] The minimum standards set both by SPHERE guidelines and the National Socialized Housing Code is 18 square meters.

B.2 SIGNIFICANT ENVIRONMENTAL IMPACT

The PEA team identified the following issues as significant to the Assessment:

Issue	Identified Concern	Significance
From GUINOBATAN and CAMALIG		
Workers	• safety of workers	As with all construction activities risks regarding the safety of construction workers are a considerable issue that needs to be addressed. Risks may include, but are not limited to: inhalation of dust, smoke and other air pollutants that may lead to respiratory related illnesses or physical harm as a result of human error or machine malfunctions.
Air	• generation of dust • degradation of air quality • generation of noise	***Dust generation and degradation of air quality*** There shall be degradation of the air quality due to the generation of dust and smoke brought about by human and construction activities. Air pollutants and dust can damage health in a number of ways. It could lead to various forms of respiratory diseases. Vehicle and equipment emit gases like sulfur dioxide, lead, nitrogen oxides, carbon monoxides, hydrocarbons and other contaminants that irritate the lungs and very susceptible to those suffering from bronchial asthma, chronic bronchitis and emphysema. ***Noise generation*** Noise shall assail the nearby residents during the construction activities; the chatter of power tools, the roar of transport vehicles, truck horns and noisy throbs of machinery shall irritate the residents of the host barangays in both relocation sites especially during their sleep. Exposure to high levels of sound can lead to physical and psychological problems ranging from irritability to migraine headache and stress. The intensity of sounds is measured in units called *decibels (db)*. For most people, the pain threshold is about 120 *db* (takeoff of a jet plane) and a level of 150 *db* can result to deafening ear

		damage. For construction employees working eight hours a day at sites, the maximum allowable noise level must not exceed 90 *db*.
Soil	• top soil removal • sedimentation/ • siltation, soil erosion • deposition • flooding	***Erosion from exposed cuts and landslides due to earthmoving and excavation activities.*** ***Sedimentation / siltation of drainage or waterways from unconfined stockpiles of soil and other materials.*** After the earthmoving and excavation activities, loose soil materials may flow together with storm run-off during a heavy downpour that can lead to the sedimentation/siltation of drainage canals and natural water ways and can cause constriction of flow and turbidity in waterways that may affect its downstream users.
Water	• water pollution • generation of domestic effluents • flooding • sedimentation	***Pollution of nearby water bodies due to improper disposal of construction wastes*** The potential hazards associated with improper disposal of construction wastes can cause physical and chemical dangers. Exposure to these hazards can result in injury to the downstream users of the water body. Apart from risks to the community, consideration must be given involving the impact of solid waste on the environment. Attention should be paid to the possible pollution of the water body. The leachate produced, while the waste undergoes decomposition, will greatly affect the quality of the water body. ***Flooding*** Flooding may occur from back up of runoff from siltation and sedimentation from soil erosion. Post-construction flooding may also occur from de-vegetation and replacement of natural surface by impermeable materials for roads, houses and other structures. ***Generation of domestic effluents*** The proposed core shelter units of the project will produce wastewater from

		the toilet, bathroom and shower, laundry and kitchen utilities. The wastewater generated is composed of different elements, some of which are harmful when discharged untreated, in large volumes or in high concentrations and cannot be processed naturally by the environment. ***The concentration of different polluting elements will have specific effects on the environment and on people.*** The accumulation of solid particles in water results in turbidity or murkiness of the water. Concentration of organic matter in water bodies causes depletion of oxygen, and ultimately, an inability to sustain aquatic life dependent on oxygen. Organic matter also releases foul odors resulting from gases produced during decomposition. Nutrients encourage the growth of algae and could lead to eutrophication or excess plant growth, which also reduces the dissolved oxygen in water. Gases in wastewater, such as hydrogen sulfide and ammonia, can be toxic. Another important effect of these elements is the increase of micro organisms that can cause disease.

Solid Waste	• generation of solid waste
	  ○ management of solid waste
	  ○ increase of health concerns related to improper solid waste management
		There are many potential hazards associated with improper solid waste management. This can include physical, chemical, and biological components; exposure to these hazards can result to disease or injury of the people handling it. It can also pose significant health threats to the general public.
		
		Apart from risks to the community, consideration must be given to the impact of solid waste on the environment. In particular, attention should be paid to the possibility of polluting air, water, and soil.
		
		The open burning of solid wastes, a practice common surrounding areas, will result in the release of poisonous gases into the atmosphere.
		
		Leachate is produced when waste undergoes decomposition, and when water percolates through solid waste undergoing decomposition, the contaminated

		liquid may affect water supply sources. The aesthetic qualities of the area are also affected if solid waste is not properly collected and disposed.
Natural calamities and fire	• communities susceptibility to natural disasters	The Philippines is located on the western rim of the Pacific Ocean characterized by an ocean-encircling belt of active volcanoes and earthquake generators or fault lines. Both municipalities of Camalig and Guinobatan are located around the area of Mayon Volcano, one of the country's most active volcanoes. PAGASA records show that the country regularly experiences natural disasters such as earthquakes and typhoons. On the average, the country experiences 19 typhoons annually and the Bicol Region is particularly susceptible to these disasters. In the last quarter of 2006, Albay was severely affected by a series of disasters, the most extensive of which was Typhoon Durian in November 30, 2006.

VII. ENVIRONMENTAL MITIGATION MEASURES

Construction Phase:

IOM will be responsible for implementing all mitigation measures under the Construction phase.

Post-Construction Phase (Post-Project):

IOM's project will end upon the completion of construction of core permanent shelter units and multi-purpose community centers. The implementation of mitigation measures in this phase will fall under the responsibility of concerned National and Local government units, beneficiaries and SC. However, it is important to note that IOM will augment these efforts through community development activities that will be facilitated prior to project completion.

Construction Phase	
Impact	Measure
Impact on Construction Workers	
safety of workers	• All hired laborers will undergo skills training where in basic first aid training will be provided. • A medical kit will be readily available on site and all workers will be informed of the most efficient routes to nearby medical facilities.
Impact on Air Quality	
generation of dust and degradation of air quality	• Regular watering of unpaved roads or exposed soils/ground. • Removal of soil /mud from tires of trucks and equipment before leaving the area. • Covering of hauling trucks with canvass or any equivalent materials. • Set-up temporary fence around the construction area.
generation of noise	All construction activities shall be conducted only during the daytime. Noise producing power tools, construction equipment, and transport vehicles shall be maintained in good operating conditions and proper equipment operating procedures shall be observed.

Impact on Soil	
top soil removal	Stockpiling of the top soil in a safe place and use as final grading material or final layer. As soon as possible, rip-rap or re -vegetate the area.
flooding	• If possible, conduct majority of construction activities during dry season. • Employ appropriate drainage control measures, including: temporary diversion canals, avoidance of leaving opened cuts exposed for long periods of time, and installation of barriers nets as well as soil and debris traps.
soil erosion	• If possible, conduct construction activities during dry season. • Employ appropriate drainage control measures, including: temporary diversion canals, avoidance of leaving opened cuts exposed for long periods of time, and installation of barriers nets as well as soil and debris traps.
sedimentation/siltation	• Set-up temporary silt trap/ponds to prevent siltation. • Proper stockpiling of spoils (on flat areas and away from drainage routes). • Spoils generated from civil works shall be disposed as filling materials.
Impact on Water Quality	
water pollution	• Set-up temporary disposal mechanism within the construction area and properly dispose the generated solid wastes. • Set up proper and adequate toilet facilities. • Strictly require the contractor and its workers to observe proper waste disposal and proper sanitation.
generation and management of solid waste	• Recycling of construction debris and using them as filling materials
Post - Construction Phase	
Impact	Measure
flooding	• NHA in collaboration with the LGUs will employ appropriate drainage control measures • LGUs ,including the Barangay units, will practice proper Solid Waste Management, avoiding disposing of waste in water ways • Beneficiaries will employ erosion control through landscaping and planting of

	vegetation.
generation of domestic effluents	• The Project shall employ the pre-fabricated Plastic Purifying Septic Tank (PPST)[17] as a method for its wastewater primary treatment. It is environment friendly, efficient, easy to maintain, and simple to install. The PPST consists of three main chambers; namely the digestive chamber, filter chamber and culturing chamber that will provide a combination of physical, biological, and chemical treatment of effluents prior to its disposal to the drainage system. • LGUs in collaboration with PHO through the rural health units will construct a secondary treatment facility. • Tapping of private contractors for the desludging of the PPST and proper disposal thereafter as the responsibility of the: (a) family beneficiaries, and/or; (b) organized homeowners or community association; and (c) with technical assistance from the local health units.
increase of water related illnesses	• Proper implementation of water and waste management processes will ensure that illnesses related to poor water and sanitation practices will be prevented. • Workshops on good water and sanitation practices will be incorporated into the community development activities for the beneficiaries.

[17] **The Plastic Purifying Septic Tank System (PPST)** is made from recycled polyethylene (PE) plastic, watertight, thick sturdy walls, and shall be installed with a minimum distance of 3.0 m. from the main shelter unit. It is provided with a manhole for purposes of cleaning, inspection, and repair. It is a device used to expedite the decomposition of the elements contained in raw sewage wastes. The raw sewage consists of wastewater from the toilet (black water), bathroom and shower, laundry and kitchen (gray water). It involves the separation of solids through sedimentation or settling. The settleable solids can be precipitated in the PPST in a very short time. In about 24 to 48 hour period of retention, it offers satisfactory results.

The solid organic materials, being denser than water, tend to settle to the bottom of the digestive chamber and are technically referred to as *sludge*. The lighter organic materials, being less dense than water, rise to the surface of the water and usually are referred to as *scum*.

The organic suspended materials in solution of the raw sewage offer a more difficult problem. They cannot be precipitated in the digestive chamber and must undergo further treatment by processes other than sedimentation. It is for this reason that the PPST is introduced with a filter chamber. This chamber is provided with gravel and charcoal acting as the filter medium for the suspended materials. (See Annex 15 for the Plastic Purifying Septic Tank detail).

From the Filter Chamber, the solution goes to the culturing chamber where the organic matter is broken down with the aid of micro-organisms.

The final effluent will not present a problem as discharged into the proposed resettlement area drainage system terminal.

Generation of Solid Waste	
generation and management of solid waste	*1. Implementation of an Ecological Solid Waste Management Program* The Local Government Unit of Camalig and Guinobatan shall be the primary responsible body for the implementation and enforcement of the Ecological Solid Waste Management Program (ESWMP). *2. Waste segregation at source.* Volume reduction at the source shall be the first priority of the ESWMP of LGUs. SC will conduct training programs among project beneficiaries towards the minimization of waste generated by the resettlement project. Project beneficiaries shall be trained on the sorting and segregation of biodegradable and non-biodegradable wastes. *(See Annex 15 for SC's Solid Waste Management Plan of Non-Food Items)* *3. Proper collection, transport and handling of Solid Waste* The proper collection, transport and handling of solid wastes shall be the responsibility of the respective LGUs. *4. Composting* Campaigns for individual household backyard composting will be undertaken by SC for project beneficiaries. *5. Materials Recovery and Recycling* Project beneficiaries shall be trained on materials recovery and recycling utilizing the "Multi – F" scheme such as Factory returnable; Feed materials; Fermentable; Fertilizer materials; Filling materials; Fine crafts; Food materials and Fuel. This will be undertaken by SC as a livelihood project (*See Annex 15 for supporting documentation).* All above mention activities will be facilitated or augmented by the IOM Community Development Working Group.
Increase of health concerns related to improper solid waste management	• Proper implementation of solid waste management processes will ensure that illnesses related to poor solid waste practices will be prevented. • Workshops on good solid waste management practices will be incorporated into the

	community development activities for the beneficiaries.
Impact of Natural Calamities and Fires	
Occurrence of natural calamities and fire	• Core shelter units design are typhoon and fire resistant, being made of concrete materials. The units shall be designed and built in accordance to the National Building Code standards and specifications. • Per Geo Hazard Report issued by the MGB, the proposed resettlement sites are suitable for the purpose being not prone to landslides; not prone to floods; located away from the permanent danger zone of the Mayon Volcano; and the absence of active faults in the area. *(see Annex 3 & 6 for supporting documentation)*. It is important to note that a section of the site experienced flooding during the occurrence of Typhoon Durian on November 30, 2006; this can be addressed by installing culverts, widening of the bridge, and regular cleaning and declogging activities of the waterways. In addition to the above mentioned mitigation measures, SC shall implement disaster preparedness and planning workshops and information campaigns towards educating IDPs about identifying elements in the environment that may pose a threat to the community in the event of a natural disaster.

It was the consensus of the assessment team that, as clearly manifested in the plenary discussions in both consultations, environmental issues may not readily and prominently figure into a post disaster community's mindset. This is not to say that beneficiaries are totally unaware of environmental issues. In order to enhance the awareness concerning environmental issues in the relevant communities, SC shall incorporate environmental awareness elements into the disaster preparedness and information campaign activities.

Presentation of Draft Programmatic Environmental Assessment to Stakeholders

On 6 September 2007, the IOM-SC-USAID Assessment team presented the above findings to relevant national and local government agencies *(See Annex 17 for sign in sheet)*. The meeting served as a venue for all participants to provide comments regarding the assessment teams findings. The event was successful in soliciting responses from various government agencies regarding issues relevant to the PEA, among other matters pertaining to the broader issues relevant to community rehabilitation in the province.

Through this meeting the assessment team was able to present its proposed mitigation measures, which will be assumed by IOM and SC throughout project implementation, to relevant government agencies. Discussions regarding the roles and responsibilities of various government agencies in the relocation and rehabilitation process also took place during the presentation. It was made clear that an Executive Order has been issued detailing the adoption of Albay Mabuhay as the current provincial administrations program towards economic modernization (See Annex 18 for Executive Order). Albay Mabuhay will serve as a coordinating and facilitating body for activities involving community development, rehabilitation and disaster preparedness.

Section 4 of the said Executive Order presents the key areas and components foci of rehabilitation improvements and establishment of support facilities and amenities. Section 5 defines the organization and composition of the coordinating body representing three major groups, to include: (1) Government Sector from the national, regional and provincial offices; (2) Cooperating agencies outside the government agencies; and (3) Beneficiaries such as communities, Local Government Units, Parishes and the like. Section 6 enumerates the membership of clusters whereby the "Shelter and Relocation Cluster" is composed of: 1) Provincial Social Welfare and Development Office (as Head); Member Organizations include 2) Provincial Planning and Development Office; 3) National Housing Authority; 4) Housing Land Use Regulatory Board; 4) Housing Urban Development Coordinating Council; 5) Department of Public Works and Highways; 6) International and Local NGOs; and 7) LGUs.

Through the course of discussions, Albay Mabuhay presented its intent to act as a coordinating body to assist in the facilitation of all activities relevant to community rehabilitation. While the assessment team fully acknowledges the local governments' efforts to formalize roles of various agencies and delegate responsibilities relevant to the rehabilitation process, the team also acknowledges the importance of creating MOUs between specific stakeholders that will provide further details that will help IOM and SC meet their project objectives[18].

[18] The creation of MOUs will be facilitated by the Technical Working Group of Guinobatan and the Shelter Working Group of Camalig.

VIII. REQUIREMENTS OF THE PHILLIPINE GOVERNMENT:

IOM, in coordination with NHA, and the LGUs of Guinobatan and Camalig, will comply with requirements set by the DENR relevant to this project.

IX. ACRONYMS

ACI - American Concrete Institute

BHS - Barangay Health Station

BRTTH - Bicol Regional Training and Teaching Hospital

CF - Cold Front

CLUP - Comprehensive Land Use Plan

CTO - Cognizant Technical Officer

DB - Decibels

DDR - Disarmament Demobilization and Reintegration

DENR - Department or Environment and Natural Resources

DILG - Department of Interior and Local Government

DOH - Department of Health

DOST - Department of Science and Technology

DSWD - Department of Social Welfare and Development

ECC - Environmental Compliance Certificate

EPC - Emergency Post Crisis

ESWMP - Ecological Solid Waste Management Program

EUR - Euros

FVR-FNM - Fidel V Ramos-Florencio N. Munoz

HH - House Holds

IDP – Internally Displaced People

IEE - Initial Environmental Examination

IOM – International Organization for Migration

IRAP- Infres Rapid Appraisal Program

ITCZ –Inter Tropical Convergence Zone

KPH - Kilometers per Hour

LGU – Local Government Unit

M - Meter

MBGS - Meters Below Ground Surface

MC - Memorandum Circular

MGB - Mines and Geo Sciences Bureau

MGU - Municipal Government Unit

MHU - Municipal Health Unit

MM - Millimeter

MOA -Memorandum of Agreement

MOU - Memorandum of Understanding

MPDO - Municipal Planning and Development Office

NE – Northeast

NGO- Non-Governmental Organization

NHA - National Housing Authority

NSO - National Statistics Office

PA - Protected Area

PAGASA - Philippine Atmospheric, Geophysical and Astronomical Services Administration

PAR - Philippine Area of Responsibility

PDZ - Permanent Danger Zone

PE - Polyethylene

PEA - Programmatic Environmental Assessment

PGA - Provincial Government of Albay

PHIVOLCS - Philippine Institute of Volcanology and Seismology

PHO - Provincial Health Office

PPDO - Provincial Planning and Development Office

PPST - Plastic Purifying Septic Tank System

SC - Save the Children

SLF - Sanitary Landfill Facilities

SW – Southwest

SWM – Solid Waste Management

TWG - Technical Working Groups

TC - Tropical Cyclones

USAID – United States Agency for International Development

USD - United States Dollar

WK - Week

X. DESCRIPTION OF ASSESSMENT TEAM

IOM International Organization for Migration
OIM Organisation Internationale pour les Migrations
OIM Organización Internacional para las Migraciones

1. Ida Mae FERNANDEZ - Projects Officer

Ida Mae has been with the International Organization for Migration (IOM) for eight (8) years with expertise in project development and management, information, education and communication and expertise in implementation tracking of IOM projects at a global level. She also has extensive experience in Emergency Post Crisis Projects in Banda Aceh, Indonesia and Bicol, Philippines.

Prior to joining IOM, she has had 18 years experience in development work, seven (7) years experience in research and analysis with University of the Philippines Institute of International Legal studies with focus on Law of the Sea, Women and Environment and two (2) years experience as project monitoring and evaluation officer for the Center for legislative development focus on women's roles in governance, reproductive rights and human rights approach to women and environment issues.

2. Rex ALAMBAN - Operations Officer

Rex as worked with the International Organization for Migration (IOM) for nine years focusing on programmes under the Emergency and Post-Crisis (EPC) division of the organization. He started in 1998 in Mindanao where IOM assisted in the demobilization and reintegration of former Moro National Liberation Front (MNLF) combatants. Subsequently assigned to the IOM Missions in Kosovo, Afghanistan, Iraq, Sri Lanka and Pakistan focusing on Disarmament, Demobilization and Reintegration (DDR) Programmes for ex-combatants; Emergency Relief, Camp Management, Returns and Reintegration Programmes for Internally Displaced Persons (IDPs) and other Forced Migrants; and the provision of Emergency and Transitional Shelters in disaster areas such as post-Tsunami in Sri Lanka and post-Earthquake in Pakistan. Before coming back to the Philippines for the Bicol Relief Operation, he has served as Coordinator of the Emergency Shelter Cluster in the humanitarian hub of Muzaffarabad, in the Pakistan Administered Kashmir.

3. Rizaldy FAJARDO - Project Engineer

PROFESSIONAL CIVIL ENGINEER WITH LICENSE NUMBER 31090.

Joined IOM in 2005 for a temporary housing project, was involved in the design and set up of the first unit of the pre-cast concrete bolted type structures, for the project; assisted in the set up of shelter organization, contractor evaluation, and training of local technical men for 2000 units of temporary housing.

2nd quarter of 2006 was transferred to work with the project manager of the American Red Cross permanent housing project to formulate implementation plans, organization, and quality control in the construction of 1917 unit houses built throughout Aceh, Indonesia.

Prior to joining IOM, Rizaldy has 24 years solid experience in construction, hands on experience in construction, 10 years in project management, housing and telecom civil works (tower, shelter and generator). With varied exposure in civil works, started as an ordinary engineer in steel fabrication, move on to handle subdivision development, housing construction, had been a builder and contractor for a while and decided to go on employment again as a consultant for GSIS main headquarters.

4. Derrick PIMENTEL - Land Working Group Head

Land Working Group Coordinator. Graduate of Bachelor of Laws in 2007, Xavier University and Medina College of Law, studies relevant laws on Environment and Land Use and Acquisition. Joined internship program of Balay Mindanao Foundation, Inc., that included experience in case studies and legal research on Environmental Impact of Mining Industry, Coastal Based Management in an island Municipality of Loreto, Surigao, Philippines.

5. Joy CERVAS - Community Development Working Group Head

Current Community Development Specialist for the International Organization for Migration (IOM) with extensive experience in Social Work and Community Development including experience liaising with beneficiaries, government agencies and other organizations.

6. William SABATER - Water/Sanitation Expert

A Civil Engineer and a Sanitary Engineer by profession. He finished his Civil Engineering course at the Bicol University, Legazpi City in 1980, and Sanitary Engineering course at the National University, Manila in 1982. He has a wide experience in building construction and other civil engineering works, water supply system design, wastewater treatment designs, and sewerage system design and environmental sanitation. His work experiences include: a) as

Supervising Sanitary Engineer, Department of Health, Center for Health Development – Bicol, b) as Water and Sanitation Consultant of Pampanga Disaster Response Network Inc., and Orient Integrated Consultants Inc., Total Consultancy Services Inc., and C. L. Almajose and Sons Consultancy Services, c) as Professor at the Bicol University College of Engineering.

7. Geoffrey SA-ONG - Environmental Expert

A resident of Legazpi City is a Licensed Forester and an accredited IEE Preparer. He completed the academic requirements leading to the Degree of Master of Science in Forestry, major in Pathology at the University of the Philippines at Los Banos. He is an Environment and Land Use Planning Specialist with 20 years experience in the field of: watershed management and forestry civil engineering works, silviculture and forest plantation management, as well as surveys, mapping and planning. His past work affiliations include: a) RP-Japan Training Center for Forest Conservation, b) DENR-Office of the Undersecretary for International Commitment and Local Government Affairs, c) Orient Integrated Development Consultants, Inc., d) Resources, Environment and Economics Center for Studies, Inc., f) various Local NGOs, and g) recently as a Consultant on Environment for the Provincial Government of Albay.

8. Joanna DABAO - Coordination Assistant

Current Coordination Assistant for the IOM Bicol Operations with experience in project development and coordination activities; graduated with a B.S. Psychology degree from Saint Mary's College of California with background in tutoring English as a Second Language and experience as a Business Application Coordinator for Kaiser Permanente Healthconnect.

Save the Children.

9. Nancy OBIAS

Currently working as consultant for SC Disaster Preparedness and Emergency Assistance Project; Nancy has 24 years of work experience in social development programs, 17 years of which were with international development organizations. Worked on program development, fund sourcing, implementation, monitoring, evaluation and reporting of various programs on child development and maternal health, education, livelihood and agricultural programs, habitat, emergency assistance, environment, community development, women and children's rights, HIV/AIDS, reproductive health and children disability.

10. Ma. Theresa "Boyet" ABANILLA:

Boyet is a Development Program Specialist at the Office of the Program Resources and Management, USAID/Philippines. She is the designated Cognizant Technical Officer (CTO) for the U.S. Government's $5 million typhoon reconstruction assistance for the Bicol Region. She has been with USAID for 20 years and also currently the Disaster Assistance Specialist coordinating USAID's disaster assistance to the Philippines. She has a degree in Bachelor of Science in Commerce Major in Economics and earned units in Master of Arts in Economics.

11. Mary Joy JOCHICO

Joy serves as the Deputy Mission Environmental Officer for USAID/Philippines. She assists the Mission Environmental Officer in ensuring compliance of USAID-funded activities with the agency's environmental regulations. She also serves as the team leader for the Urban Environmental Management Team under USAID/Philippines' Office of Energy and Environment. Joy has over 15 years experience in designing, implementing and evaluating projects on water supply and sanition, solid and hazardous waste management and air quality management. She has a master's degree in Public Administration from the University of the Philippines and Environmental Management from a joint program of Ateneo de Manila University and the University of San Francisco, USA.

12. Barney POPKIN

Barney has a BA Geology from New York University; MS Hydrology and PhD in Soil and Water Science (ABD) from the University of Arizona; and Business, Hazardous Materials, and Solid Waste Management Certificates from University of California, Berkeley. He has 40 years experience in environmental, water, waste waster, solid and hazardous waste, and construction management and environmental assessment and has completed 35 environmental assessments for federal, municipal, military, utility, mining and petroleum clients. He has also taught Environmental Assessment at U.S. Universities and Consultancies.

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
BUREAU FOR ASIA AND THE NEAR EAST
WASHINGTON, D.C. 20523

ENVIRONMENTAL THRESHOLD DECISION

File No: ANE 07-129 Philippines ETD Typhoon Reconstruction-Bicol

PROGRAM/ACTIVITY DATA:

Country Code: 497
Country or Region: Philippines
Activity Name: **Typhoon Reconstruction Activities in the Biocol Region**
Funding Begin: July 2007 **Funding End:** July 2009 **LOP Amount:** $5,000,000
Sub-Activity Amount:
CE/IEE Prepared by: Ma. Theresa M. Abanilla & Mary Joy A. Jochico **Date:** August 3, 2007
IEE Amendment (Y/N): N If "Yes," Number @ Date of Original IEE:

ENVIRONMENTAL ACTION RECOMMENDED: (Place X where applicable)

Categorical Exclusion:	☒	Deferral:	☐
Positive Determination:	☒	Negative Determination:	☒
With Conditions:	☒	Exemption:	☐

SUMMARY OF FINDINGS

USAID/Philippines's "**Typhoon Reconstruction Activities in the Biocol Region**" consists of: 1) Albay Core Shelter and Community Revitalization Assistance (ACSCRA); and 2) Disaster Preparedness and Emergency Assistance (DPEA). International Organization for Migration (IOM) will implement ACSRA to contribute to Government of the Republic Philippines's and other organization's efforts in providing adequate permanent housing to internally displaced persons in Albay province affected by fall 2006 typhoons. ACSRA will: a) conduct site development to prepare land for construction of permanent housing; b) construct up to 1,000 permanent core shelters with water supply and sanitation; c) construct up to eight multi-purpose community centers; and d) disseminate disaster preparedness information. Save the Children Federation, Inc. (SCF) will implement DPEA to rebuild the lives and promote well being of children and their families affected by the fall 2006 typhoons in Albay and Camarines Sur provinces. DPEA will: a) provide non-food commodities (mosquito nets, mats, blankets, stoves, cooking fuel, hygiene kits, etc.); b) help rehabilitate and diversity livelihoods for subsistence farmers for corn, rice, vegetables, livestock, and fishing through agricultural and fishing training and provisions (fertilizers, pesticides, seeds, farming tools, paddleboats, fishing nets); and c) increase awareness and participation of local governments, public elementary schools, children, and communities in disaster risk reduction. Technical assistance through awareness and information campaigns and dissemination, and some training activities without adverse environmental impacts, will not have direct or indirect adverse impacts on the natural or physical environment. Vocational agricultural and fishing training (especially those involving agricultural chemicals (fertilizers, pesticides), provision of non-food commodities which generate wastes, and activities which procure or use agricultural chemicals may have adverse environmental impacts. Preparation and construction activities for core shelters, multi-purpose halls, and water and sanitation facilities will likely have significant adverse environmental impacts.

APPROVAL OF ENVIRONMENTAL ACTIONS:

USAID/Philippines's **Typhoon Reconstruction Activities in the Biocol Region** which are entirely technical assistance as awareness and information campaigns and dissemination, and those training activities which lead to no adverse environmental impacts, qualify for **Categorical Exclusion** per 22 CFR 216.2 (c)(2)(i) as technical assistance and training activities, (iii) as analyses, studies, academic or research workshops, and (v) as meeting activities, and document and information transfers. However, as the Mission requests, prior to implementing any activities under its **Typhoon Reconstruction Activities in the Biocol Region** program, the CTO will develop an environmental screening checklist (such as submitted Initial Environmental Examination (IEE)), instruct implementing partners on its use, and assure its implementation through auditing and update as needed.

Vocational agricultural and fishing training (especially involving fertilizers or pesticides), provision of non-food commodities which generate wastes, and activities which procure or use agricultural chemicals quality, and limited, small-scale construction (less than 100 units) on already developed land quality for a **Negative Determination with Conditions** per 22 CFR 216.3 (a)(2)(iii), where the **Conditions** include:

1. **Vocational agricultural and fishing training.** Prior to training, the implementing partner shall develop, and upon USAID/Philippines Mission Environmental Officer (MEO) approval implement, vocational training programs which teach and promote environmentally friendly and safe, and hazardous materials-minimizing and waste-minimizing strategies, protection of surface water and groundwater from fertilizers and pesticides, including integrated pest management, proper procurement and use of pesticides through a ANE Bureau Environmental Officer (BEO)-approved Pesticide Evaluation Report and Safe Use Action Plan (**PERSUAP**).
2. **Waste from non-food commodities.** The implementing partner shall develop and implement MEO-approved waste management systems to reduce impacts of waste generated from distribution and use of non-food commodities.
3. **Pesticide-related issues.** Prior to procurement or use of natural or artificial pesticides, the USAID/Philippines Cognizant Technical Officer (CTO) shall submit a PERSUAP to the ANE BEO for review and approval, instruct implementing partners on its use once approved by the BEO, and assure its implementation through auditing, and revise and update as needed.
4. **All Typhoon Reconstruction Activities in the Biocol Region, including limited and small-scale construction activities.** Prior to limited, small-scale construction (less than 100 units) on already developed land, the CTO will develop an environmental screening checklist (such as Annex A in the submitted Initial Environmental Examination (IEE)), instruct implementing partners on its use, and assure its implementation through auditing and update as needed.
5. **Provision of drinking water.** Provided drinking water shall be safe for drinking.

Because of its potential cumulative adverse environmental impact, extensive small-scale construction (greater than 100 units) and any construction on undeveloped, agricultural, forest, or raw land quality for a **Positive Determination** per 22 CFR 216.3 (a)(2)(iii), and requires a BEO-approved Scoping Statement, followed by a BEO-approved Programmatic Environmental Assessment, each with stakeholder and appropriate municipal, regional, and federal agency inputs, prior to land acquisition, clearing, and construction.

Bureau Environmental Officer _____ John O. Wilson

Date: 8/7/07

Approved: ☒

Disapproved: ☐

File No: ANE 07-129 Philippines ETD Typhoon Reconstruction-Bicol

DISTRIBUTION: Mission Environmental Officer; IEE File

ANE 07-129 Philippines IEE Typhoon Reconstruction-Bicol

Initial Environmental Examination

Program/Activity Data
Title of Activity/Activity Number: Typhoon Reconstruction Activities in the Bicol Region
Country/Region: Philippines/ANE
Funding Period: July 2007 - July 2009
LOP Amount: $5,000,000
IEE Prepared by: Ma. Theresa M. Abanilla/Mary Joy A. Jochico **Date**: August 3, 2007
IEE Amendment (Y/N): N **Date of Original IEE**: N/A
Environmental Media and/or Human Health Potentially Impacted:

Environmental Action Recommended:
Categorical Exclusion____X____Negative Determination with Conditions____X____
Positive Determination____X____Deferral_____

Background

During late 2006, the Bicol Region of the Philippines was hit by four major typhoons in a span of 11 weeks over the period September 25 to December 7. Two of the typhoons were classified as Category 4 or "super typhoons," with maximum sustained winds of over 200 km/h. These typhoons triggered landslides, flash floods, mudslides, widespread flooding and together with the associated high winds, caused widespread and significant death and injury, and damaged homes, communications, transportation infrastructure, and destroyed or disrupted livelihood activities. The typhoons destroyed or damaged well over 200,000 houses in the Bicol's provinces of Albay, Camarines Sur, and Catanduanes. At present, eight months after the last of the devastating typhoons, over 2,300 families remained displaced from their homes and livelihoods, and still reside in 11 schools, evacuation centers, and transit sites or live in temporary host communities.

In the aftermath of the typhoons, the Government of the Republic of the Philippines (GRP) declared a national calamity, also requesting the United Nations (UN) to facilitate and coordinate the assistance from donors and aid agencies to the Bicol Region and to monitor and report fund utilization and disbursements. Despite the outpouring of support, available resources remain inadequate for implementing recovery and rehabilitation plans in Bicol Region. To cover the shortfall, on July 5, 2007, the GRP and UN launched a consolidated appeal to raise $16.2 million to support sustained and collaborative assistance programs in the areas of livelihood recovery, shelter, and the reestablishment of clean and safe communities. These are the most pressing recovery needs for restoring physical security, food security, incomes, and dignity to typhoon victims.

The USG authorized relief support under the FY 2007 supplemental PL 110-28, which included $5 million for typhoon reconstruction assistance for the Bicol Region of the Philippines. These funds will support a number of integrated interventions to help families in the provinces of Albay and Camarines Sur by restoring/providing permanent core shelter, community infrastructure, and water and sanitation facilities; providing basic household supplies; supporting the rehabilitation and diversification of livelihood; and building capacity for disaster risk reduction.

USAID/Philippines plans to partner with the International Organization for Migration (IOM) and Save the Children Federation, Inc. (SCF) in implementing these activities.

Activity Description

The $5 million typhoon reconstruction assistance includes two major activities:

- Albay Core Shelter and Community Revitalization Assistance Project and
- Disaster Preparedness and Emergency Assistance/Bicol Project.

The Albay Core Shelter and Community Revitalization Assistance Project (to be implemented by IOM) aims to complement ongoing efforts of the GRP and other organizations in providing adequate permanent housing to displacedfamilies in Albay Province. In coordination with GRP agencies such as the National Housing Authority (NHA), the Department of Social Welfare Services, provincial and municipal governments in Albay and Camarines Sur, IOM will be conduct site development activities and construct up to 900 permanent houses and up to eight multi-purpose community centers with water and sanitation facilities. The GRP has committed to land identification and preparation activities for the immediate construction of the permanent housing and community centers. This project will also support implement information campaign activities on disaster preparedness. This project is intended to be completed in approximately 12 months with a total budget of $3,500,000.

The Disaster Preparedness and Emergency Assistance/Bicol Project (to be implemented by SCF) focuses on rebuilding the lives and promoting the well-being of children and their families affected by the typhoons in the provinces of Albay and Camarines Sur. It intends to: a) provide non-food commodities; b) support the rehabilitation and diversification of livelihood to ensure household level food security; and c) increase awareness and participation of local governments, public elementary schools, children and communities in disaster risk reduction. Under this project, 8,000 families will be provided with non-food commodity kits that include mosquito nets, mats, blankets, stoves, cooking fuel, hygiene kits, etc. The distribution process will be put in place in close consultation with the local governments. In supporting the rehabilitation and diversification of livelihoods, the project will work with approximately 45 individual subsistence farmers in corn and rice production, vegetable production, backyard livestock raising, and fishing. The project will train the farmers on appropriate farming systems and provide agricultural inputs such as fertilizers, pesticides, seeds, and farming tools. Fishermen will be provided with paddleboats and fishing nets that are approved by the Bureau of Fisheries and Aquatic Resources (BFAR). The project will likewise provide livestock inputs and conduct training on livestock management. These activities are anticipated to be completed in approximately 24 months with an estimated cost is $1,500,000.

Environmental Assessment

Activities under the two Projects such as information campaign and training are not expected to have any significant environmental impacts and are therefore categorically excluded from any further review. If not managed properly, waste generated from the provision of non-food commodities to 8,000 families may have some impacts on the environment and could affect the

overall well-being of the beneficiaries. Therefore, it is recommended that prior to the distribution of the non-food commodities, SCF will develop and implement an appropriate waste management system to reduce the impacts of the waste generated from the distribution and use of the non-food commodities.

Assistance to support the rehabilitation and diversification of livelihoods includes the distribution and utilization of a variety of agricultural inputs such as seeds, farming tools, pesticides, and fertilizers. Although the farmers will be trained on appropriate farming systems that requires less pesticides and fertilizers, the livelihood rehabilitation activity will still involve distribution and utilization of some fertilizers and pesticides. To ensure their safe and appropriate use, prior to the procurement and use of pesticides, the Cognizant Technical Officer (CTO), in consultation with the Mission Environment Officer (MEO), will conduct and prepare a Pesticide Evaluation Report and Safe Use Plan (PERSUAP) for approval of the Bureau Environment Officer. In addition, the project will distribute fishing nets approved by BFAR to promote sustainable fishing methods.

The preparation and construction activities for the 900 core shelters, eight multi-purpose halls and water and sanitation facilities may have impacts on the environment. Up to 700 houses will be constructed at two relocation sites, with about 350 houses in each site. One of the sites is Barangay Mauraru in the municipality of Guinobatan, Albay. The Mauraru site is agricultural land located within an established community, and land clearing activities by NHA are currently underway in preparation for the construction of the houses. The other site is Barangay Tagaytay in the municipality of Camalig, Albay. Tagaytay is an existing relocation site established in the late 1990's. At both relocation sites, IOM will conduct preparation activities such as grading plots and excavating land for sanitation facilities. The remaining 200 houses will be built within at least six different existing communities in Camarines Sur.

Construction activities in developed areas may have potential environmental impacts. While the relocation sites identified are developed areas, potential adverse impacts cannot be excluded until additional information on design and location are known. Therefore, all construction activities will be subject to further review based on the attached environmental screening process currently in use by the Mission for infrastructure and other projects (Annex A). The screening process will determine the extent of the environment impact before USAID authorized the grantee to proceed with construction activities. This will include analysis of water quality and quantity for the proposed water supply system to ensure that it is safe for drinking.

Because of its potential cumulative adverse environmental impact, extensive small-scale construction (greater than 100 units) qualify for a Positive Determination per 22 CFR 216.3 (a)(2)(iii), and requires a BEO-approves Scoping Statement, followed by a BEO-approved Programmatic Environmental Assessment (PEA), each with stakeholder and appropriate municipal, regional, and federal agency inputs, prior to any site preparation and construction.

Monitoring of Mitigation Measures for the Activities

Although approved activities under the two Projects are not expected to have any environmental effects, the Mission will monitor these activities and assess their environmental impacts. For

activities that may have negative impacts on the environment, USAID will monitor the implementation of proposed environmental mitigation measures that will be defined in the environment screening report and the PEA.

Action Required

Pursuant to 22 CFR Part 216.2(c)(2)(i) education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment are categorically excluded from any further environmental review. Activities that fall under this are recommended for Categorical Exclusion. Vocational agricultural training, especially involving the use of pesticides, distribution and use of non-food items which generate wastes, limited small scale construction (less than 100 units) on already developed land and provision of water and sanitation services qualify for a Negative Determination with Conditions pursuant to 22 CFR 216.3 (a)(2)(iii). The conditions include a.) the distribution of non-food commodity will not be subjected to further review for as long as the concerned implementing partner will be committed to developing and implementing an appropriate waste management system; b.) prior to procurement and use of pesticides, the CTO will conduct and prepare a Pesticide Evaluation Report and Safe Use Plan (PERSUAP) as per 22 CFR Part 216.b for approval of the Bureau Environment Officer; and c.) prior to small-scale construction (not greater than 100 units) on already developed land, the CTO will complete the attached environmental screening report (Annex A) for approval by the MEO including water quality analysis. Pursuant to 22 CFR 216.3 (a)(2)(iii), potential cumulative impacts from extensive small-scale construction (greater than 100 units) qualify for Positive Determination and would require a BEO-approved Scoping Statement, followed by a BEO-approved PEA prior to construction.

Due to the urgency and the humanitarian nature of this project, the scoping and PEA will be completed in a reasonable time period so as not to cause any delays in the implementation. The office of the BEO will make available to the Mission necessary expertise as well as best practices from other ANE countries that have had similar environmental regulation requirements to help expedite the scoping and PEA process.

Mary Joy Jochico _____ Date: 8/6/07
Acting Mission Environmental Officer

Jon Lindborg _____ Date: 8/7/07
Mission Director

Concurrence:
John Wilson _____ Date: 8/7/07
Bureau Environmental Officer

Clearance: PRM:LCoughlin
OEE:DMoore cleared via email dated 8/6/07

Environmental Screening Review Report

1.0 BACKGROUND, RATIONALE AND EXPECTED RESULTS

2.0 ACTIVITY DESCRIPTION

Succinctly describe location, siting, surroundings (include a map, even a sketch map). Provide both quantitative and qualitative information about actions needed during implementation, how intervention will operate and any ancillary development activities that are required to build or operate the primary activity (e.g., road to a facility, need to quarry or excavate borrow material, need to lay utility pipes to connect with energy, water source or disposal point or any other activity needed to accomplish the primary one but in a different location). If various alternatives have been considered and rejected because the proposed activity is considered more environmentally sound, explain these.

Project Component Activities

Project Development Phases	Description of Project Activities and Assigned Responsibilities	Responsible Parties
Planning and Design Phase		
Pre-construction Phase Construction Phase Post Construction/ Turnover Operation and Maintenance		
Project Implementation		

3.0 ENVIRONMENTAL BASELINE INFORMATION

Affected environment, including essential baseline information available for all affected locations and sites, both primary and ancillary activities. This information could be presented in a tabular form

Sample Matrix of Environmental Baseline Information

Site Location Characteristics	Environmental Parameters	Recorded/Reported Data and Information
Geographic Location	Latitude (Roadway)	
	Longitude (Roadway)	
Local Topography	Slope/ Terrain	
	Elevation/ (Roadway)	
Local Geology	Soil Type	
	Minerals	
Local Hydrology	Inland Water	
	Present Use	
	Sensitive habitats/species	

Local Climate	Climate type	
	Annual Rainfall	
Natural Physical Hazards	Earthquakes/Volcanic	
	Landslide/Erosion	
	Flooding	
Forest/Vegetation Cover	Type	
	Coverage area	
Land Area and Existing Land Use	Municipal land Area (ha)	
	Land Classification & Use	
Population (Census 2000)	Total Population	
	Total HH	
	Ethnic Group (%)	
Local Economy	Total Labor force	
	Main Income source	
Basic Services and Infrastructures	Water supply	
	Sanitary toilets	
	Electricity	
	Transportation	
	Communication	
	Education	
	Health	
	Social Welfare	
	Mosque	
	Police/Fire Protection	

4.0 EVALUATION OF PROJECT ISSUES WITH RESPECT TO POTENTIAL ENVIRONMENTAL IMPACT

Include impacts that could occur before construction starts during implementation, as well as any problems that might arise with restoring or reusing the site, if the facility or activity were completed or cease to exist. Explain direct, indirect, induced and cumulative effects on various components of the environment (e.g., air, water, geology, soils, vegetation, wildlife, aquatic resources, historic, archaeological or other cultural resources, people and their communities, land use, traffic, waste disposal, water supply, energy, etc.). Indicate positive impacts and how the natural resources base will be sustainably improved.

Sample Environmental Impact Screening Matrix for Road Rehabilitation

Project Activities	Potential Environmental Issues and Concerns Arising from Project Activities	None or Insig Impact	Significant Impact			Duration of Impact	
			Low	Mod	High	Short-term	Long-term
Pre-construction Stage	Affect existing forested area						
	Require tree cutting or vegetation clearing						
	Remove permanent structures of value						
	Damage cultural and historic resources						
	Impair local aesthetic or scenic resources						
	Require additional land for ROW acquisition						
	Cause relocation and resettlement						
	Damage present local service facilities						
	Damage to properties or belongings						
	Impose additional demand on local services						
	Restrict public access to the area						
	Pose human health and safety hazards						

	Create job opportunities/local hired labor						
Construction Stage	Affect existing forested area						
	Generate excess excavation materials						
	Generate construction wastes and debris						
	Induce topsoil erosion/deposition						
	Pose human health and safety hazards						
	Require dump site for waste disposal						
	Impose additional demand for local services						
	Affect pedestrian/vehicular traffic flow						
	Create increased demand for aggregates						
	Create job opportunities/local hired labor						
Post-Construction & Operation Stage	Affect existing forested area						
	Regulate/control access to forest						
	Reduce waste generation and disposal						
	Restore/improve scenic value of roadway						
	Control/regulate road inundation/flooding						
	Offer all-weather year-round access to area						
	Increase volume of traffic flow						
	Save travel time and vehicle operating cost						
	Reduce traffic accident and safety hazards						
	Provide support in increasing local economy						
	Promote/ support in peace development				+		✓

5.0 Environmental Management Plan (Recommended Mitigation, Monitoring and Evaluation Measures)

For example, indicate measures that will be taken to avoid, reduce or compensate for impacts, such as restoration of borrow or quarry areas, replanting of vegetation, compensation for any relocation of homes and residents. Indicate how mitigative measures will be monitored to ensure that they accomplish their intended result or what monitoring might be needed for impacts that one is uncertain about.

Sample Environmental Management Plan for Road Rehabilitation Project

Impact Mitigation and Enhancement Measures	Primary Responsible Parties	Monitoring Indicator(s)	Monitoring Method	Monitoring Frequency	Monitoring Cost	Monitoring Responsibility
Implement good site and environmental management practices. - Protection of vegetation and wildlife - Preservation of environmental quality - Conservation of natural resources.		Percentage of total vegetation area cleared at task end.	Visual inspection and record review	Middle and end of site clearing task		
		Frequency of pollution events arising from construction works	Visual inspection and record review	Start, mid and end of construction		
		Frequency of aggregates delivery by legitimate suppliers	Spot check delivery receipts with Contractor	Start and during construction		
Implement good safety and traffic management practices. - Safety of workers and public from road accidents or injuries - Prevention of damage or destruction of properties as a result of the Works.		Workers supplied safety devices, gears and uniforms; traffic signs and signals installed.	Visual inspection and record review	Daily to weekly to end of construction		
		Workers provided bunkhouse, water supply and sanitary facilities.	Visual inspection and record review	Daily to weekly to end of construction		

		Workers protected from nuisance noise, dust and vibrations	Visual inspection and record review	Daily to weekly to end of construction		
		Pedestrian and motorist provided alternate access to construction area	Visual inspection and record review	Daily to weekly to end of construction		
Help strengthen local capability for enforcement and monitoring of environmental compliance		LGU provided information and orientation on post-construction monitoring of compliance with environmental responsibilities	Environmental compliance monitoring plan	Prior to turnover		
Facilitate the adoption of forest and watershed management schemes to protect and preserve the remaining forest cover within the project's influence.		LGU provided training on implementation and enforcement of forest and watershed management plan including help in the creation of Multi-Sectoral Monitoring Committee	Forest and Watershed management plan	Within the 1st Qtr after turnover		

6.0 Other Information (as appropriate)

Where possible, include photos of the site and surroundings; topographic and/or forest cover maps; list the names of any reference materials or individuals consulted.

ANE 07-129 Philippines Typhoon Reconstruction- Bicol- Annex A

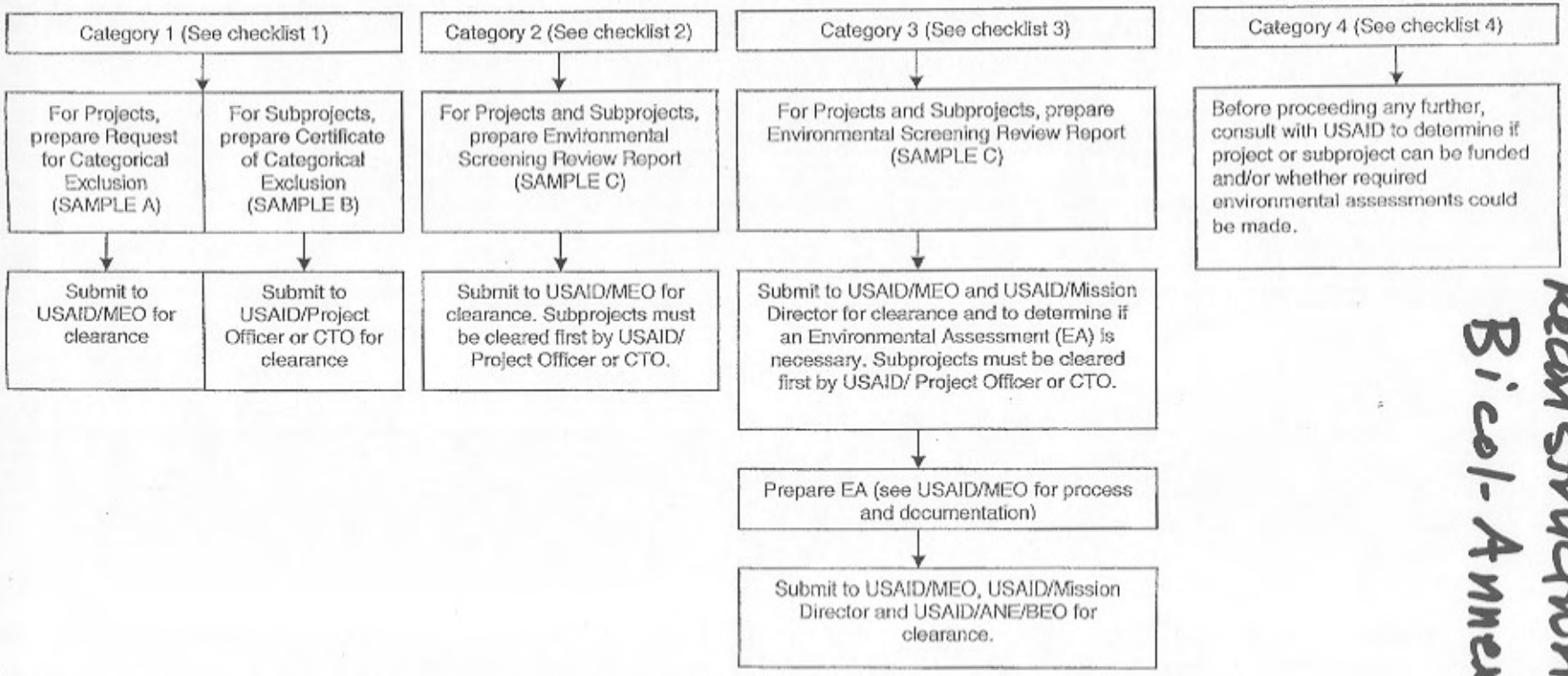
PROCEDURES FOR ENVIRONMENTAL SCREENING OF USAID PROJECTS AND SUBPROJECTS

Annex A

This environmental screening process is aimed at assisting USAID Project Managers, Contractors and Grantees in determining the environmental impacts of USAID-funded projects or subprojects*. In accordance with the Code of Federal Regulations 22 CFR 216, this screening process provides a step-by-step procedure that will serve as a guide to conforming with the environmental policy of USAID. The result of the screening review will inform the USAID Project Manager, Contractor or Grantee if further environmental assessment is needed to determine the extent of the impact before USAID approves funding for the project or the subproject. It is the responsibility of the Project Manager, Contractor or Grantee to complete this Environmental Screening Report for clearance by USAID/Philippines.

Step 1. Determine the nature of the project/subproject according to its impact to the environment using the category checklist.
Step 2. Based on the category, prepare the necessary documentation.
Step 3. Once documentation is completed, seek clearance from the appropriate USAID Officer/s.

The flowchart below illustrates the steps described above:



** Projects are activities under a Strategic Objective; Subprojects are sub activities.*
MEO-Mission Environmental Officer ; ANE/BEO-Asia and Near East Bureau /Bureau Environmental Officer

Category 1 – None to Insignificant Impact to the Environment
(Checklist 1)

- Provision of education, technical assistance, or training. Does *not* qualify for "Category 1" if such programs include activities directly affecting the environment.
- Community awareness initiatives.
- Controlled experimentation exclusively for the purpose of research and field evaluation confined to small areas (normally under 4 ha., i.e., 10 acres) and carefully monitored (when no protected or other sensitive environmental areas could be affected).
- Technical studies and analyses and other information generation activities not involving intrusive sampling of endangered species or critical habitats.
- Document or information transfers.
- Nutrition, health care or family planning. Such programs do *not* qualify for "Category 1" if (a) some included activities could directly affect the environment (construction, water supply systems, etc.) or (b) biohazardous (esp. HIV/AIDS) waste is handled or blood is tested.
- Construction or repair of facilities if total surface area to be disturbed is under 10,000 sq. ft. (approx. 1,000 sq.m.) (and when no protected or other sensitive environmental areas could be affected).
- Support for intermediate credit arrangements (when no significant biophysical environmental impact can reasonably be expected).
- Programs of material and child feeding conducted under Title II of Public Law 480.
- Food for development programs under Title III of P.L. 480, when <u>no</u> on-the-ground biophysical interventions are likely.
- Studies or programs intended to develop the capability of recipients to engage in development planning. Do *not* mark "yes" if these involve activities directly affecting the environment.

Category 2 – Negative environmental impacts possible
(Checklist 2)

If you do not find an exact match listed here for the activity you are undertaking, and it is not in Category 1, 3 or 4, then use the last item in Category 2 to describe the activity and treat it as Category 2 for purposes of environmental review.

- Small-scale activities in agriculture, natural resources management, sanitation, etc.
- Controlled experimentation exclusively for the purpose of research and field evaluation *(areas of 4 ha. or more, i.e.,* 10 acres) and carefully monitored, when neither protected or other sensitive environmental areas could be adversely affected nor threatened and endangered species and their habitat jeopardized.
- Small-scale construction or rehabilitation of facilities or structures in which the surface area to be disturbed exceeds 10,000 sq. ft. where no protected or other sensitive environmental areas could be affected.
- Minor construction or rehabilitation of rural roads less than 10 km. (with no change in alignment or right of way), with ecologically sensitive areas at least 100m away from the road and not affected by construction or changes in drainage; likewise, no protected areas or relatively undergraded forest should be within 5 km. Of the road.
- Nutrition, health care of family planning, *if* (a) some included activities could directly affect the environment (construction, water supply systems, etc.) or (b) biohazardous (esp. HIV/AIDS) *waste is handled or blood is tested.*
- Construction or rehabilitation of small-scale water points or water storage devices for domestic or non-domestic use, not covered in Category 1, when neither protected or other sensitive environmental areas could be adversely affected nor endangered and threatened species jeopardized. *Note that USAID guidance on potable water requires water quality testing for arsenic, coliform, nitrates and nitrites.*
- Quantity imports of commodities such as fertilizers.
- Food for Development programs under Title II or III, involving known biophysical interventions with potential to cause environmental harm *(e.g., roads, bore holes).*
- Support for intermediate credit institutions when indirect environmental harm conceivably could result.
- Institutional support subgrants to NGOs/PVOs when the activities of the organizations are known and raise the likelihood of some environmental impact.
- Technical studies and analyses and other information generation activities that could involve intrusive sampling, including aerial surveys, of endangered species or critical habitats.
- Small-scale use of USEPA-registered least-toxic *general-use pesticides,* limited to contractor/grantee-supervised use by farmers, demonstration, training and education, or emergency assistance. Environmental review must be carried out consistent with USAID Pesticide Procedures as required in Reg. 16 [22 CFR 216.3(b)(1)].
- Other activities not in Category 1 and not in Category 3 or 4.

Category 3 – Significant environmental impacts likely
(Checklist 3)

- River basin or new lands development
- Planned resettlement of human populations
- Penetration road building, or rehabilitation of roads (primary, secondary, some tertiary) over 10 km. Length, and roads which may pass through or near relatively undergraded forest lands or other sensitive ecological areas.
- Substantial piped water supply and sewerage construction
- Major bore hole or water point construction
- Large-scale irrigation
- Water management structures such as dams and impoundments
- Drainage of wetlands or other permanently flooded areas
- Large-scale agricultural mechanization
- Agricultural land levelling
- Procurement or use of restricted use pesticides, or wide-area application in non-emergency conditions under non-supervised conditions
- Light industrial plant production or processing (sawmill operation, agro-industrial processing of forestry products)
- Potential to significantly degrade protected areas, such as introduction of exotic plants or animals.
- Potential to jeopardize threatened & endangered species or adversely modify their habitat (esp. wetlands, tropical forests)

The above Category 3 activities are consistent with USAID criteria for activities that normally require a USAID-specific document with a defined format and procedure, called the Environmental Impact Assessment (EA).

Category 4 --Projects or subprojects not fundable or fundable only when specifically defined findings to avoid or mitigate are made, based on an Environmental Impact Assessment
(Checklist 4)

- Actions determined likely to significantly degrade protected areas, such as introduction of exotic plants or animals.
- Actions determined likely to jeopardize threatened & endangered species or adversely modify their habitat (esp. wetlands, tropical forests)[21]
- Conversion of forest lands to rearing of livestock
- Planned colonization of forest lands
- Procurement or use of timber harvesting equipment
- Commercial extraction of timber
- Construction of dams or other water control structures which flood relatively undergraded forest lands.
- Construction, upgrading or maintenance of roads (including temporary haul roads for logging or other extractive industries), which pass through relatively undergraded forest lands.

Sample A

REQUEST FOR CATEGORICAL EXCLUSION

Title of Activity:
Country/Region: LOP Amount:
Funding Period:
Requestor: Date:
Strategic Objective:

A. Background

B. Description of the Project

C. Environmental Assessment

D. Monitoring of Mitigation Measures for Activities

E. Action Required

Clearances:
Chief/SO Team Leader: _____
Mission Environmental Officer: _____

Sample B

CERTIFICATION OF CATEGORICAL EXCLUSION

Activity/Project	
Project Implementing Partners	
Subproject Name	
Subproject Duration	
Subproject Description	

Certification:

I, the undersigned, certify that:

1. The information in this form is correct and complete.
2. Those responsible for implementing this subproject will monitor and assess its impact on the environment to assure that the subproject complies with environmental requirements established under the Code of Federal Regulations 22 CFR 216.

_____ _____

Contractor/Grantee Date

	Approved:	Disapproved:	Date
USAID Project Officer/CTO:	_____	_____	_____

Sample C

SUMMARY OF ENVIRONMENTAL REVIEW

General Information

Project	
Project Implementing Partners	
Sub-Project Name	
Project/ Sub-Project Duration	
Project Description	
Project Category, Recommended Determination and Documentation	

Certification: I, the undersigned, certify that:

1. The information in this form is correct and complete.
2. The following actions have been and will be taken to assure that the project complies with environmental requirements established under the Code of Federal Regulations 22 CFR 216:
   - Those responsible for implementing this project have received training and/or documents describing essential design elements and best practices for activities of this nature.
   - These design elements and best practices will be followed in implementing this activity, unless USAID specifically request a change.
   - Any specific mitigation and monitoring measures described in the environmental review will be implemented in their entirety.
   - Compliance with the conditions will be regularly confirmed and documented by on-site inspections during the project and its completion.

_____ _____

Contractor/Grantee Date

	Approved:	Disapproved:	Date
USAID Project Officer:	_____	_____	_____
USAID MEO:	_____	_____	_____

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
BUREAU FOR ASIA AND THE NEAR EAST
WASHINGTON, D.C. 20523

RECORD OF ENVIRONMENTAL DECISION

File No: ANE 07-146 Philippines ROD SS Bicol Assistance

PROGRAM/ACTIVITY DATA

Country Code: 292
Country or Region: Philippines
Activity Name: **Record of Decision (ROD) for Scoping Statement (SS) for Programmatic Environmental Assessment (PEA), Bicol Typhoon Reconstruction**

Funding Begin: FY 2007 **Funding End:** FY 2008 **LOP Amount**: $5,000,000
Approval Issue: **Scoping Statement for Programmatic Environmental Assessment**

APPROVAL:

Bureau Environmental Officer Barney Paul Belin for John O. Wilson Date: September 17, 2007
Approved: ☒
Disapproved: ☐

OVERVIEW

Thousands of internally displaced persons (IDP) resulted from super-typhoon DURIAN and associated floods, landslides, and high winds which destroyed homes and villages in November-December 2006 in the Philippines' Bicol Area, 250 miles southeast of Manila. The Environmental Threshold Decision (ETD) for the USAID/Philippines Bicol Typhoon Reconstruction was approved on August 7, 2007 (ANE 07-129). It determined that construction of approximately 350 reinforced-concrete, typhoon-resistant housing units and community center at both the Mauraro Resettlement Site in Guinobatan Municipality and Tagaytay Resettlement Site in Camalig Municipality, Albay Province, Bicol Area southeast of Manila qualifies for **Positive Determination** per 22 CFR 216.3 (a)(2)(iii) because project components may have potential significant adverse impacts on the environment. As a result, a Programmatic Environmental Assessment (PEA) **scoping process** and **PEA** are required, both involving stakeholder participation. Both sites were selected, physically cleared, approved, and donated by the Republic of the Philippines (RP) in cooperation with the National Housing Authority (NHA) and Local Government Units (LGU) from previously agricultural land. These agencies agreed to provide drinking water, electricity, wastewater collection from septic tanks, solid waste collection, road access, hospitals and schools to these two resettlement sites for qualified IDPs. USAID in cooperation with the International Organization for Migration (IOM) and Save the Children Foundation (SCF) conducted scoping sessions or public consultations to prepare the scoping statement to identify potential environmental issues to address in the PEA. These sessions identified community and environmental concerns.

DECISION

The USAID/Philippines **Scoping Statement for the PEA for Bicol Typhoon Reconstruction**, prepared by IOM, dated August 31, 2007, is approved. In addition, the USAID/ANE Bureau Environmental Officer (BEO) suggests that the project team incorporate energy and environmental designs from the U.S. Green Building Council's Leadership in Energy and Environment Design (LEED) program (www.usgbc.org) to minimize energy and environmental impacts, and to encourage the resettlement communities to provide environmental services such as environmental awareness and outreach, rooftop water-harvesting for use and groundwater recharge, waste reduce/ source-separation/ reuse/ recycle/ compost campaigns and associated water-harvesting and waste reuse/ recycling/ composting businesses (www.stopwaste.org).

File No: ANE 07-146 Philippines ROD SS Bicol Assistance

DISTRIBUTION:

Mission Environmental Officer
IEE File

USAID | PHILIPPINES
FROM THE AMERICAN PEOPLE

ANE 07-146 Philippines request for SS approval, PEA for Bicol Assistance

Request for Scoping Statement Approval, in Albay, Bicol Region Typhoon Reconstruction Activities

PROGRAM/ACTIVITY DATA

Country Code: 292
Country or Region: Philippines
Activity Name: **Scoping Statement (SS) for Programmatic Environmental Assessment (PEA), Bicol Typhoon Reconstruction**

Funding Begin: FY 2007 **Funding End:** FY 2007 **LOP Amount:** $5,000,000
Approval Issue: **Scoping Statement for Programmatic Environmental Assessment**

OVERVIEW

The damage and destruction caused by super-typhoon DURIAN and associated floods, landslides, and high winds which destroyed homes and villages in November-December 2006 in the Philippines' Bicol Region Area, 250 miles southeast of Manila resulted in the displacement of thousands of people. USAID/Philippines through grants to Save the Children (SC) and the International Organization for Migration (IOM) is supporting typhoon reconstruction in Bicol for internally displaced persons (IDPs). The Environmental Threshold Decision (ETD) for the USAID/Philippines Bicol Typhoon Reconstruction was approved on August 7, 2007 (ANE 07-129). It determined that construction of approximately 350 reinforced-concrete, typhoon-resistant housing units and a community center in the Mauraro Resettlement Site in Guinobatan Municipality and Tagaytay Resettlement Site in Camalig Municipality, Albay Province, Bicol Region Area qualifies for **Positive Determination** per 22 CFR 216.3 (a)(2)(iii) because project components may have potential significant adverse impacts on the environment.

As a result, a Programmatic Environmental Assessment (PEA) **scoping process** and **PEA** are required, both involving stakeholder participation. USAID, in cooperation with the IOM and SC, conducted two scoping sessions or public consultations on August 28, 2007 in the municipalities of Guinobatan (with 100 participants) and Camalig (with 60 participants) to prepare the scoping statement to identify potential environmental issues to address in the PEA. These sessions and additional analysis identified community concerns such as housing ownership, livelihood and training opportunities and beneficiary selection, and environmental concerns such as soil erosion, dust, earthquakes, water pollution, wastewater generation, landslides, flooding and solid waste management. Both sites were selected, physically cleared, approved, and donated by the Philippine Government in cooperation with the National Housing Authority (NHA) and Local Government Units (LGU) from previously agricultural land. At the scoping meetings, these agencies agreed to provide drinking water, electricity, wastewater collection from septic tanks, solid waste collection, road access, health centers and schools to these two resettlement sites for qualified IDPs.

RECOMMENDATION

The USAID/Philippines Scoping Statement for the PEA for Bicol Typhoon Reconstruction, prepared by IOM and dated August 31, 2007, is recommended for approval by the USAID/ANE Bureau Environmental Officer (BEO).

Mission Director _____ Date: 9/12/07
Jon D. Lindborg

Mission Environmental Officer _____ Date: 11 Sept 2007
Daniel C. Moore

APPROVAL

Bureau Environmental Officer Barney Paul Popkin for Date: September 17, 2007
John O. Wilson
Approved: ☐
Disapproved: ☐

Annex 2

SCOPING STATEMENT

For

Typhoon Reconstruction Activities in Albay, Bicol Region

BACKGROUND

In the Philippines, Albay and its nearby provinces are undergoing the cumulative dismal effects of a recent spate of natural disasters within a period of five months last year: high volcanic activity and one typhoon after the other --- all of which have caused vast population displacement. The population of the affected areas were still in the process of early recovery and return to "normalcy" in their social and economic lives when Typhoon Durian hit the Bicol Region in November 2006. Typhoon Durian registered the highest rainfall level in the Philippines since 1967. The combination of the heavy rainfall from Typhoon Durian, other recent typhoons, and volcanic activity has undoubtedly exacerbated Albay's disastrous situation.

Typhoon Durian wrought havoc to more than 2 million people (458,632 families) in the Bicol Region. The Government of the Republic of the Philippines is continuing its efforts towards permanent relocation of the affected families by having identified 11 permanent relocation sites, and committing to the construction 4,100 permanent core shelters. Despite these efforts, there still remains an assumed permanent shelter need of 107,312 units.

DESCRIPTION OF INTERVENTIONS

USAID/Philippines' typhoon reconstruction activities includes the International Organization for Migration's (IOM) "Bicol Core Permanent Shelter and Community Revitalization Assistance Project" and Save the Children's (SC) "Disaster Preparedness and Emergency Assistance in Bicol". This scoping statement will focus on activities towards the construction of a multi-purpose community center and 350 core shelter units in each of the Municipalities of Guinobatan and Camalig. The sites earmarked for the construction of these units have been identified by their Provincial Governments in consultation with their respective local government units. The sites have been assessed and cleared for resettlement by the following national government agencies: (1) National Housing Authority (NHA), (2) Mines and Geosciences Bureau of the Department of Environment and Natural Resources (MGB – DENR); and (3) Philippine Institute of Volcanology and Seismology of the Department of Science and Technology (PHIVOLCS – DOST).

ENVIRONMENTAL IMPACTS

On August 28, 2007, an assessment team, composed of representatives from USAID, IOM and SC, facilitated two separate public consultations in the Municipalities of Guinobatan and Camalig (See Annexes A1 and A2 for respective consultation agenda). A total of 100 participants attended the consultation in Guinobatan and 60 participants attended the consultation in Camalig (See Annexes B1 and B2 for respective participant lists). Participants of the consultations included representatives from relevant local government units, national and provincial government agencies, academe, non-government organizations, members of the communities in which the core shelters and community centers will be built and of course members of the beneficiary communities. It was clear that the consultations served as a venue for the participants to raise their concerns freely.

This scoping statement and its follow up Programmatic Environmental Assessment, both containing input from various stakeholders, are intended to meet the requirements of the USAID Bureau of Environmental Officer-Approved Environmental Threshold Decision and Initial Environmental Examination dated on August 7, 2007.

From the consultations and additional discussions among the USAID-IOM-SC team the following issues were identified:

Issue	Identified Concern
From GUINOBATAN and CAMALIG	
Workers	• safety of workers
Air	• generation of dust • degradation of air quality • generation of noise
Soil	• soil erosion • deposition • flooding • loss of vegetation • sedimentation/siltation (The above concerns apply to the construction and post construction phases)
Water	• water pollution • flooding • sedimentation • generation of waste water • increase of water related illnesses
Solid Waste	• generation of solid waste • management of solid waste • increase of health concerns related to improper solid waste management
Land Ownership	• understanding of the screening process for the allotment of shelter units • access to information regarding land titles and type of

	ownership in the new relocation sites.
Traffic	• over congestion of roads • increase of vehicular accidents
Water and Electricity	• details about the provision of water and electricity in the new relocation sites •
Core Shelter Units	• concerns raised regarding the SPHERE and the National Socialized Housing Code minimum standards for living space in core shelter units
Livelihood	• opportunities for livelihood for beneficiaries in the new relocation sites
Contribution of Beneficiaries	• counterpart contribution expected of the beneficiaries
From GUINOBATAN	
Schools in Relocation Site	• Construction of new school buildings in the relocation site in Guinobatan

It was the consensus of the assessment team that, as clearly manifested in the plenary discussions in both consultations, environmental issues may not readily and prominently figure into a post disaster community's mindset. This is not to say that beneficiaries are totally unaware of environmental issues. To enhance awareness concerning environmental issues in the relevant communities, environmental awareness elements will be incorporated into the disaster preparedness and information campaign activities set for this assistance.

DESCRIPTION OF HOW ANALYSIS WILL BE CONDUCTED

Based on the results of the scoping meetings, project site visits, consultation with concerned local and national government agencies, the environmental assessment will be carried by a team led by IOM. The analysis will primarily be conducted in Legazpi City through individual contributions of the team members with periodic coordination and leveling off meetings. Team members in Manila will closely coordinate with IOM and SC Legazpi City team throughout the entire process.

GEOHAZARD IDENTIFICATION REPORT ON THE PROPOSED RELOCATION SITE IN BICOL UNIVERSITY COLLEGE OF AGRICULTURE & FORESTRY (BUCAF), BRGY. MAURARO, GUINOBATAN, ALBAY

Mines and Geosciences Bureau
North Avenue, Quezon City

December 2006

REPORT ON THE GEOHAZARD IDENTIFICATION SURVEY OF THE PROPOSED RELOCATION SITE IN BICOL UNIVERSITY COLLEGE OF AGRICULTURE & FORESTRY (BUCAF), BRGY. MAURARO, GUINOBATAN, ALBAY

1. INTRODUCTION

Pursuant to the instruction of Director Horacio C. Ramos of the Mines and Geosciences Bureau (MGB), Central Office, a team composed of three (3) geologists of the Lands Geological Survey Division-Central Office, were dispatched to assist the MGB-5 Regional Office in undertaking geological hazards assessment of proposed relocation sites in municipalities and city in Albay Province affected by lahar flows and flash floods brought about by the heavy rainfall of typhoon Reming in November 2006.

This report presents the results of the geohazard identification survey on the proposed relocation site within the property of Bicol University College of Agriculture & Forestry (BUCAF) in **Barangay Mauraro, Guinobatan, Albay**. The geohazard identification survey involved identification and evaluation of possible geohazards that exists and may affect the sites.

The two (2) proposed relocation sites within the property of BUCAF have an area of **eight (8) and seven (7) hectares** and are centered (handheld GPS read) at **13^0 9' 34.5" N; 123^0 35' 16.2" E and 13^0 9' 29.5" N 123^0 35' 21.8" E**, respectively. The proposed sites are approximately 5.5 km. from the town proper of Guinobatan, Albay.

2. OBSERVATIONS

The following observations were made during the survey:

Land use	At the time of assessment, no land development was observed at the site which is mostly covered with cogon grass and coconut trees.
Geomorphology	The project site lies on an alluvial plain (0-2% slope gradient), which extends towards the northern and eastern extent of the site. The western extent is bordered by karst terrain composed of steep sloping conical hills and karst border plain.

Geology	The project site is underlain by clastic sediments of the Talisay Formation (MMAJ-JICA 1999). The Talisay Formation is an assemblage of calcareous and highly fossiliferous sedimentary rocks unconformably overlying the Tinalmud Formation. As described by BMG (1981), its sub-units include the Talisay Limestone, Aliang Siltstone, Paulba Sandstone and Malama Siltstone. Here, these sub-units are considered members of the Talisay Formation, and the limestone is designated merely in an informal sense as the limestone member. Paleontological dating of foraminifera indicates that the age of the limestone is Late Miocene while that of the clastic rocks is Pliocene.
Surface Water	The proposed site is not traversed by any body of water. The nearest natural drainage is approximately 2.5 kilometers northeast of the site.

Geohazards and Possible Engineering Problems

There are no significant geologic hazards at the proposed relocation site, except for ground shaking normally felt during earthquakes in the country and ashfall from volcanic eruption.

3. CONCLUSIONS AND RECOMMENDATIONS

In view of the observations and findings made during the survey, the following conclusions and recommendations are given:

- The proposed area is suitable as relocation site since there are no significant forms of geologic hazards observed at the proposed site, except for effects of ground shaking during an earthquake and ashfalls from volcanic eruptions.

- An estimated 0.4 g. peak ground acceleration or g-factor based on Thenhaus, et. al. probabilistic estimates should be considered in the design and construction of houses.

- Houses constructed at the site must be in accordance with the National Structural Code of the Philippines.

SALVIO B. LASERNA
Supervising Science Research Specialist- Geologist

ALVIN LUCIO M. FERNANDO
Senior Science Research Specialist- Geologist

CZARINA V. MORGIA
Science Research Specialist II- Geologist

ANNEX

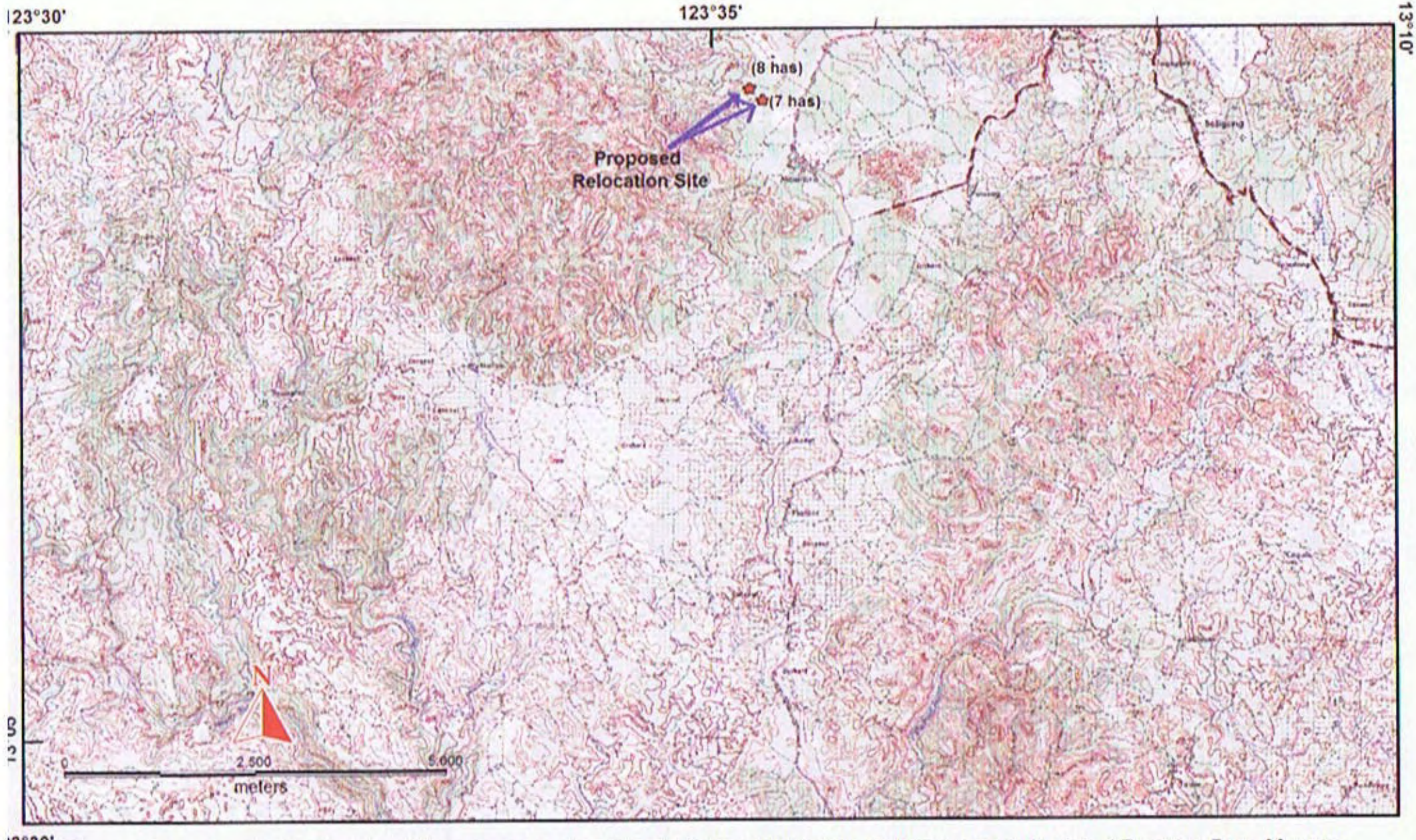


Figure 1. Map showing the location of the proposed relocation site in Bicol University, College of Agriculture and Forestry, Brgy. Mauraro, Guinobatan, Albay (Source: NAMRIA 1:50,000 scale Topographic Map, Legazpi City Quadrangle, 3727-III, 1996 Edition).

View of the 7-hectare possible relocation site in BUCAF area showing relatively flat terrain.

The 8-hectare southern extension of possible relocation site in BUCAF area is characterized by flat topography. The hilly portion at the background is not included in the proposed relocation site.

Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU
North Avenue, Diliman, Quezon City, Philippines
Tel. No. (+63 2) 928-8642 / 928-8937 Fax No. (+63 2) 920-1635 E-mail: central@mgb.gov.ph

MEMORANDUM

FOR : **REYNULFO A. JUAN.**
Regional Director, Region V

FROM : **ANTONIO N. APOSTOL, JR.**
OIC- Lands Geological Survey Division
Central Office

SUBJECT : **GEOHAZARD IDENTIFICATION REPORTS ON THE PROPOSED RELOCATION SITES IN GUINOBATAN, ALBAY.**

DATE : December 21, 2006

Respectfully forwarded to your office a copy of the Geohazard Identification Reports (GIR) of the proposed relocation sites in Guinobatan, Albay.

For your information and perusal.

ANTONIO N. APOSTOL

RECEIVED
ENB-V
BY:
DATE: JUN 23 2005

Republic of the Philippines
PROVINCE OF ALBAY
Legazpi City

Office of the Governor

June 22, 2005

MEMO CIRCULAR NO. 037

TO : CITY/MUNICIPAL MAYORS

SUBJECT : Solid Waste Management Boards

Relative to the implementation of RA No. 9003, otherwise known as "Ecological Solid Waste Management Act of 2000" and related laws, inc Provincial Ordinance No. 2003-12, known as Albay Environment Code, provide this office with the list of membership of your existing or reconstituted Local Solid Waste Management Board. May we have the requested list soonest for our reference.

Moreover, since the organization of Barangay Solid Waste Management Committee is also required, we shall appreciate your efforts to have the BSWM Committees constituted or reactivated.

Please be informed also that during the meeting of the Provincial Solid Waste Management Board on June 16, 2005, at the People's Hall, it was emphasized by Regional Director Gilbert C. Gonzales of DENR-EMB that the law requires all LGUs to convert open garbage dumpsite to controlled dumpsite and eventually establish sanitary landfill. However, considering the project cost and if individual LGUs don't have sufficient capacity to finance the project, we would encourage clustering of LGUs to pursue joint or common sanitary landfill projects. In this connection, although the PSWMB has opted to organize a TWG to assist preparation of the SWM Plan, this matter could already be taken up during a meeting of the ADTs.

Please give this matter your preferential attention.

FERNANDO V. GONZALEZ

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City
Tel Nos. (632) 929-66-26 to 29 * (632) 929-62-52
929-66-20 * 929-66-33 to 35
929-70-41 to 43

SEP 1 4 2006

DENR ADMINISTRATIVE ORDER NO. 09
Series of 2006

SUBJECT: General Guidelines in the Closure and Rehabilitation of Open Dumpsites and Controlled Dump Facilities

Pursuant to Section 37 of RA 9003 otherwise known as the Ecological Solid Waste Management Act of 2000 and DENR Administrative Order No. 2001-34, the Implementing Rules and Regulations of RA 9003, the following guidelines on the closure and rehabilitation of open dumpsites and controlled dump facilities are hereby promulgated:

SECTION 1. RATIONALE

RA 9003, specifically Section 37, states that *"No open dumps shall be established and operated, nor any practice or disposal of solid waste by any person, including LGUs, which constitutes the use of open dumps for solid waste be allowed after the effectivity of the Act: Provided, that within three (3) years after the effectivity of this Act, every LGU shall convert its open dumps into controlled dumps, in accordance with the guidelines set in Section 41 of this Act. Provided, further, that no controlled dumps shall be allowed five (5) years following effectivity of this Act."* Therefore, all open dumps and controlled dump facilities should have been closed and phased out as of February 16, 2006.

These guidelines adequately address and mitigate the possible effects/impacts of open dumpsites and controlled dump facilities, thus ensuring that their closure will be done in a proper manner, with environmental protection measures and safeguards in place.

Furthermore, these guidelines support the National Solid Waste Management Commission Resolution No. 5, the Guidelines on the Closure and Rehabilitation of Open and Controlled Disposal Facilities which was approved on December 15, 2005.

SECTION 2. OBJECTIVES

2.1 To establish prescribed workable parameters and mechanisms for the proper closure of existing open dumpsites and controlled

dump facilities in compliance with Section 37 of Republic Act 9003.

2.2 To establish closure requirements and a schedule of rehabilitation activities based on the conditions of the present site, operational level, existing facilities, and the surrounding environment.

SECTION 3. SCOPE

These guidelines shall cover the procedures and requirements for the LGUs to facilitate the full closure program of open dumpsites (ODs) and controlled dump facilities (CDFs), determine the post-closure land utilization and effect adequate rehabilitation of the site. It likewise provides the DENR approval process for the closure and rehabilitation program.

The guidelines shall likewise apply to CDFs operated by private entities. In the event where the LGU commissioned a private entity to undertake the development and operation of the CDF, the LGU shall be responsible for the submission of the necessary closure and rehab plan to the DENR.

SECTION 4. ROLE OF THE LGUS AND/OR PRIVATE OPERATORS

The LGUs and/or private operators shall prepare and implement a Closure and Rehab Plan for the existing open dumpsites and/or controlled dump facilities. The said program shall be viewed as an integral part of the overall implementation of the LGU Solid Waste Management Plan.

4.1 The LGU shall undertake the preliminary closure assessment and a complete rundown of all possible data that need to be covered to come up with a comprehensive and relevant assessment.

4.2 The LGU must submit the closure plan to the EMB Regional Office for review and approval and implement the same as soon as the Authority to Close (ATC) is issued.

SECTION 5. ROLE OF THE DENR

The DENR and EMB Regional Offices shall guide the LGUs in the formulation of the closure plan and other related activities.

5.1 The PENR/CENR Offices shall provide technical assistance to the LGUs in the preparation of the closure and rehabilitation

plans. After initial review, the same shall be endorsed to the EMB Regional Office;

5.2 The EMB Regional Office shall review and evaluate the closure plan submitted by the LGU within fifteen (15) days from submission. After which, the EMB shall respond appropriately (i.e., that is issue the Authority to Close, [ATC] if closure plan is found sufficient, or inform the LGU of other requirements, if any).

The ATC shall stipulate the approval of the Closure and Rehab Plan along with the conditions identified to carry out the activities in the closure program, the post-closure land utilization and monitoring thereof.

5.3 The EMB Regional Office, with the assistance from the PENRO/CENRO shall likewise continue to monitor and update the existing database on open dumpsites and as appropriate, endorse for the elevation of cases to the Environmental Ombudsman against non-complying LGUs.

5.4 The CENRO shall conduct regular inspection and monitoring of the dumpsite during the actual closure activities and thereafter to ensure that the site is not utilized as an open dump. Cases where the closed site is reused as an open dump/controlled dump must be reported to the concerned DENR Regional Executive Director and EMB Regional Director for the imposition of appropriate sanctions in accordance with RA 9003 and other applicable rules and regulations.

SECTION 6. PROCEDURES FOR CLOSURE AND REHABILITATION

The following guidelines shall provide the LGUs with the appropriate closure procedure and the extent of subsequent work needed to undertake the full closure program on Municipal Solid Waste (MSW) disposal sites.

6.1 Pre-Closure Assessment

The activities covered by the pre-closure assessment shall include the following:

6.1.1 Review of available records, files and information regarding the dump

6.1.2 Evaluation of potential or existing impacts on the ecological and human environment

6.1.3 Determination of potential contaminants (if any) which could get into the local environment and the formulation of appropriate mitigating and remedial measures.

6.2 Assessment Parameters

6.2.1 Review of the geology of the site, depth of groundwater, total volume/capacity and types of wastes disposed, reports, studies, historical records concerning the dumpsite (operations, unusual events such as fires, dumping of hazardous wastes, etc.)

6.2.2 Review of relevant available maps (map of the dumpsite and its surroundings, topographic, geologic, hydrogeologic, land use)

6.2.3 Identification of existing land uses around the area.

6.2.4 Interview of those directly involved with the operation of the dumpsite, waste pickers, and residents near site

6.2.5 Inventory of existing settlements, structures, surface water bodies, springs and water wells. If practical, water samples may be taken to determine extent of contamination.

6.2.6 Determination of points of leachate seepage and ponding within and beyond the disposal facility.

6.2.7 Where appropriate and for larger dumpsites, conduct topographic survey of the dumpsite, extending some distance from its boundaries.

6.2.8 Conduct geo-technical investigation of large open dumps to determine stability of slopes.

6.2.9 Identification of sources of soil or other cover material for the site.

6.2.10 Determination, if practical, of the depths of the dumped wastes

6.2.11 Determination of gas leakage within and on the areas surrounding the dumpsite

6.2.12 Conduct leachate and gas sampling (if practical)

6.3 Components of the Closure and Rehabilitation Plan

After conducting the site assessment, the LGU shall prepare the Closure and Rehabilitation Plan which shall include the following basic components:

A. Site Clearing. Storage areas for recyclables, makeshift huts and other structures within the boundaries of the disposal facility should be removed.

The LGUs on the other hand may coordinate with the National Housing Authority, other government agencies, NGOs and POs to determine the assistance needed in the possible relocation and alternative livelihood for the families affected by the disposal site closure program.

B. Site Grading and Stabilization of Critical Slopes. The most critical aspect of the closure plan is the stabilization of the usually unstable slope within the site. The closure plan shall make provisions for the identification of areas within the dumpsites with potential instability. The slope profile shall be re-structured with sustained filling to further improve the overall stability or until the desired top and side grades have been attained.

The exposed waste should be compacted and the top graded to slopes ranging from 2 to 4% to prevent ponding and promote natural drainage. Side slopes can be generally set at the ratio of 1 vertical to 3 horizontal or gentler depending in the nature of waste and actual site conditions.

C. Application and Maintenance of Soil Cover. The graded site should be covered with soil, inert or stable material or clay material to prevent entry of water into the waste pile and access by vectors. The final cover should be at least 60 centimeters which include a 15 - cm topsoil and a 45-cm compacted soil. The topsoil, which is usually not compacted, shall serve as protection layer for the compacted soil cover and as a barrier to reduce entry of water into the waste pile, minimize gas migration if any, prevent animals from getting into the underlying waste, minimize the emission of odors and support vegetation growth.

D. Provision of Drainage Control System. Peripheral canals or ditches should be constructed around the site to divert runoff. The intention is to prevent contact of the waste pile with water thereby reducing the potential for leachate

generation.

E. Leachate Management. The pre-closure assessment should determine the points of exit of the leachate from the waste pile from which a canal or ditch can be built to facilitate collection. The contaminated liquid must not be allowed to drain into streams or natural bodies of water. The collected leachate may then be allowed to evaporate or sprayed back into the waste pile. Otherwise, the leachate must be treated through other appropriate process.

Natural attenuation may be resorted for small volume of leachate generated from old dumpsites of small capacity/or intermittently used.

F. Gas Management. Vents made up of appropriate materials such as bamboo or PVC pipes shall be installed at selected points within the waste pile. As a general rule, vents may be spaced 50 meters apart.

A more extensive leachate and gas management program may be developed and implemented depending on the results of the assessment or on gas utilization program of the LGU.

G. Fencing and Security. A fence shall be constructed around the dumpsite to prevent unauthorized entry of waste pickers, children and illegal settlers and stray animals. The extent of fencing shall be dictated by field conditions. Natural materials such as shrubs or fast growing trees may be used particularly in rural areas. Regular visits by an LGU designated security shall be undertaken to deter illegal dumping.

H. Putting up of Signage. An appropriate sign indicating containing the following messages should be put up at a conspicuous place near or at the entry section of the dumpsite:

- Name of Dumpsite
- Status of Operation
- Prohibition of burning, squatting, children and animal access

I. Prohibition of burning at the dumpsite. Burning of waste must be prohibited at the dumpsite.

SECTION 7. **SEPARABILITY CLAUSE**

If any section of these guidelines is held or declared unconstitutional or invalid by a competent court, the other sections or provisions hereof shall continue to be in force as if the sections or provisions so annulled or voided have never been incorporated herein.

SECTION 8. **REPEALING CLAUSE**

All pertinent guidelines, rules and regulations or portions thereof inconsistent with these Guidelines are hereby revised, amended and/or modified accordingly.

SECTION 9. **AMENDMENTS**

These guidelines may be amended and/or modified in whole or parts hereof from time to time by the DENR.

SECTION 10. **EFFECTIVITY**

These guidelines shall take effect fifteen (15) days after publication in two (2) newspapers of general circulation and filing with the office of the National Administrative Register.

ANGELO T. REYES
Secretary, DENR and
Chairman, NSWMC

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
IN REPLYING, PLS CITE:
SENR06-004565

Republic of the Philippines
Department of Environment and Natural Resources
Visayas Avenue, Diliman, Quezon City
Tel Nos. (632) 929-66-26 to 29 * (632) 929-62-52
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929-70-41 to 43

SEP 1 4 2006

DENR ADMINISTRATIVE ORDER NO. 10
Series of 2006

SUBJECT: Guidelines on the Categorized Final Disposal Facilities (Sanitary Landfills)

Consistent with Sections 37, 40, 41 and 42 of Republic Act 9003, otherwise known as the Ecological Solid Waste Management Act of 2000 and DENR Administrative Order No. 2001-34, the Implementing Rules and regulations of Republic Act 9003, the following guidelines on the categorized final disposal facilities are hereby promulgated:

SECTION 1. RATIONALE

RA 9003 specifically provides for the Closure of Open Dumps, Criteria for Siting, and Establishment and Operation of Sanitary Landfills, which require basic environmental and engineering safeguards.

These guidelines are based on the potential net residual solid waste generation for setting the entry level of LGUs into the various categories of disposal facilities, taking consideration the environmental, financial, socio-economic as well as the hydro-geological dimensions within the LGUs.

The categories in these guidelines are consistent with the overall objectives of RA 9003, which are to minimize waste, maximize diversion, and use disposal facilities and other ecologically-acceptable alternative technologies for the management of residual wastes.

Furthermore, these guidelines support the National Solid Waste Management Commission Resolution No. 6, the Guidelines on the Categorized Final Disposal Facilities (Sanitary Landfills, SLFs) which was approved on December 15, 2005.

SECTION 2. OBJECTIVE

These guidelines are promulgated in order to support Local Government Units in their planning and implementing strategies on ecological solid waste management through a set of categories on disposal

facilities, specifying realistic categories and reasonable conditions for meeting legal requirements.

SECTION 3. SCOPE

The guidelines shall cover the different categories and requirements of Municipal Solid Waste (MSW) Disposal facilities and the necessary permits accorded for each category. These shall guide the LGUs, a cluster of LGUs and/or developers in the design, construction and operation of sanitary landfills.

SECTION 4. CATEGORIES OF FINAL DISPOSAL FACILITIES

The following categories of final waste disposal facilities have been developed and designed in consideration of the *net residual waste generation* of the LGUs, taking into account the environmental setting/condition of the site where the SLFs shall be established.

The category of SLF shall be based upon the determination of net residual waste, given the potential waste generation by the LGU, less waste diverted through composting, recycling and other recovery methods. It shall likewise consider the projected waste increase over a 10-year period.

Lower disposal categories may be maintained by LGUs implementing sustained and full scale diversion through recycling/ or various methods of composting.

Each LGU or cluster of LGUs may develop and operate their respective final disposal facilities and progressively move from a lower to a higher category as the amount of disposable residual waste increases over time.

4.1 Category 1
A final disposal facility applied to LGUs with net residual waste generated of less than or equal to 15 tons per day (TPD). It shall also apply to a cluster of LGUs with a collective disposable residual waste of less than or equal to 15 TPD.

4.2 Category 2
A final disposal facility applied to LGUs with net residual waste generated of greater than 15 TPD but less than or equal to 75 TPD. It shall also apply to a cluster of LGUs with a collective disposable residual waste greater than 15 TPD but less than or equal to 75 TPD.

4.3 Category 3

A final disposal facility applied to LGUs with net residual waste generated of greater than 75 TPD but less than or equal to 200 TPD. It shall also apply to a cluster of LGUs with a collective disposable residual waste greater than 75 TPD but less than or equal to 200 TPD.

4.4 Category 4

A final disposal facility applied to LGUs with net residual waste generated of greater than 200 TPD. It shall also apply to a cluster of LGUs with a collective disposable residual waste greater than 200 TPD.

SECTION 5. DEVELOPMENT AND OPERATIONAL FEATURES OF THE CATEGORIZED FINAL DISPOSAL FACILITIES

5.1 Matrix of the Implementation Features

Features	Category 1 ≤ 15 TPD	Category 2 > 15 TPD ≤ 75 TPD	Category 3 > 75 TPD, ≤ 200 TPD	Category 4 > 200 TPD
Daily and Intermediate Soil Cover	√	√	√	√
Embankment/Cell Separation	√	√	√	√
Drainage Facility	√	√	√	√
Gas Venting	√	√	√	√
Leachate Collection	√	√	√	√
Leachate Treatment	Pond System	Pond system	Pond system	Combination of physical, biological & chemical
Leachate Re-circulation	At a later stage of operation	At a later stage of operation	At a later stage of operation	Treatment
Clay liner	√[1]	√[2]		
Clay liner and/or synthetic liner			√[3]	√[4]

[1] Clay liner be at least 60 cm thick and has a permeability of 10^{-6} cm/sec

[2] Clay liner must be at least 75 cm thick and has a permeability of 10^{-6} cm/sec

[3] Clay liner at least 75 cm thick clay liner with a permeability of 10^{-7} cm/sec or better, if not available, an equivalent replacement would be a composite liner consisting of at least 1.5mm thick HDPE membrane over at least 60 cm thickness of compacted fine materials with permeability no more than 10^{-6} cm/sec.

[4] Synthetic liner at least 1.5mm thick HDPE membrane over at least 60 cm thickness of compacted clay materials with permeability no more than 10^{-7} cm/sec.

5.2 Facility Development and Operating Requirements

All waste disposal facilities, regardless of category, shall satisfy the Basic Siting Criteria stated in Section 40 of RA 9003 and its IRR, and shall meet the following operating requirements, unless when otherwise specified.

1. Planned capacity with phased cell development.
2. Site preparation and containment engineering.
3. Compaction of waste to minimum specified target densities.
4. Specified operational procedures to protect amenities.
5. Fence, gate and other site infrastructure with surfaced primary access road.
6. Full record of waste volumes, types and source.
7. Separate cells for municipal solid waste, treated toxic hazardous waste (THW) or health care waste (HCW). Handling and management of THW and HCW should be in accordance with the provisions of Republic Act 6969 and Joint DENR-DOH Administrative Order No. 02, respectively.
8. Facility operation by a pool of fully-trained staff.
9. Prohibition of open burning.
10. Provision for aftercare following site restoration and closure.
11. Prohibition of waste pickers at the immediate disposal area.

SECTION 6. PERMITTING REQUIREMENTS

The establishment and operation of the different categories therein shall be consistent with Section 38 of RA 9003 and the requirements stipulated in the Procedural Manual for DENR Administrative Order No. 30 Series of 2003 and Memorandum Circular No. _____ Series of 2006.

6.1 For Categories 1 and 2, the application for an Environmental Compliance Certificate (ECC) shall require the submission of an Initial Environmental Examination (IEE) Checklist. The IEE Checklist may be secured from the regional offices of the Environmental Management Bureau (EMB).

6.2 For Categories 3 and 4 however, the documentary requirements for the application and issuance of the ECC shall be an Initial Environmental Examination (IEE) Report.

6.3 In view further of the provisions of the Procedural Manual for DENR Administrative Order No. 30, ECC application for sanitary

landfill projects with a daily capacity of 1,000 metric tons and above shall be required an Environmental Impact Study (EIS).

SECTION 7. SEPARABILITY CLAUSE

If any section of these guidelines is held or declared unconstitutional or invalid by a competent court, the other sections or provisions hereof shall continue to be in force as if the sections or provisions so annulled or voided have never been incorporated herein.

SECTION 8. REPEALING CLAUSE

All pertinent guidelines, rules and regulations or portions thereof inconsistent with these Guidelines are hereby revised, amended and/or modified accordingly.

SECTION 9. AMENDMENTS

These guidelines may be amended and/or modified in whole or parts hereof from time to time by the DENR.

SECTION 10. EFFECTIVITY

This Order shall take effect fifteen (15) days after publication in two (2) newspapers of general circulation and filing with the office of the National Administrative Register.

ANGELO T. REYES
Secretary, DENR and
Chairman, NSWMC

Republic of the Philippines
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
IN REPLYING, PLS CITE:
SENR06-004566

Report on the Geohazard Identification Survey of the PROPOSED NEW TAGAYTAY RESETTLEMENT SITE Located in Barangay Tagaytay, Camalig, Albay

Prepared by

JOSE MARCEL S. LAUD
Senior Geologist

Department of Environment and Natural Resources
MINES AND GEOSCIENCE BUREAU
Regional Office 5, Banag, Daraga, Albay
December 2006

REPORT ON THE GEOHAZARD IDENTIFICATION SURVEY OF THE PROPOSED NEW TAGAYTAY RESETTLEMENT SITE, LOCATED IN BARANGAY TAGAYTAY, CAMALIG, ALBAY

1.0 INTRODUCTION

In view of the devastation brought about by Typhoon Reming on November 30, 2006 that triggered massive lahar flows on the City of Legaspi and the towns of Guinobatan, Camalig, Sto Domingo and Daraga bringing with it hundreds of casualties and massive destruction of properties, a geohazard assessment of possible permanent relocation sites was conducted in several areas selected by these affected Local Government Units.

The activities undertaken in the geohazard identification survey include reconnaissance to semi-detailed geologic mapping. Important observations on the geomorphology, landuse, groundwater, surface hydrology and geohazards were made during the survey. One auger drillhole was dug within the area and two soil samples representing the underlying subsurface soils were collected and megascopically identified in the field.

An existing FVR-FNM Resettlement Site is located in Barangay Tagaytay, Camalig, Albay. It is centered by coordinates N 13°09'38.5" and E 123°37'49.5" with approximate elevation of 110 meters above sea level (Figure 1.). It is situated approximately 3 km. southwest of Camalig Town Proper. This existing resettlement site provided relocation for families from Barangay Anoling who lives within the six kilometer danger zone. The proposed relocation site is an expansion of the FVR-FNM Site situated south west of the existing FVR-FNM Site. It falls within coordinates N 13°09'38.1" and E 123°37'40.8". According to Camalig's Municipal Engineer, there is an available 17 hectares for further development.

2.0 OBSERVATIONS

The following observations were made during the survey:

LANDUSE

The proposed site for expansion that is about 17 hectares is presently being used as a coconut plantation area and for banana as well as some fruit tree cultivation. (Figure 3)

GEOMORPHOLOGY

The proposed Tagaytay relocation site adjacent to the FVR-FNM Resettlement Site is situated on a plateau-like terrain west of Mt. Mayon (Figure 2). It is characterized by nearly flat to gently sloping terrain with gradients ranging from 2% - 3%. Terrain conditions at this site are much better than the existing FVR-FNM Resettlement Site which is located on steeply sloping terrain.

GEOLOGY

Sand and sandy clay layers with intercalated volcanic tephra and pebble sized red and black scoria was encountered down to 2.65 meters below ground surface (mbgs). Silt sized grains observable in the clay towards bottom. It is believed that the bottom layer which was not drilled consists of sedimentary sequence of the Sandstone – Siltstone Albay Group Formation. No calcareous facies was observed at the site, however, several hills around the site consist of white to cream colored cliff forming limestone. (Figure 1)

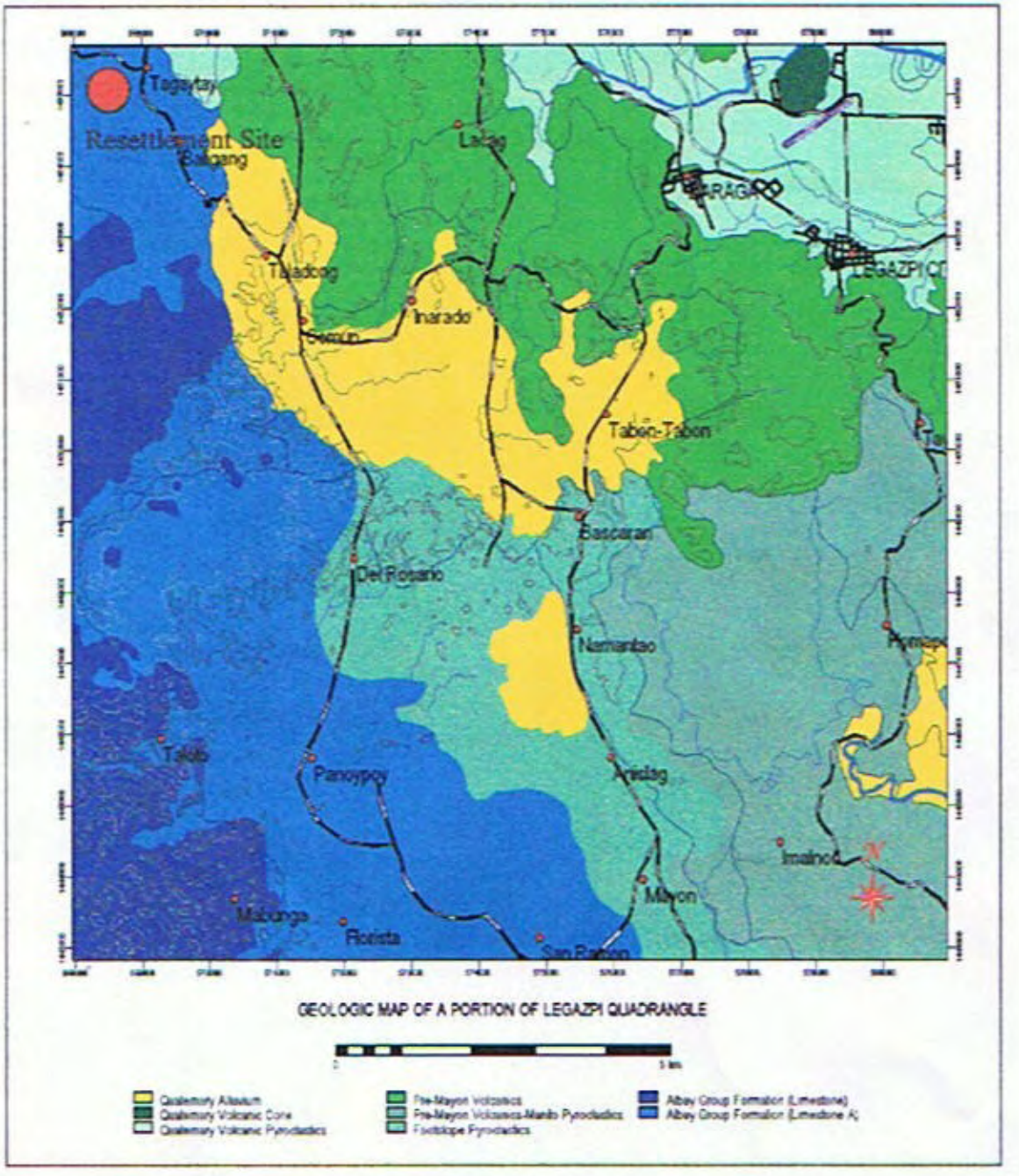


Figure 1. Geologic Map Of Albay Province

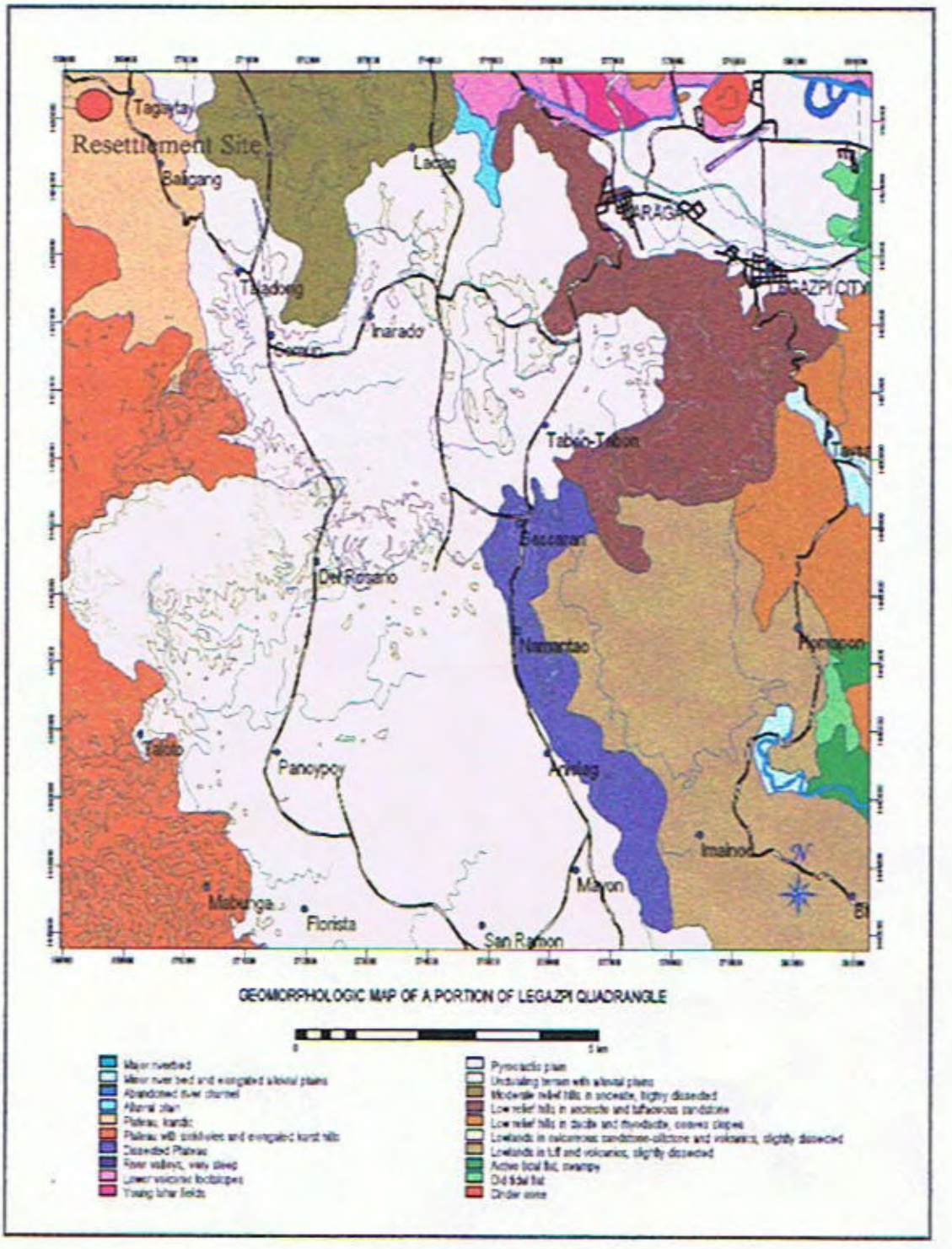


Figure 2. Geomorphologic Map of Albay Province

Figure 3. Photo of the proposed additional relocation site adjacent to the existing FVR-FNM Resettlement Site in Barangay Tagaytay, Camalig, Albay.

SURFACE WATER

In the existing FVR-FNM Resettlement Site, several earth canals was constructed and some spillways were observed to be in decrepit state and needs improvement. Minor flooding along the earth canals occurred during Typhoon Reming but it did not reach the housing area. However, improvements of earth canal structure must be conducted to avoid spillovers.

Tagaytay River is the nearest body of water to the area, however, it is located more than 500 meters downslope of the Resettlement Site. In the proposed Tagaytay Site no creeks were observed only minor depressions for natural water runoff was documented.

GROUNDWATER

Groundwater table was documented at the site using the depth of water wells dug by residents of the resettlement site. According to them they encountered water at 5 meters.

There is an existing Level 3 water facility at the FVR-FNM Site where a water tank was constructed to serve the residents. This can be extended to the new proposed relocation site.

SOILS

The site is largely underlain by brown sandy soil intercalated with thin layers of pebble size fragments of red to black scoria. This soil horizon is approximately 1.6 meters thick. Beneath this layer, the soil consists of dark brown to reddish sandy clay grading to silty clay towards bottom at 2.65 mbgs with minor intercalations of layers of pebble sized red to black scoria. The sandy to silty clay is moist and slightly plastic in character. The thickness of this layer beyond the 2.65 mbgs depth could not be ascertained since the auger drill could hardly penetrate further.

Figure 4. Sandy to silty clay sample from auger drill hole. Silty grains more dominant at bottom.

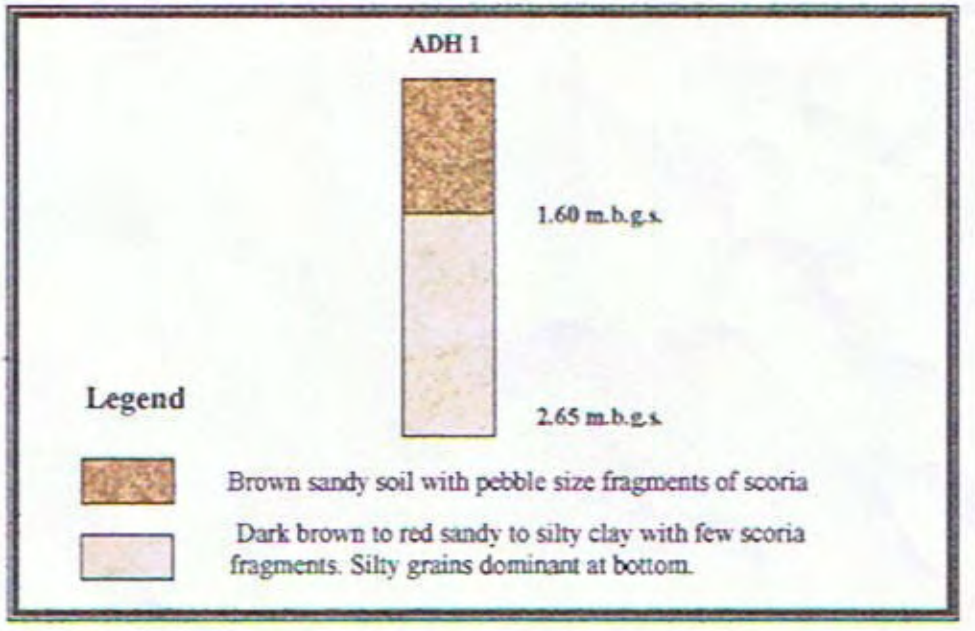


Figure 5. Description of soil sample collected from auger drill hole

GEOHAZARD

The Proposed Tagaytay Relocation Site adjoining the existing FVR-FNM Resettlement Site is situated on a plateau-like terrain. It is characterized by nearly flat to gently sloping terrain with gradients ranging from 2% - 3%. Indications of landslide were not observed in the area due to its generally flat to gently sloping terrain. However, minor landslides were observed in the road cuts constructed in the adjoining FVR-FNM Resettlement Site.

Longtime residents claimed that floods did not develop at the proposed site even during the heavy precipitation dumped by Typhoon Reming in the area. In the adjoining FVR-FNM Site, minor flooding was reported along canals but did not reach the houses near it.

The site is also situated far from the threat of volcanic debris flowpaths or lahars but it is susceptible to ashfalls emitted by Mount Mayon.

There are no active faults identified within the resettlement site. The nearest earthquake generator is the Legaspi Lineament/ Legaspi Fault. Liquefaction is remote at the site but ground shaking, as in most parts of the Country is expected to be felt for minor to major earthquakes.

CONCLUSIONS AND RECOMMENDATION

In view of the observations and findings made during the survey, the following conclusions and recommendations are given;

- The site is largely underlain by brown sandy soil and sandy clay soil intercalated with thin layers of pebbly scoria. Sandy soils generally have good bearing values. Although sandy to silty clays have poor to fair soil bearing capacity, this layer is already highly compacted and this are already part of the Sandstone-Siltstone Bedrock.

- The proposed new resettlement site is situated on a plateau-like terrain that is not prone to landslide.

- The proposed site is not prone to floods either but appropriate drainage systems should be designed and constructed at the site.

- The site is also situated far from the threat of volcanic debris flowpaths or lahars but it is susceptible to ashfalls from Mount Mayon. It is therefore recommended that house roofs be designed or constructed to accommodate accumulated volumes of ash.

- There are no active faults identified within the resettlement site and its vicinity. The possibility of liquefaction is also remote. Peak ground acceleration is estimated at 0.3 g. However, Houses must be constructed according to the Local Building Code and the National Structural Code of the Philippines.

- Finally, the proposed Tagaytay Relocation Site adjoining the existing FVR-FNM Resettlement Site is suitable for relocation.

JOSE MARCEL S. LAUD
Senior Geologist

MAURARO RESETTLEMENT PROJECT

BARANGAY MAURARO, GUINOBATAN, ALBAY

IOM : 350 UNITS

DSWD : 297 UNITS

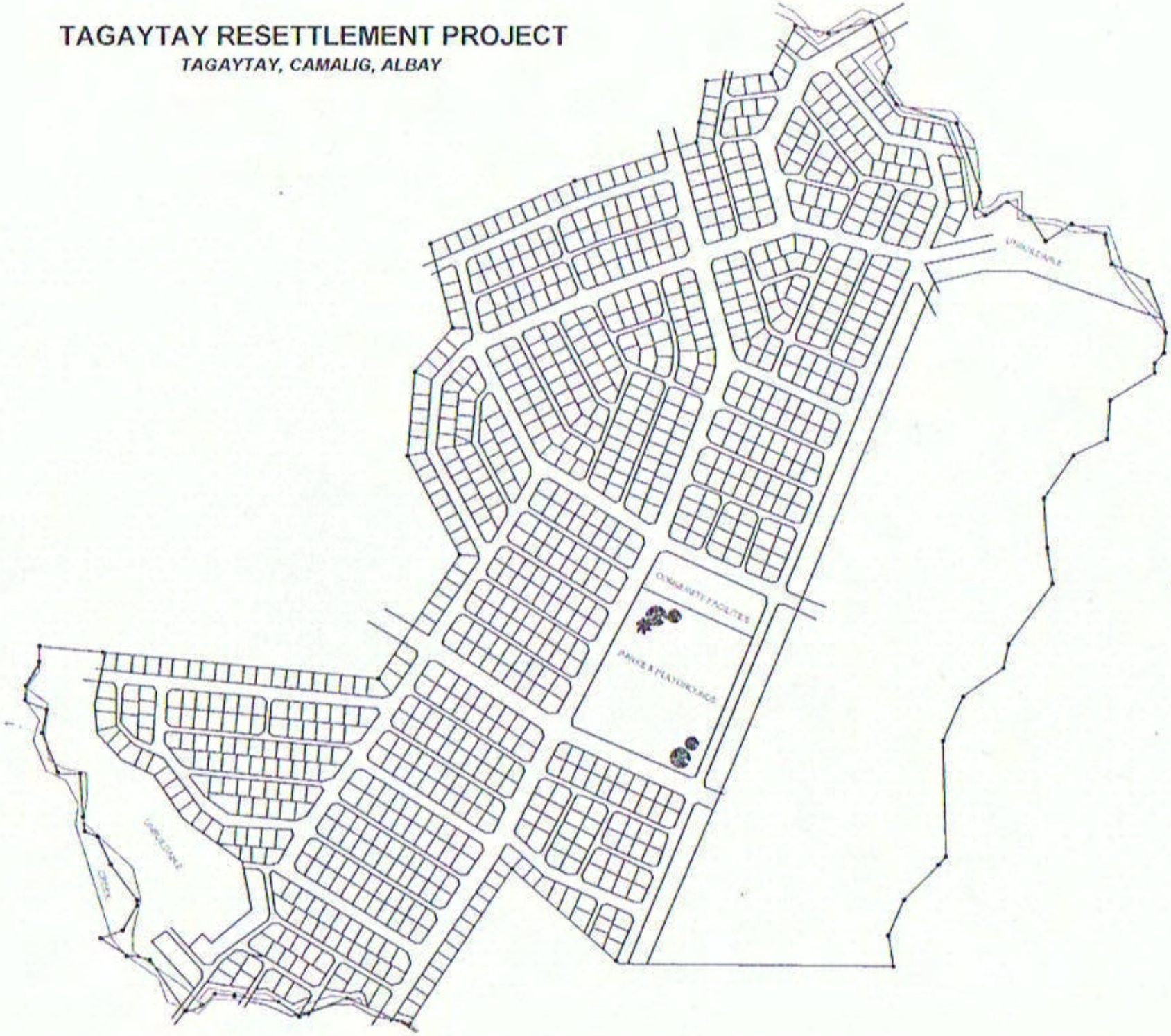
LAND USE:

RESIDENTIAL	54,947 SQ.M.
COMM. FACILITIES	900 SQ.M.
PARKS & PLAYGROUND OPEN SPACE	2,796 SQ.M.
ROADS	12,619 SQ.M.
ALLEYS	6,733 SQ.M.
EASEMENTS	3,106 SQ.M.
TOTAL AREA	80,000 SQ.M.
TOTAL GENERATED LOTS	647 LOTS

INDIVIDUAL LOT SIZE : 80 SQ.M.

TAGAYTAY RESETTLEMENT PROJECT

TAGAYTAY, CAMALIG, ALBAY



REPUBLIC OF THE PHILIPPINES
PROVINCE OF ALBAY

MUNICIPALITY OF GUINOBATAN

OFFICE OF THE MAYOR

MUNICIPAL COMMITTEE ON RELOCATION OF FAMILIES.

September 03, 2007

MS.TERESA ABANILLA
USAID Representative
IOM Sub-Office
Legaspi City

Dear Ms. Abanilla,

The selection process by criteria as classified by the committee was based on the degree of structural damage as houses totally washed-out and buried by lahar/sand/boulders of rock that resulted from the massive flooding due to Typhoon Reming last November 30, 2006. Likewise, households inside the PHIVOLOCS and MGB inspected/classified danger areas were given due recognition as parameter for inclusion in the relocation program.

Rest assured the committee will continue to do its purposely-assigned task for the benefits of the unfortunate victims of the unwanted events.

Thank you for your support and God Bless.

Respectfully yours,

MANUEL S. REALUYO MD
Vice- Chairman
MCRF

Republic of the Philippines
MUNICIPALITY OF CAMALIG
Province of Albay

LOCAL SHELTER COMMITTE

ELIGIBILITY REQUIREMENT FOR RESETTLEMENT PROJECT BENEFICIARIES

A. To qualify for the housing/resettlement program, a priority[1] beneficiary:

a) must be a bonafide resident of the barangay;
b) must be an underprivileged and homeless constituent;
c) monthly income of a family of 6 should be below the poverty threshold level based on NEDA poverty data;
d) houses should have been totally destroyed by either man-made or natural disaster and because of their limited resources prevent them from reconstructing their shelter and continue to live with relatives and or in evacuation centers;
e) no previous shelter assistance from any other agency;
f) must not own any other real property situated in non-high risk areas;

B. To qualify for the housing/resettlement program, a priority[2] beneficiary:

a) must be a bonafide resident of the barangay;
b) must be an underprivileged and homeless constituent;
c) monthly income of a family of 6 should be below the poverty threshold level based on NEDA poverty data;
d) houses should have been partially destroyed by either man-made or natural disasters; and
e) still residing at present within high risk areas of the municipality

C. To qualify for temporary shelter (transit), a beneficiary:

a) Houses are totally destroyed by either man-made or natural disasters;
b) Residing within safe areas as declared by the municipality as certified by Local Shelter Committee;
c) Must own the lot within which the housing unit will be built, if not a consent from the landowner is required.

LOURDES L. LLANA, RSW
SWO - III/
Chairperson, Relief & Rehabilitation

JOSEPHINE G. ABANSI
Municipal Planning & Development Officer/
Chairperson, Plans & Operations

Engr. ROGELIO P. NAZ, JR
Municipal Engineer
Chairperson, Engineering & Shelter

LEONORA G. MUÑOZ
Municipal Assessor
Chairperson, Validation & Assessment

HERMINIA Q. NAPIRE
Municipal Agricultural Officer
Member, Validation and Assessment

REDEN P. GRAGEDA
SB, Member
Chairperson Committee on Housing and Urban Development

VICENTE O. MOYO
Vice Mayor/
Vice Chairman

CARLOS IRWIN G. BALDO, JR.
Municipal Mayor/
Chairman

Republic of the Philippines
Province of Albay
MUNCIPALITY OF GUINOBATAN

OFFICE OF THE MAYOR

Executive Order
No. 10 Series of 2007

"AN ORDER CREATING AND ORGANIZING THE TECHNICAL WORKING GROUP (TWG) FOR THE HOUSING PROJECT IN THE RESETTLEMENT SITE OF THE MUNICIPALITY OF GUINOBATAN, ALBAY AND DEFINING ITS FUNCTIONS AND RESPONSIBILITIES".

WHEREAS, the devastation of typhoon Reming resulted in the loss of homes of more than 1,000 families, now living in Holding Centers and others have gone back to their buried residences, clearing them for use;

WHEREAS, the LGU Guinobatan is mandated to take a principal role in providing housing service to its constituents, especially those affected by the calamities, pursuant to the Local Government Code and the Urban Development and Housing Act of 1992;

WHEREAS, government, non-government and international intergovernmental organization have expressed their commitments to jointly assist the LGU Guinobatan, by providing decent housing facilities to the displaced families from Barangay Maipon, Travesia, San Francisco, Iraya, Minto, San Rafael, Ilawod, and Poblacion whose residences were totally washed-out by Typhoon "Reming" last November 30, 2006;

NOW THEREFORE, I JUAN MITRE GARCIA, Mayor of the Municipality of Guinobatan, Albay, by virtue of the powers vested in me by law, do hereby create, organize and mobilize the TECHNICAL WORKING GROUP (TWG), to wit:

Section 1. COMPOSITION

The Technical Working Group (TWG) shall be composed of the following:

Chairman	: **Hon. Juan Mitre Garcia** Municipal Mayor
Vice-Chairman	: **Mr. Tirso C. Paguio** Municipal Planning & Development Coordinator
Members	: **Dr. Manuel S. Realuyo** Municipal Health Officer **Engr. Felix O. de la Cruz** Municipal Engineer **Ms. Cristy P. Azansa** Social Welfare Officer III **Arch. Andrew Joaquin C. Abogado** Engineering Aid

Republic of the Philippines
Province of Albay
MUNCIPALITY OF GUINOBATAN

OFFICE OF THE MAYOR

Mr. Arnido O. Llamazares
Agricultural Technologist
Ms. Virginia C. Oxima-Secretary
Social Welfare Aid

Section 2. FUNCTIONS AND RESPONSIBILITIES

The Municipal Technical Working Group (TWG) is tasked to prepare all the necessary documentations, such as Memorandum of Agreement/Commitments/
Undertakings, permits, environmental certifications and other related legal documents.

Assist all donors during the implementation period of Housing Project in the Resettlement Sites.

Facilitate preparation of turn over documents of completed housing units for acceptance of LGU Guinobatan.

Section 3. EFFECTIVITY

This Executive Order shall take effect upon approval.

Done this 25 th day of July, **2007** at Guinobatan, Albay.

JUAN MITRE GARCÍA
Municipal Mayor

c.c. Provincial Governor
Sangguniang Bayan
All Constituted Members

USAID-IOM
Public Consultation
DATE: August 28, 2007
[redacted] ROTC / BU
GUINOBATAN

	NAME	SIGNATURE	DEPARTMENT
1	Jomel B Nieva		BUROTC
2	Virgil F Palaje		BUROTC
3	JAYSON P. CASULANG		BUROTC
4	Mateo A Maloon		BUROTC
5	Axel N Rovelo		BU ROTC
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USAID-IOM
Public Consultation
DATE: August 28, 2007
LGU
GUINOBATAN

	NAME	SIGNATURE	~~EVACUATION CENTER~~
1	ESTER H SONORIO		MSWDO Staff
2	VIRGINIA C. UYAMA		-do-
3	ELCY O. SERRANO		MSWD STAFF
4	Ricardo Ordiales		Brgy Capt
5	Guillermo Conales		Tagal.
6	Arnido O. Manazares		LGU
7	JAYZON ORAA		MSWD-STAFF
8	[illegible]		Mt.
9	[illegible]		Brgy. Kid
10	Steve L. Lucas - 44		P-1 Pres. Maipon
11	[illegible]		Tiwi.
12	Armando O. Francisco		Brgy. Tiwi
13	[illegible] P GRANDIA		PSWM
14	LAURO A. TRUPOCAO JR		Brgy Kag. IRAYA
15	Florante P. Aquino		MA
16	TIRSO boy PAGUIO		PLANNING
17	TERESITA H. A. MANRIQUE		Brgy. Kag.
18	JUAN M. GARCIA		Mayor
19	MANUEL S. REALUYO MD		RHU
20	ALEJANDRO O. RAPISURA PD		PDOH. TIWESIA
21	BELLA B. ALMILLA		PPDO - Albay Capitol
22	RUBEN P. OLIVARIO		SB
23	Laina O. Padua		Tondaria Brgy. Capt.
24	Jaime I Moreno		PNP
25	PO3 Al Vernon Q Cabrera		PNP - Guinobatan Albay
26	[illegible]		"
27	ECMIDIO B. PAJENGIO, SR		LGU-MENRO SR
28	RODEL H. DOMEN		Brgy Captain
29	ROSEMARY N. PADUA		PPDO - Albay
30	[illegible]		CBTS
31	BOB / BODNABOR		SB
32	~~[illegible]~~		G.B
33	SOFIA O. ORPIADA		S.B.
34	Raquel Paisa Magno		SB
35	Jane Arevalo		SB

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Public Consultation
DATE: August 28, 2007
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QUINOBATAN

	NAME	SIGNATURE	DEPARTMENT
1	ESTELA B. BARRE		DEP-Ed
2	MILWANIE OLAYRES		LGU-RHU
3	[illegible]		PCA - Hq.
4	Ma. Elena P. Sala		LGU- MAS
5	DELIA N. BURCE		LGU- MAS
6	Armido O. Manazares		LGU - MAS
7	Eva R. Remulin		LGU. OPA
8	HERCULES A. PORA		LGU
9	ELVE N. DIAZ		LGU- MBO
10	Ma. Laila O. Napay		LGU - SB office
11	MERELIS A. ORTIZ		LGU- MHO
12	Amelia Morga		LGU - MHO
13	E. B. Provido		LGU- MO
14	AMADOR K. ORLOK		LGU - MO
15	CRISTOBAL PACAIRDO		LGU - MAO
16	JOEL O. NOPIA		LGU-MARKET
17	POLICARPO F. ROSALES		L.GU. OM.
18	MA LOURDES B. CANDELARIA		LGU - MCHAT
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USAID-IOM
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DATE: August 28, 2007
LGU
GUINOBATAN

	NAME	SIGNATURE	~~EVACUATION CENTER~~
1	PRUDENCIO MARIANO		
2	Christopher O. Palerino		
3	Barbara Claire		NHA - V
4	[illegible]		PSWDO - Albay
5	FEORINA G. BANDON		NTA
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DATE: August 28, 2007
NGOs

GUINOBATAN

	NAME	SIGNATURE	ORGANIZATION
1	JEAN N. LLORIN		
2	JOY JOLHICO		USAID
3	Bryt [illegible]		USAID
4	BARNEY POPKIN		USAID
5	NANCY F OBIAS		SAVE THE CHILDREN
6	EMILIANA T. IKARE		PGA - Albay Mabulay
7	GINA B. MATAO		CWADI
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DATE: August 28, 2007
ACADEME
SUNOBATAN

	NAME	SIGNATURE	DEPARTMENT
1	MERLITA J. BADURIA		Deped
2	ROSARIO O. SARET		Deped
3	DANIEL R. SADIA		BUCAF
4	Rosie P. Llador		Deped Edtra 4
5	ESTELA P. RABE		"
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USAID-IOM
Public Consultation
DATE: August 28, 2007
IDP

GUINOBATAN

AGE		NAME	SIGNATURE	EVACUATION CENTER
55	1	Joaquim Henaresas		oval holding center
42	2	GERRY CABRIDO		OVAL HOLDING CENTER
53	3	Anita O Apuanang		Maipon
	4	BIEM L. OSABA		Outsider
36	5	Ester R. Palerino		Oval Holding center
55	6	Wilfredo Ocillo		OVAL Holding center
31	7	SANDRI C. DELOS SANTOS		OVAL HOLDING CENTER
33	8	ARNEL LABSAN		" " "
46	9	Nerita Realuyo		outsider
25	10	Mary Ann Relano		Outsider
54	11	Purita Muyuno		Oval
56	12	Sylvia P. Nonartenial		outsider Cyac.
36	13	NATALIE ORFANO		OVAL Holding Center
	14	TONY PANTOANI		MAIPON
40	15	DEXTER ODIVER	IDP	MINTU
34	16	RAUL G. OYANDA	"	"
	17	Manuel D. Mina		MAIPON
	18	FREDOLIN NICOLAS		MAIPON
	19	Romeo Opeora		MANINILA
	20	Leonardo Cruz		Mabuna
	21	MA. CECILIA P. RANADA		MAIPON
	22	Irene Astoral		
	23	Arlene Nyaite		
	24	Eulalia C. Jona		
	25	ERNESTO OLIVARIO		MAIPON
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USAID-IOM
Public Consultation
DATE: August 28, 2007
IDP
CAMALIG

	NAME	SIGNATURE	EVACUATION CENTER
1	CELIA P. NIEVA		Libod Cam. Albay
2	HERMINIA NUELO	Herminia Nuelo	Baligang Cam. Albay
3	NENY L. MUNAR		S.B. Salugan
4	Adorne Paco		SB Salugan
5	Prudencio Bolato		S.B.
6	Willy B. Grito		S.B. Salugan
7	NELVIN . BRITO		SB. SALUGAN
8	Fannie Mariano		S.B. CA
9	GINA B. ODAUAR		SB SALUGAN
10	EMILY N. RAC		Baligang
11	Virginia G. Gomez	Gomez	Baligang
12	Leny Marcosa		Baligang
13	PETER NUYES		LIBOD CAMALIG ALBAY
14	Deonisio L. Obal		S.B Salugan
15	HAYDEE A. NAPOLES		SALUGAN
16	Justiniano Morabella		
17	Beata Morabella	Beata Morabella	Sur
18	Henit S. Llanera		ILAWOD CAM. ALBAY
19	Anelma Dulce	A. Dulce	Salugan Camalig
20	Marlyn G. Balabas		SALUGAN
21	Glyn Paraiso	Paraiso	salugan
22	Winnie Dulce		Salugan
23	MERCY MINA		Salugan
24	PATRICIA H. GOMEZ		Libod
25	Jeany Rio		CNCS
26	Glinda Nocoa	L. Nocoa	CNCS
27	Joklin Rojo		CNCS
28	Gloria Nubunga	Baligang	
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USAID-IOM
Public Consultation
DATE: August 28, 2007
LGU
CAMALIG

	NAME	SIGNATURE	~~EVACUATION CENTER~~
1	Araceli G. Bantog		
2	SPO4 Celestino M Rosales Sr		
3	Barbara A. Clarino - NHA-V		
4	TEODORA G. BANDOJO		
5	EONA L. LAGUERTA		
6	~~EMMELIANA T. KAUCE~~		
7	Melita A. Fernabor		PSWDO- Albay
8	ROGELIO P. NAZ JR.		
9	Lourdes L. Llana.		
10	Herminia Q. Nagioe		
11	LETICIA G. OCROMKO		
12	JGAISANSI		
13	BELLA B. ALMILLA		PPDO - Albay
14	Elisa G. Nebres		SB-Member
15	Julito R. Rabe		
16	MAT G. NEBRES		MDCC
17	Villanueva		MO
18	Joy Jochico		USAID
19	LERMA N. CAMBA		LGU-MO
20	Delia Lorenzo		
21	Marian Navarro		GSPO Camalig
22	Leonora G. Munit		Mun. Assessor
23	Moral, Geraldine		MO
24	Hon. TUTAN MIRARAN		SB-MEDIAER
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USAID-IOM
Public Consultation
DATE: August 28, 2007
NGOs
CAMALIG

	NAME	SIGNATURE	ORGANIZATION
1	EMILIANA T. KARE	Efm	PGA - Albay Mabuhay
2	Marites L. Quismorio		DSWD FO V
3	JULIUS P. TRIHANES		DSWD - FOV
4	Eduardo Laguerta		PHIVOLCS
5	NANCY F OBIAS		SAVE THE CHILDREN
6	Bert Almilla		USAID
7	BARNEY POPKIN	B.P. Popkin	USAID
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USAID-IOM
Public Consultation
DATE: August 28, 2007
[redacted] ACADEME
CAMALIG

	NAME	SIGNATURE	~~EVACUATION CENTER~~
1	Julian M. Alibin	[illegible]	
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IOM International Organization for Migration
OIM Organisation Internationale pour les Migrations
OIM Organización Internacional para las Migraciones

Agenda for Guinubatan Public Consultation for Bicol Core Shelter and Community Revitalization Programme
(Scoping Session)
28 August 2007
9:00 am – 12:00 nn

I. Opening Ceremony

Entrance of Colours
Philippine National Anthem
USA National Anthem
Opening Prayer

I. Welcome Remarks

To be given by the Honourable Mayor Juan M. Garcia

II. Opening Remarks

To be given by USAID CTO Theresa Abanilla

III. Presentation of Objectives

To be given by USAID Deputy Mission Environment Officer Joy Jochico

IV. Presentation of Projects

1st project presentation

Project Title: *Bicol Assistance Project*
Implementing Agency: Save the Children
Presented by: Nancy Obias

2nd project presentation

Project Title: *Bicol Core Permanent Shelter and Community Revitalization Assistance Project*
Implementing Agency: International Organization for Migration
Presented by: William Sabater

V. Open Forum

VI. Closing Remarks

To be given by USAID Representative

Facilitator:
Joy Reganit-Cervas
IOM Community Development Programme Head

IOM Legaspi Sub-Office
672 University Homes Washington Drive, Legaspi City
Tel: +052.481.4182 • Fax: +052.480.6056 • Internet: www.iom.int

IOM International Organization for Migration
OIM Organisation Internationale pour les Migrations
OIM Organización Internacional para las Migraciones

Agenda for Camalig Public Consultation for Bicol Core Shelter and Community Revitalization Programme (Scoping Session)
28 August 2007
2:00 pm to 5:00 pm

VII. Opening Ceremony

Entrance of Colours
Philippine National Anthem
USA National Anthem
Opening Prayer

VIII. Welcome Remarks

To be given by the Honourable Mayor Carlos Irwin Baldo

IX. Opening Remarks

To be given by USAID CTO Theresa Abanilla

X. Presentation of Objectives

To be given by USAID Deputy Mission Environment Officer Joy Jochico

XI. Presentation of Projects

1st project presentation

Project Title: *Bicol Assistance Project*
Implementing Agency: Save the Children
Presented by: Nancy Obias

2nd project presentation

Project Title: *Bicol Core Permanent Shelter and Community Revitalization Assistance Project*
Implementing Agency: International Organization for Migration
Presented by: William Sabater

XII. Open Forum

XIII. Closing Remarks

To be given by USAID Representative

Facilitator:
Joy Reganit-Cervas
IOM Community Development Programme Head

IOM Legaspi Sub-Office
672 University Homes Washington Drive, Legaspi City
Tel: +052.481.4182 • Fax: +052.480.6056 • Internet: www.iom.int

USAID
FROM THE AMERICAN PEOPLE

IOM International Organization for Migration

PREPARED BY:

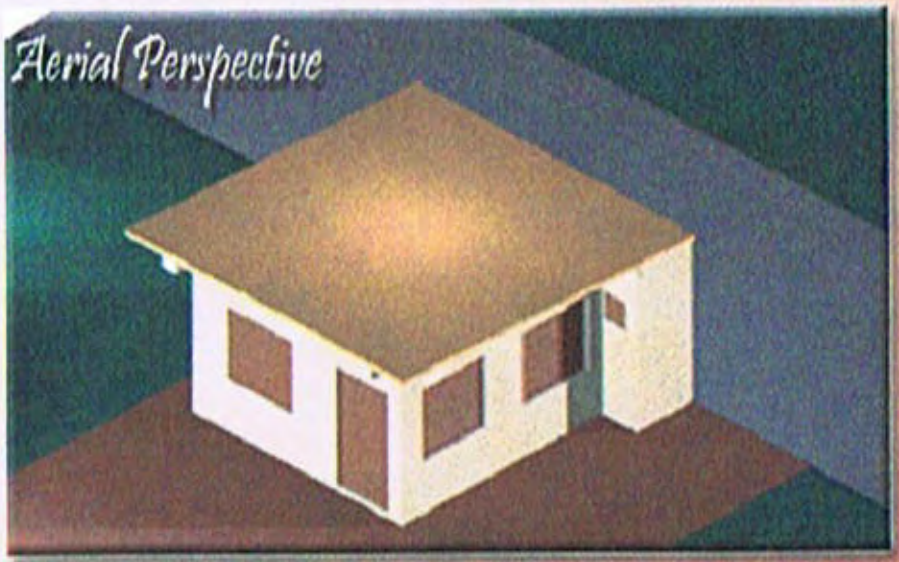
MARTIN RAY M. GARCIA
IOM Legazpi Sub-Office

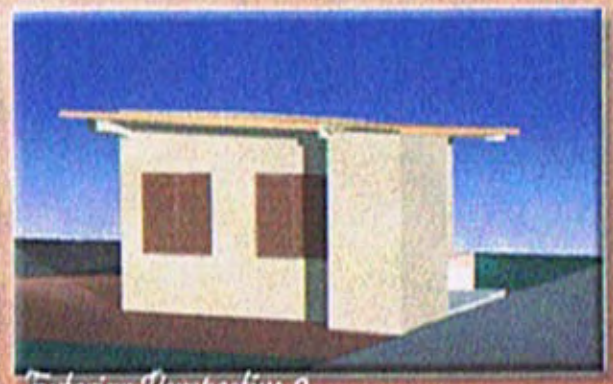
SHEET No.

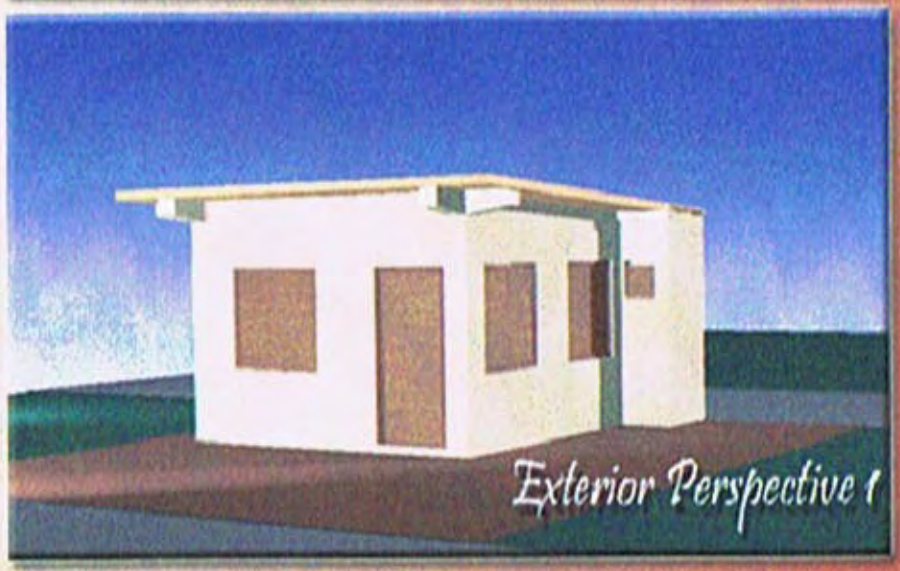
1

Annex 14

USAID FROM THE AMERICAN PEOPLE	IOM International Organization for Migration	PREPARED BY: MARTIN RAY M. GARCIA, IOM Legazpi Sub-Office	SHEET No. 2





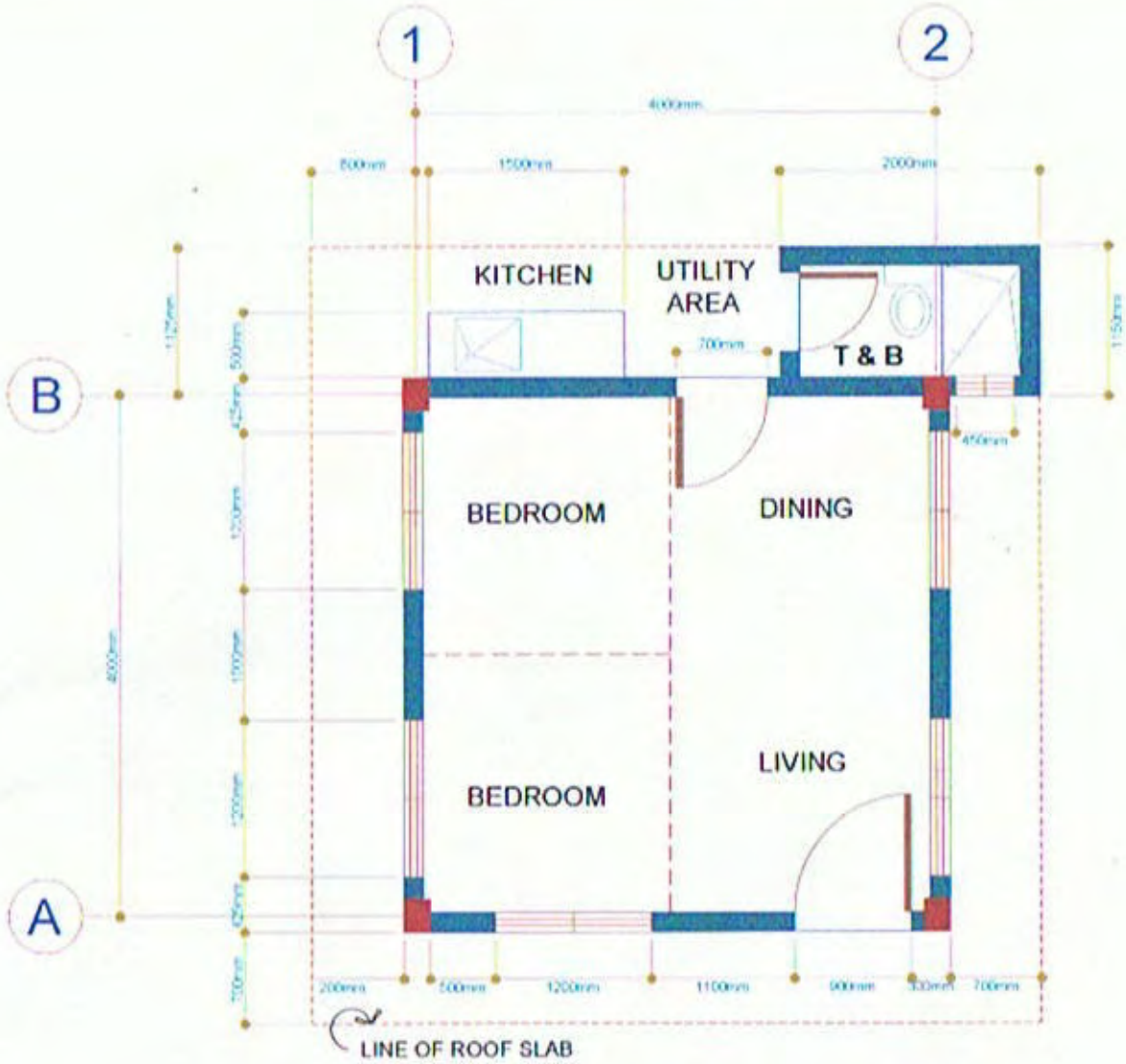


SINGLE CORE SHELTER UNIT

USAID FROM THE AMERICAN PEOPLE

IOM International Organization for Migration

PREPARED BY:	SHEET No.
MARTIN RAY M. GARCIA IOM Legazpi Sub-Office	3



FLOOR PLAN (SINGLE CORE SHELTER UNIT)

SCALE 1:40MTS

USAID FROM THE AMERICAN PEOPLE

IOM International Organization for Migration

PREPARED BY:

MARTIN RAY M. GARCIA
IOM Legazpi Sub-Office

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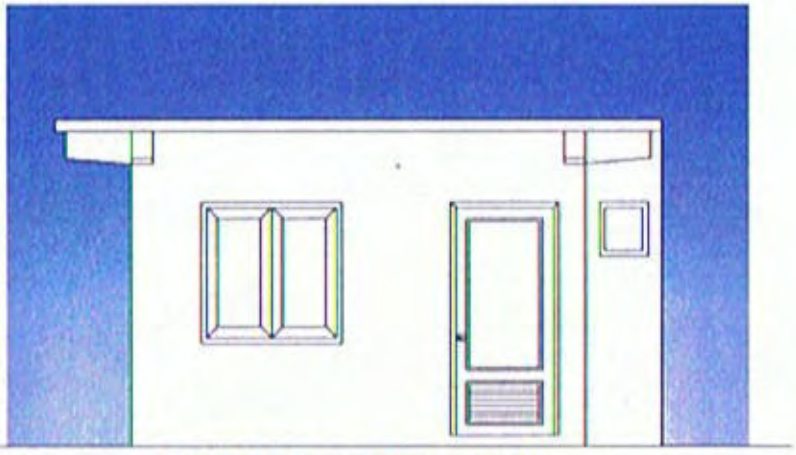

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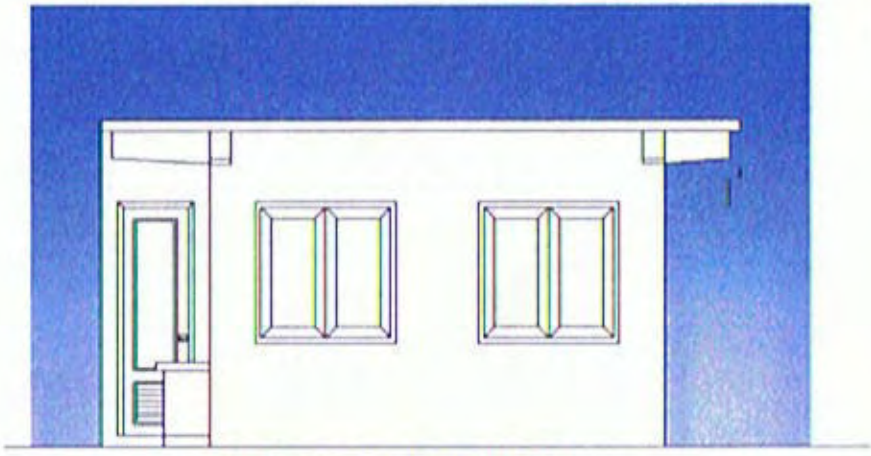

LEFT SIDE ELEVATION

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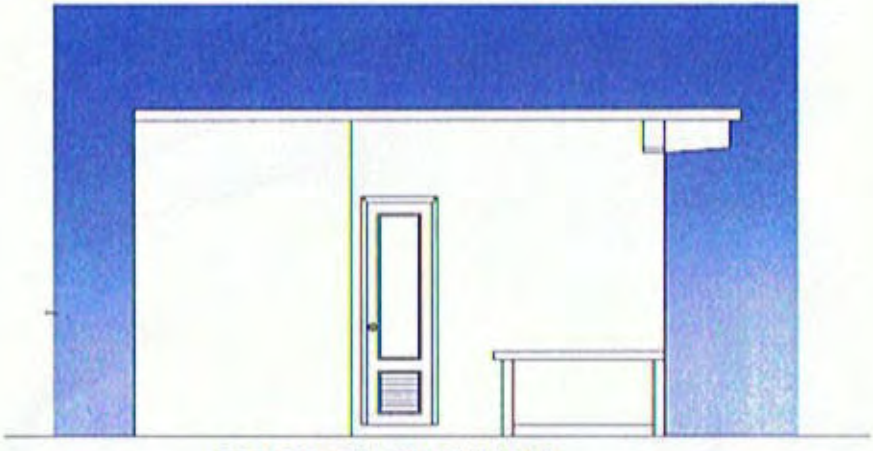

REAR ELEVATION

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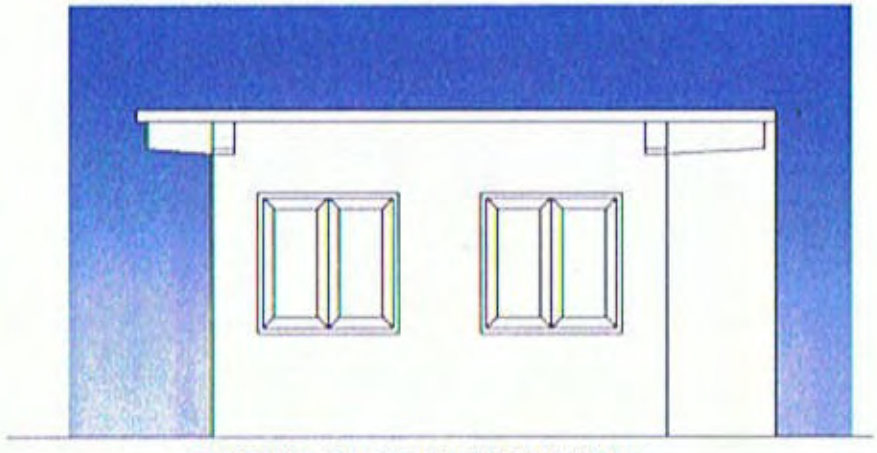


RIGHT SIDE ELEVATION

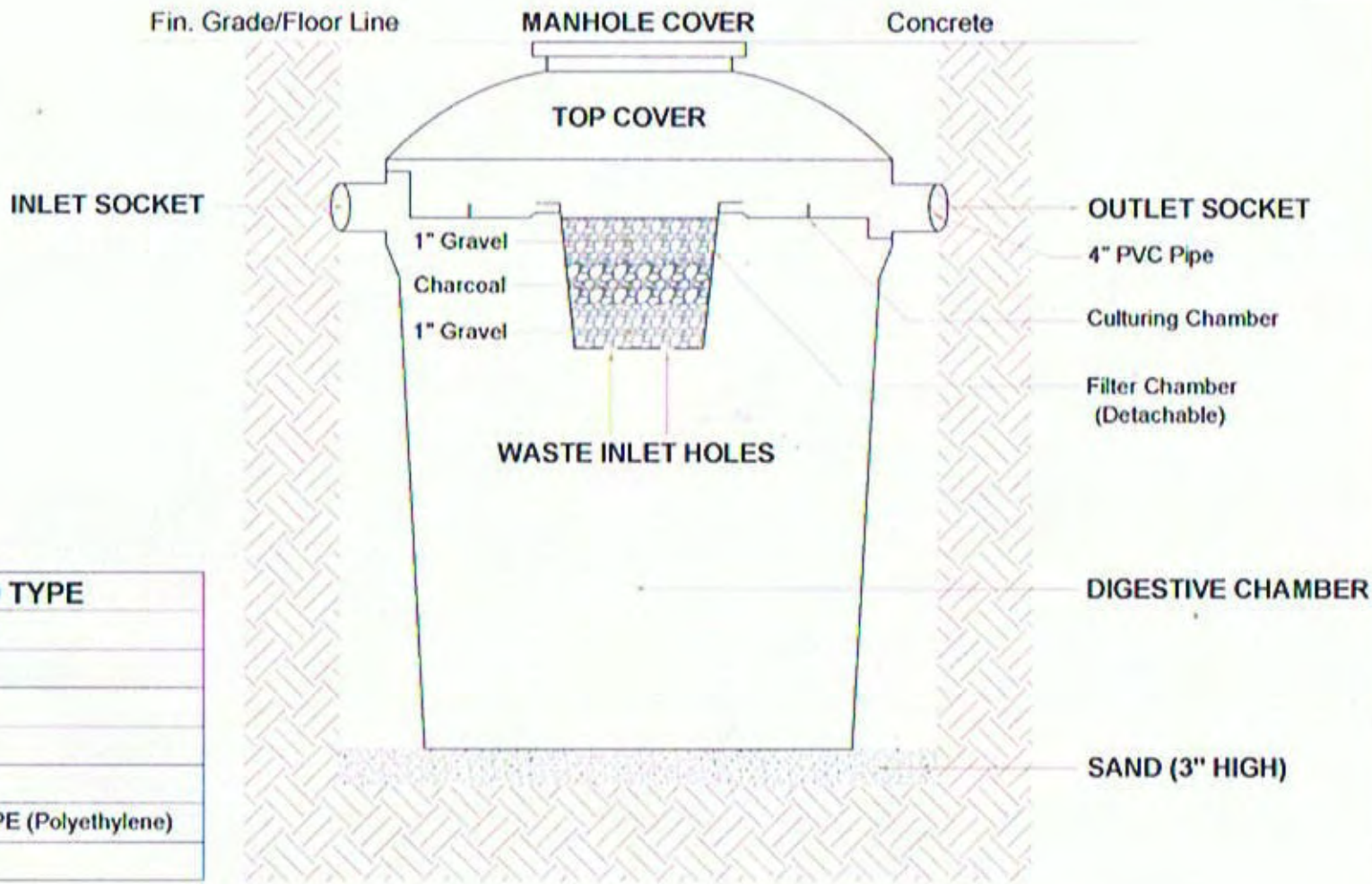
SCALE 1:40 M.

USAID FROM THE AMERICAN PEOPLE

IOM International Organization for Migration

PREPARED BY:

MARTIN RAY M. GARCIA
IOM Legazpi Sub-Office



SPECIFICATIONS:	ROUND TYPE
Capacity	7 Persons
Height	1.485 m
Diameter	1.10 m
Volume	Volume
Weight	1.0 cu.m.
Material	Recycled PE (Polyethylene)
Color	Black

DETAIL OF KOTEC 3 CHAMBER SEPTIC TANK
(ROUND TYPE)

USAID FROM THE AMERICAN PEOPLE

IOM International Organization for Migration

PREPARED BY:

MARTIN RAY M. GARCIA
IOM Legazpi Sub-Office

Annex 15

Disaster Preparedness and Emergency Assistance Project
Save the Children Foundation, Inc (SCF)
Solid Waste Management Plan of Non-Food Items
September 4, 2007

Background Information:

The beneficiaries of Save the Children Disaster Preparedness and Emergency Assistance Project are located or will be located in far and remote barangays of the project municipal sites. As such, they are not included in the garbage collection system established by the Local Government Units (LGUs), which usually serves the barangays and families in town centers where the population is dense. The LGUs usually have dumpsites for garbage collected in the covered barangays and appropriate waste management systems are usually absent or still in the planning stage.

In the project barangays in Camarines Sur, considering that the families are located in remote rural areas where there are available areas for dumping their various waste, formal and more organized waste disposal system is not in place or if there is, this is on few households' level only. Most of them also reuse most items i.e. as planters, water storage, containers or storage for any household or livelihood items, toy materials for children, waste containers, roofing support (for scrap galvanized iron sheets),as fence, wall support (for cardboard and wood scraps), etc. Those items that cannot be reused by the families are usually sold to junk buyers which buy almost everything, from plastics, metal scraps, cans, glass bottles, cardboard and paper. For those items rejected by the junk buyers and for which the families nor communities have nor further use, these are usually burned or just left to rot or disposed in any waste land available in the area but most of the time at the backyard of the household or less frequented areas in the communities.

In Albay, the relocation of 700 families in two relocation sites in Guinobatan (350 families) and Camalig (350 families) will generate various kinds of waste.

For the non-food items that will be distributed to the target 8,000 families by the SCF project, it is expected that after some time, these items will be damaged or junked and waste will be generated. Thus, this solid waste management plan will be put in place.

Solid Waste Management Plan

SCF, together with International Organization for Migration (IOM) and the LGUs of the project sites, Barangay Councils, the key leaders among the beneficiaries and other stakeholders will work together in planning appropriate solid waste management program. The 3 R's of waste management (Reduce, Reuse and Recycle) will guide the development of the plan. To enforce the implementation of the plan and that technical

support to the LGUs are provided by appropriate agencies, a Memorandum of Agreement will be signed by the LGUs, Barangay Councils, SCF and IOM and other technical support agencies at the appropriate level. The MOA will define the roles and responsibilities of each stakeholder and how the solid waste management program will be implemented, monitored and evaluated.

SCF Solid Waste Management Specific Interventions

1. Project staff, project beneficiaries, members of the barangay councils of the project barangays and staff from the LGUs involve in waste management will undergo environmental awareness and education with emphasis on the project solid waste management interventions most especially on the non-food items that will be distributed. The 3 R's of waste management as they relate to the non-food items will be discussed. The LGU representative will present the solid waste management plan or program of the LGU so that the community plan will be integrated with the overall plan of the municipality.

   The school children will have sessions on environmental awareness and education in coordination with the schools in the areas. The right of children to safe and healthy environment and their right to participate in such activities will be the take off point in this activity. Sessions with children will be in the form of drama, skit, songs and poems, drawing and poster making contest and other appropriate activities for their age. The schools, together with the Barangay Council for the Protection of Children and in coordination with the Municipal level Council for the Protection of Children and Municipal Social Welfare and Development Office will be the major stakeholders in these activities.

2. Organization of a solid waste management committee at the barangay level. The committee will be composed of a Barangay Council member in charge of the health, sanitation and environment sector, key leaders per cluster of houses, representative from the LGUs in charge with solid waste management, and schools. The committee will plan, oversee implementation, and conduct monitoring and evaluation of the solid waste management plan at the barangay level. It will also network and coordinate with appropriate municipal and other agencies and sectors for more financial and technical support to implement such plan. It will also conduct regular consultation and dialogue with all the families to secure approval of necessary ordinances and regulations related to the solid waste management plan and activities of the community, update the members of the progress of the plan and seek their support and cooperation.

   The Committee will also monitor the generation of solid waste of the community over time, set guidelines for waste reduction, and continuously update the solid waste management plan as situation changes and link with appropriate agencies for support.

3. SCF will ensure the reduction of solid waste generation by distributing non- food items that are durable, made of recycled materials as appropriate and feasible, highly reusable, high opportunities for reselling to junk buyers and have low waste disposal value. It should be noted that junk buyers at the village level resell these items to bigger junk buyers at the town centers who transport these to Manila for resell to recycling plants and other groups who demand such items.

   It will also purchase from suppliers that will agree to package the non-food items using the least possible packaging materials, the use of recycled packaging materials, use of packaging materials that are reusable, can be sold to junk buyers, and less harmful to the environment.

4. SCF will conduct sessions with all the beneficiaries on how to properly use and maintain the functionality of the non-food items so that these items will serve its purpose longer. Trouble shooting and safe home remedies of some items that needs repair like the cooking stove, emergency light and cooking set will also be provided. For those beneficiaries who may not be confident to repair these items, the project will screen beneficiaries who are interested to learn the needed skills and provide them training or if among the beneficiaries, there are those who have the skills already, opportunities will be provided for establishing a repair center in the village. Thus, the project will also provide opportunities for additional income generation for some of those who will engage in such activities.

5. The project will conduct barangay level sessions with all beneficiaries on more creative ways of reusing the non-food items once they are broken and beyond repair. During the session, a contest among the beneficiaries on 101 ways to reuse the non-food items will be launched for everybody to learn from each other and apply their learnings once their items are broken.

   The school children will also participate by asking them to join the contest on 101 ways to reuse the non-food items through drawing, poster making contest, singing and through poems during the annual environment month celebrated in June in all schools. A committee with the schools and barangay councils and beneficiaries will be organized to spearhead the activity with support from the project staff. The winning entries will receive token rewards and opportunities for their entries to be in posters displayed in the multi-purpose center that will be constructed by the IOM project or barangay hall for everyone's education and to sustain the advocacy effort.

   The sessions will also emphasize on the possible and environmental effects of reusing harmful items i.e. .pesticide and hazardous household chemicals containers.

   The possible reuses of some non-food items to be distributed by SCF are as follows:

   - Pail for water storage - hamper for clothes, storage for rice, dried corn or vegetable seeds, storage of children's toys or school materials and supplies, and

later on once it gets more damaged, as planter for vegetables, herbs or ornamental plants

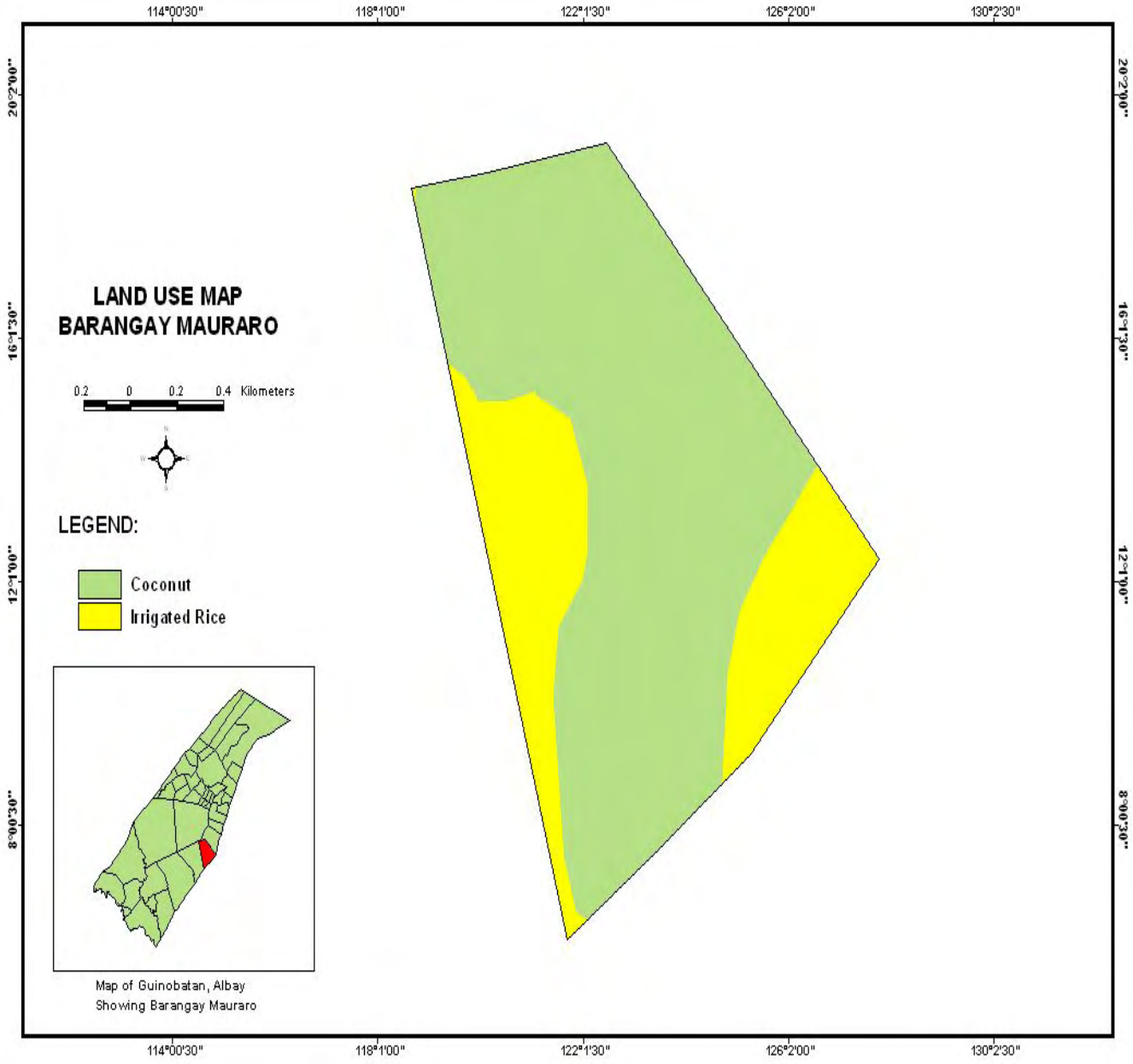
- Water jug with faucet - the same as above
- Mosquito net - as laundry and dishwashing pad, floor cleaning rug, net to protect their vegetable gardens from insects and roaming animals
- Mat - as roof in their laundry area either in their house extension or when doing the laundry in the nearby creek or river, door mat, wrapping other bulky household items
- Cooking set – as planters, storage of dried seeds or food items, food cover, water storage cover

6. For those non-food items that are beyond reuse and repair, the Solid Waste Management Committee will designate appropriate guidelines for its collection, segregation, and resell to junk buyers.

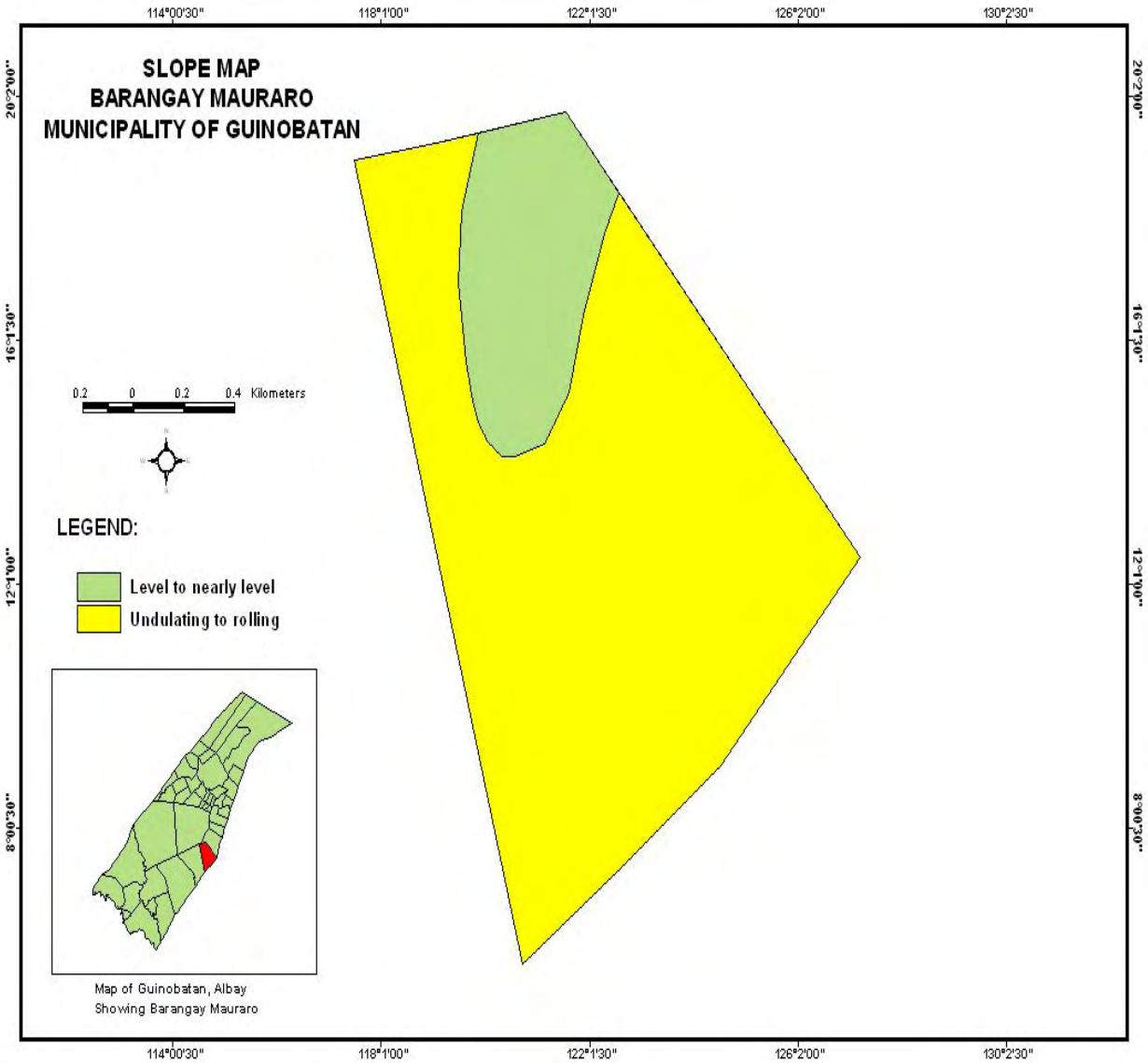
For those that will be sold to junk buyers, the collection of such items and reselling them in volume will command higher prices than if sold on an individual basis. The Solid Waste Management Committee, in consultation with beneficiaries, will further study the feasibility of this action based on the volume of items being disposed at certain time and the availability of buyers on volume basis.

7. The Solid Waste Management Committee, together with key leaders and LGU representative, will further explore possibilities of recycling non-food items, come up with feasibility studies, generate support and source funding for its operation and implement such activity. Priorities for recycling are those non-food items and other household wastes that are produced in large quantities and when technically feasible and cost effective strategies are available to pursue.

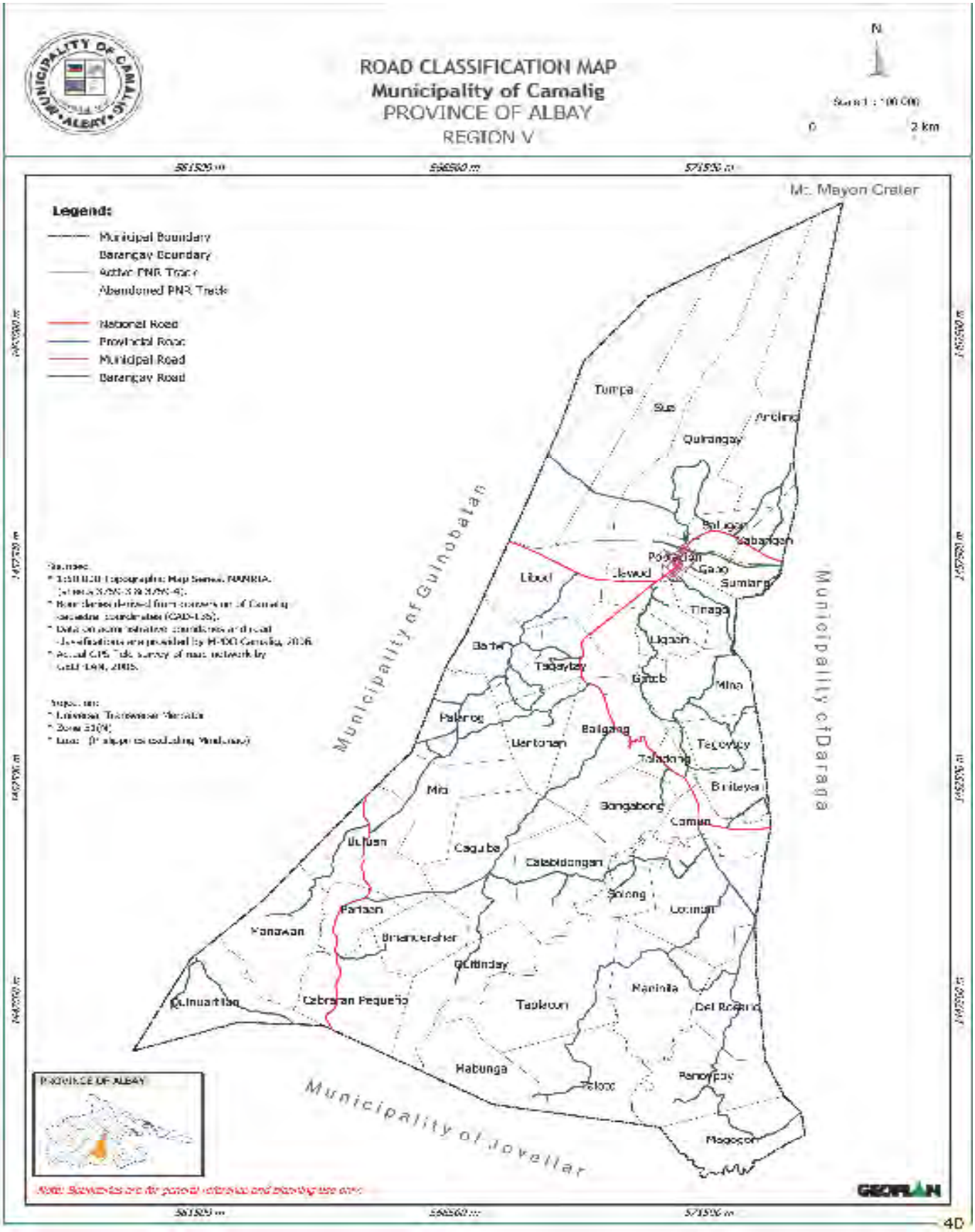
ANNEX 16


114°00'30"
118°1'00"
122°1'30"
126°2'00"
130°2'30"
20°2'00"
16°1'30"
12°1'00"
8°0'30"
LAND USE MAP
BARANGAY MAURARO
0.2 0 0.2 0.4 Kilometers
LEGEND:
Coconut
Irrigated Rice
Map of Guinobatan, Albay
Showing Barangay Mauraro

ANNEX 16A


SLOPE MAP
BARANGAY MAURARO
MUNICIPALITY OF GUINOBATAN
114°00'30"
118°1'00"
122°1'30"
126°2'00"
130°2'30"
20°2'00"
16°1'30"
12°1'00"
8°00'30"
0.2 0 0.2 0.4 Kilometers
LEGEND:
Level to nearly level
Undulating to rolling
Map of Guinobatan, Albay
Showing Barangay Mauraro

ANNEX 16B


ROAD CLASSIFICATION MAP
Municipality of Camalig
PROVINCE OF ALBAY
REGION V
N
0
2 km
Mt. Mayon Crater
Legend:
Municipal Boundary
Barangay Boundary
Active PNR Track
Abandoned PNR Track
National Road
Provincial Road
Municipal Road
Barangay Road
Municipality of Guinobatan
Municipality of Daraga
Municipality of Jovellar
Tumpa
Sua
Quirangay
Libod
Tinago
Ligao
Gaba
Mina
Paleros
Bariw
Bonga
Camalig
Ulusan
Cagsiay
Pariaan
Manawan
Quinuartilan
Cabraran Pequeño
Tapiquin
Habunga
Panoypoy
Magogon
PROVINCE OF ALBAY
GEOPLAN
4D

ANNEX 16C

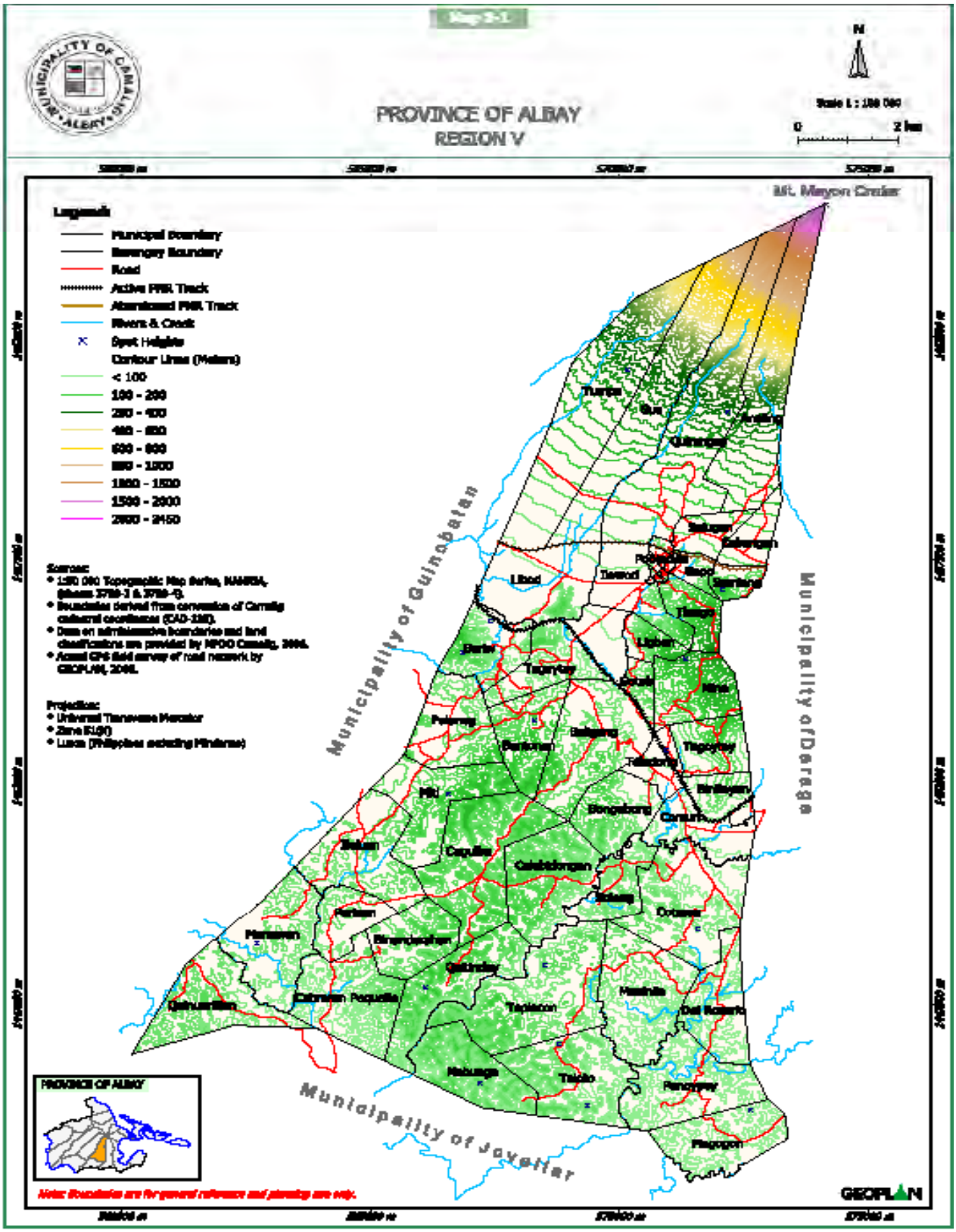
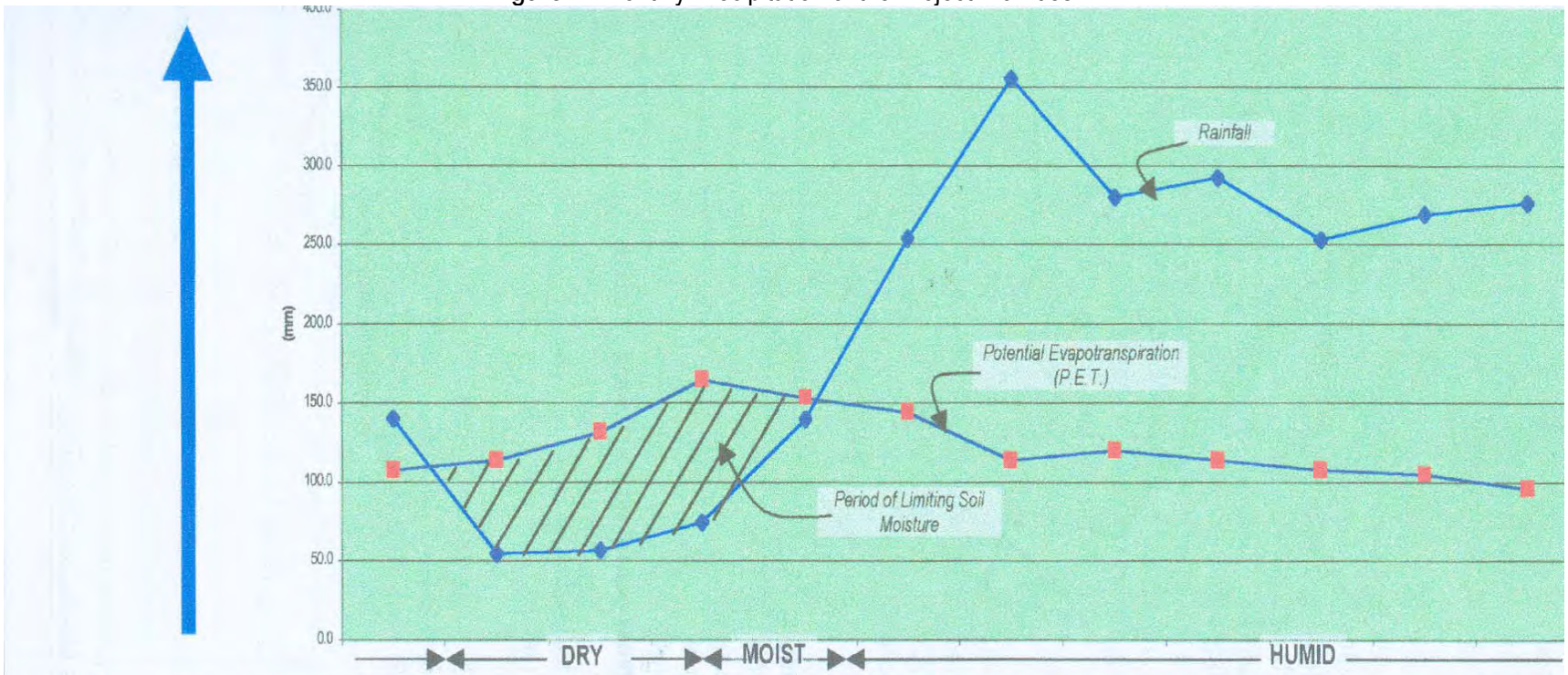

PROVINCE OF ALBAY
REGION V
N
Mt. Mayon Crater
Legends
Municipal Boundary
Barangay Boundary
Road
Active PNR Track
Abandoned PNR Track
Rivers & Creek
Spot Heights
Contour Lines (Meters)
< 100
100 - 200
200 - 400
400 - 600
600 - 800
800 - 1000
1000 - 1500
1500 - 2000
2000 - 2450
Municipality of Guinobatan
Municipality of Daraga
Municipality of Jovellar
Libod
Tamaot
Tiwala
Bacal
Tagoytay
Mi
Bongabong
Calzadilla
Calabidongan
Tabon
Tanjacon
Malabog
Tiaong
Panoypay
Pagcolan
PROVINCE OF ALBAY
GEOPLAN

Figure 4. Monthly Precipitation of the Project Vicinities.



MONTH		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
RAINFALL:	Average (mm)	140.5	55.0	57.0	74.5	140.0	254.5	355.5	280.5	292.5	253.5	269.5	276.5
	Minimum (mm)	36.6	14.7	12.0	20.9	40.8	76.7	93.4	64.8	59.6	64.6	88.0	67.3
	Maximum (mm)	294.5	155.0	116.8	181.1	206.0	438.8	563.4	531.5	394.2	469.3	450.2	492.5
COMPUTED P.E.T. (mm/day)		108	114	132	165	153	144	114	120	114	108	105	96
AVE. NO. OF RAINY DAYS		14	10	9	9	12	16	19	19	20	21	22	23
TEMPERATURE (deg C)		25.2	25.5	25.8	27.0	27.6	28.0	27.0	27.2	27.1	26.5	26.3	25.6
MEAN SUNSHINE (hr/day)		5.7	6.5	6.2	8.6	7.5	6.8	4.3	4.6	4.2	4.3	5.3	5.4
RELATIVE HUMIDITY (%)		84	83	82	82	82	83	84	84	85	85	85	86
PREVAILING WIND:													
	SPEED (m/sec)	16	19	14	13	10	11	6	6	10	11	13	12
	DIRECTION	NE	NE	NE	NE	SE	SE	SE	SE	SE	SE	SE	SE

Note: Northeast Monsoon influences the months of June to October, and the Southwest Monsoon prevails from November to February

Sources: PCA-Agricultural Research Branch, and Bicol University College of Agriculture and Forestry Weather Sub-stations, Guinobatan, Albay

Programmatic Environmental Assessment Presentation

6 September 2007

	Name	Agency
1	Emiliana T. Kare	PGA - Albay Mabuhay TF
2	CHRISTOPHER O. PAREDES	LGU- GUINOBATAN
3	[illegible]	[illegible]
4	TIRO C PAGUIO	LGU - Ligao
5	Barney P. Popkin	USAID-Washington, DC
6	NANCY F OBIAS	SAVE THE CHILDREN
7	JOY JOYNER	USAID
8	Arlene E. Vargas	Mines & Geosciences Bureau DA
9	EDUARDO P. [illegible]	PHIVOLCS
10	GILBERT C. GONZALES	EMB 5
11	ANTHONY L. VIÑAS	EMB 5
12	Emman Ladines	IOM
13	JOY R. [illegible]	IOM
14	Geoffrey E. Sa-ong	IOM
15	REX ALBINGAN	IOM
16	MARILOU N. LACUNA	DRRM, ROV, Lg city
17	JOSEPHINE G. ABANSI	MVDC - MPDO Camalig Albay
18	Lourdes L. Llana	MSWDO - LGU - Camalig, Albay
19	JOANNA DAGAO	IOM
20	WALLY SABATER	IOM
21	DERRICK PIMENTEL	IOM

Republic of the Philippines
PROVINCE OF ALBAY
Legazpi City

Office of the Governor

Y SARTE SALCEDA
Governor

EXECUTIVE ORDER NO. 2007- 02

Adopting "Albay Mabuhay" as the Provincial Flagship Program of the incumbent administration towards economic modernization of the Province of Albay and creating the Albay Mabuhay Task Force.

WHEREAS, the Province of Albay is geographically situated in typhoon belt and graven image between the Philippines Deep in the East and Philippine Fault Zone on the West. Furthermore, Mayon Volcano is a constant threat to the surrounding population who are exposed to cyclical hazard events. There are also seven major river systems originating from Mayon Volcano namely: Yawa, Quinali A, Quinali B, Bulawan, Basud, Padang and Arimbay with a total of 225 rivers/creeks' tributaries that contribute sporadic flooding to local communities all over the province. These hazard events created social dislocations as well as economic and environmental disruptions;

WHEREAS, the past super typhoons devastatingly ravaged Province of Albay resulting to severe destruction of farmlands and infrastructures including properties covered by pyroclastic debris unleashed by floods from Mayon Volcano gullies and claimed the lives of about a thousand unfortunate victims;

WHEREAS, relief and rehabilitation undertakings had been started and are on-going through the initiative of the national and local government agencies via ***Ayuda Albay*** Relief and Rehabilitation Program; and supported by the private sector, foreign government agencies, international organizations, non-government organizations, business groups, civic and religious organizations and private individuals;

Priority II – This shall cover other areas within the Albay Province affected or threatened by any form of calamity or hazard.

Section 4. Key Areas and Components as listed below are the focus of rehabilitation improvements and establishment of support facilities and amenities.

a. ***Shelter and Relocation*** – Social Preparation; Land Acquisition; Land Development; House Construction; Provision of Livelihood and other Support Facilities

b. ***Water, Sanitation, Health and Nutrition*** - Supplemental Feeding; Rehabilitation Support to District Hospitals, Municipal and Barangay Health Stations, Provision of Health Insurance Coverage to Indigents.

c. ***Food Security, Livelihood and Economic Opportunities***- Allocation of Rice and Vegetable Seeds; Rehabilitation Support to Farmlands, Fisheries, Livestock, Irrigation Facilities, Training and Livelihood Centers and Amenities, Post-Harvest Facilities, Farm Implements and Inputs; Product Development and Marketing. This shall include the socio-economic development in the four (4) islands of Cagraray, Rapu-rapu, Batan and San Miguel.

c. ***Education*** – Scholarship to Indigent Students, Human Capital Formation; Provision of Instructional Materials and other Amenities; and Repair of School Buildings and Day Care Centers.

d. ***Evacuation and Camp Management*** – Land Preparation; Provision of Temporary Shelters; Provision of Potable Water Facilities and other Utilities, Medicines and Medical Treatment at Camp Sites;

e. ***Psychosocial and Child Care Support*** – Stress Debriefing on and off Camps, Provision of Amenities, Children's Corner and / or Session Room.

f. ***Geo-strategic Integration*** – Recommendation of Investment Zones, Plans and Natural Resource Management Strategies; Rehabilitation of Infrastructure and Public Utilities; Hazard Assessment; and Mitigation Strategies.

g. ***Logistics*** – **Provision** of Vehicle to PNP Municipal Stations; Provision of Communication Facilities to Remote Areas; Availability of Emergency Transport Services at Strategic Areas; Warehousing of Donated / Purchased Items.

h. ***Environment and Tourism*** – Watershed Rehabilitation, Coastal Reforestation, Eco-tourism Development (On Site and Off Site), Environmental Protective Measures, Policy Formulation.

Section 5. Organization and Composition. "Albay Mabuhay Program" shall be implemented by Albay Mabuhay Task Force (AMTF), which is herebay created as a coordinating body headed by the incumbent Governor as Overall Chairman and to be, composed of three composite groups, namely: (1) Government Sector from the national, regional and provincial levels whose regular functions are relevant to the projects and activities under Albay Mabuhay Program; (2) Cooperating Agencies from private sector whose primary role in Albay Mabuhay Program is to provide assistance, whether technical, structural, facilities, equipment, financial and/or manpower; and (3) Beneficiaries the local communities, both the Local Government Units down to the Barangay level and its Line Agencies and the Parishes as recipients of the assistance under the Albay Mabuhay Program.

The Private Sector shall include all non-government organizations, both local and international, business, civic and religious groups and private individuals who shall signify assistance through provision of resources and/or in the implementation of projects and activities.

Steering Committee. The Albay Mabuhay Task Force Steering Committee is hereby organized to be chaired by the incumbent Governor; co-chaired by the Head of Albay Public Safety and Emergency Management Office (APSEMO) and with the Head of all Clusters enumerated as follows:

Clusters:

1. Shelter and Relocation
2. Water Health Sanitation and Nutrition
3. Food Security, Livelihood and Economic Opportunities
4. Education
5. Evacuation and Camp Management
6. Psychosocial and Child Care Support

7. Geo-Strategic Integration
8. Logistics
9. Environment and Tourism

A ***Secretariat*** shall be formed as component of the Albay Mabuhay Task Force. It shall be composed of a Program Coordinator, as its head. Staff to extend support shall be the following: Secretary, Project Development Officer, Researcher, Liaison Officer, Computer Encoder, Clerk, Messenger and eight (8) Community Organizers.

Section 6. Membership of Clusters. Albay Mabuhay Task Force shall be grouped into clusters to be chaired by the Head or authorized representative of departments/offices or agencies concerned and whose membership shall not be limited to the agencies enumerated hereunder. APSEMO shall automatically be a member of all clusters and a documentor shall be appointed among themselves.

Shelter and Relocation:
Cluster Head – PSWDO
Members - PPDO, NHA, PSWDO, HLURB, HUDCC, DPWH, INGOs/NGOs

Water, Health, Sanitation and Nutrition
Cluster Head- PHO-DOH
Members - PEO, BFP, PNRC, Water Districts, INGOs/NGOs

Food Security, Livelihood and Economic Opportunities
Cluster Head - PAS
Members - PVS, PCDO, DTI, DOST, TESDA, NEDA, BFAR, PCA, FIDA, DAR, DSWD, PSWDO, INGOs/NGOs

Education
Cluster Head - DepEd
Members - PSWDO, PHO, PNP, NGO/INGOs

Evacuation and Camp Management
Cluster Head - PSWDO
Members - PHO, DepEd, PNP, PEO, DPWH, AFP ENGINEERING, PGSO, OCD, PNRC, INGOs/NGOs

Psychosocial and Child Care Support

Cluster Head - PHO
Members - PSWDO, PNP, DepEd, NGO/INGOs

Geostrategic Interventions

Cluster Head - PPDO
Members - PEO, ENRO, MGB, PHIVOLCS, NEDA, DAR, INGOs/NGOs

Logistics

Cluster Head - APSEMO / PGSO
Members - OCD, PNRC, PIA, PNP, AFP, PN, DPWH, NGOs/INGOs

Environment and Tourism

Cluster Head - PTCAO
Members - ENRO, PPDO, PEO, EMB, INGOs/NGOs, DENR, DOT

Section 7. Functions and Responsibilities

Steering Committee. Shall act as plan formulator and policy-making body of the Albay Mabuhay Task Force and decide on strategic matters, directions, structure, implementation procedures and evaluation of programs and projects.

Secretariat shall perform functions such as but not limited to the following:

1. Collect and collate data from clusters.
2. Validate reports from clusters and other informants.
3. Review proposals from clusters and other organizations prior to submission to the Office of the Governor for endorsement to funding donors.
4. Refer to cluster concerned requests from individuals, organizations, Local Government Units and other entities for their action/intervention.
5. Access funds through the Provincial Government.
6. Allocate resources generated.

7. Organize and arrange meetings of the Albay Mabuhay Task Force, the Steering Committee and each Cluster.
8. Document all discussions during meetings.
9. Monitor and evaluate project through impact assessments.
10. Provide reports to the Office of the Governor and the funding donor(s).
11. Perform such other functions relevant to the realization of each particular project or activity.

Clusters shall perform functions such as but not limited to the following:

1. Assessment of needs.
2. Identification of projects, site and beneficiaries.
3. Formulation of project proposal.
4. Implementation of projects.
5. Submission of formative and summative reports to the Secretariat.

Section 8. Meetings. The regular meetings of the Steering Committee shall be held every 1st Wednesday of the month at 1:30 in the afternoon or may be agreed upon by the members. Venue will be announced prior to the conduct of every meeting. Meetings of the Task Force, General Assembly as well as Clusters shall be held whenever requested as the need arises.

Section 9. Monitoring. A tracking system shall be installed on computer hardware and designed on paper in order to monitor the flow of data and resources. It shall reflect the itemized activities as planned and as implemented based on time duration as well as physical and financial accomplishments.

Section 10. Fund Sources. "Albay Mabuhay" Program shall access funds and resources from internal and external sources. Implementation of projects and activities shall be based on the Terms of Reference and other implementing guidelines required by the Donor.

Section 11. Trust Fund. All donations / contributions to Albay Mabuhay rehabilitation program shall be deposited to the Trust Fund inclusive of Philippine currency, US Dollars and Euros.

BANK ACCOUNT

Name of Bank	: LAND BANK OF THE PHILIPPINES
Branch	: Legazpi City Branch, Legazpi City
Account Name	: Provincial Government of Albay
Account Number	: 0132-0137-80
Type of Account	: TRUST - CALAMITY

Section 12. Remuneration. Cluster Head and Members shall not be entitled to additional pay. The services they render shall be considered part of the regular functions and responsibilities they perform in their respective agencies. Traveling and other incidental expenses are reimbursable according to government accounting and auditing rules and regulations.

Section 13. Repealing Clause. This Order repeals and supersedes Executive Order No. 2007-01 entitled: "Creating the Ayuda Albay Coordinating Task Force and Secretariat."

Section 14. Effectivity. The Executive Order shall take effect on ____ July 9, 2007.

JOEY SARTE SALCEDA
Governor

722 Sampaguita St., Adela Subdivision, Cagayan de Oro City, Philippines
Mobile Phone. +639213259106
Landline Phone: 08822711661
Email: rexalamban@gmail.com

Rex Arnold P. Alamban

Professional Experience

November 2005 – Mar 2007 **International Organization for Migration**
MRF Islamabad
Earthquake Emergency Operations
Pakistan

Field Coordination Officer (Feb 06 – Mar 07)

- Responsibilities include the coordination of Sub-Offices in the five humanitarian hubs of the earthquake-affected areas of Pakistan; Coordination and project management of IDP Assistance Programmes, including IDP registration in camps, IDP Assisted Returns, and liaison with partner agencies in the relief of IDPs.
- Temporarily was deployed to the Philippines to set up field operations in Legazpi City in response to the Mayon Volcano Emergency and the super typhoon Melenyo and Reming Emergency from August 2006 to December 2006.

Head of Sub-Office/Shelter Cluster Coordinator-Muzaffarabad Humanitarian Hub (Nov 05 – Feb 06)

- Responsibilities included the management of the IOM field office in Muzaffarabad for the relief of Earthquake Affected population in the Muzaffarabad District.
- This included the admin-finance functions and management of operations involving shelter kit distribution (Winter Race in the AOR), Disaster Rapid Response Team, Logistics and Commodities movements.
- Emergency Shelter Cluster Coordination was another major responsibility to ensure complementarity, equity and maximum coverage of identified emergency shelter needs in the affected communities by all relief organizations providing emergency shelter assistance in the AOR.

January – May 2005 **International Organization for Migration (IOM)**
Colombo Mission
Sri Lanka

Operations Officer

- Assisted in the construction of emergency shelters for families displaced by the Dec. 26, 2004 Tsunami in Matara Sub-Office.
- Organized the Camp Care and Maintenance Workshops for IDPs in the camps and drafted the Camp Care and Maintenance Workshop Manual used in all the camps supported by IOM in Sri Lanka.
- Subsequently, assisted the sub-offices in the initial implementation of the Emergency Livelihood Restoration Programme as Roving Technical Advisor for the entire Tsunami Affected Areas.

June – November 2004 **Xavier University**
Cagayan de Oro City Social Involvement Office
Philippines

Advocacy Project Officer

- Officer in Charge of the Advocacy Program of the of the Xavier University social Involvement Program. Responsibilties included mass education, media advocacy, and coalition-building with local civil society organizations. Implemented advocacy activities for social development and good governance among the studentry, and among the greater city population through media and linkaging with civil society organizations.

2003 – 2004 **International Organization for Migration (IOM)**
Erbil
Iraq Mission

Head of Liaison Office

- Responsible for Liaison and Coordination functions with agencies involved in Internally Displaced Persons (IDP) Assistance in the three Northern Governorates of Iraq, mainly with UNOPS IDP, UNOHCI, UNHCR, HABITAT and the IDP Liaison Office of the Kurdish Regional Government.
- Coordination with IOM Sub-Offices in the rest of Iraq, which needed to share information and resources with the above-mentioned agencies based in Erbil
- Served as IDP Programme Focal Point for the Central Region comprising the Governorates of Mosul, Tikrit and Kirkuk. Supervised project implementation on the ground including winterization activities, community quick impact projects and monitoring of population movements.
- Field Office Administration and finance management
- Management and supervision of up to 18 office and field staff

2001-2003 **International Organization for Migration**
Kunduz
Afghanistan Mission

Head of Sub-Office

- Responsible for the Management of In ternally Displaced Persons (IDP) Camps in Kunduz Province with approx. 40,000 IDP population
- Facilitate Inter-agency Coordination of Humanitarian Assistance for IDPs in Kunduz Province, IOM was the provincial lead agency for IDP Assistance
- Management of Returns Operations and Reintegration Programme for Afghan IDPs and Refugees in the Northeast Region, approx. 40,000 IDPs returned.
- Implementation of USAID Funded Af ghan Transition Initiative (ATI) Programme in Northeast Afghanistan, a community rehabilitation and democratization programme for post-conflict communities.
- Field Office administration and finance management
- Management and Supervision of up to 50 office and field staff

2000-2001 **International Organization for Migration**
Skenderaj and Prizren
Kosovo Mission

Head of Sub-Office

- Implementation of Demobilization and Reintegration Programmes for Former KLA Combatants in Drenica and Prizren Regions (ICRS/KPC Programmes). Approx. 6,000 total ex-combatants beneficiaries.
- Supervision of Returns Operations and Reintegration programme for Kosovar Refugee Returnees
- Administrative Support to Programme s based in the Sub-Office, i.e., Medevac, Kosovo Transition Initiative (USAID), Kosovo Information/Internet Center, Kosovo Protection Corps Training Programme.
- Field Office administration and finance management
- Management and Supervision of max. 45 office and field staff

1999-2000 **International Organization for Migration**
Ferizaj
Kosovo Mission

Community Development Specialist

- Project Officer for Demobilization and Reintegration Programmes for former KLA Combatants (ICRS/KPC Programmes). Approx. 2,500 ex-combatants beneficiaries.
- Development and area management of micro-grants to benefiting ex-combatants.

1998-1999 **International Organization for Migration (IOM)**
Gen. Santos City
Manila Mission

Mobile Information, Education and Communications Specialist

- Responsible for Information Counselling and Referral Services for former MNLF Combatants who were reintegr ating into civilian society in SOCSARGEN and Davao Areas of South-Central Mindanao
- Assisted former MNLF Combatant s develop project proposals for Community Development and helped ex-combatants organize cooperatives to access reintegrati on grants from the UN Multi-Donor Programme and other Donors.
- Implement educational activities in former combatant communities and over the local radio network to expand knowledge and understanding of the peace agreement to build community confidence in the peace process.

1997-1998 **Society of Jesus**

Jesuit Mission Parish of Zamboanguita

Malaybalay, Bukidnon, Philippines

Jesuit Pastoral Assistant

- Organized Basic Ecclesial Communities (BEC) in the Upper Pulangi District of Bukidnon (Indigenous People Communities)
- Assisted BEC members/cells manage t heir micro-livelihood projects and in organizational development
- Substitute Teacher for the Jesuit Mission School, The St. Isidore High School.

1995-1997 **Society of Jesus**

Ateneo de Naga High School

Naga City, Philippines

Jesuit Faculty Member (High School)

- Teacher of Values Education Course
- Member of the Ateneo de Naga Board of Trustees
- Director of Jesuit Vocations Promotions Office

Education and Training

2006 **Norwegian Refugee Council**

Makati City, Philippines

- **Training of Trainors (TOT) Camp Management**

A Course on the principles, strategies and techniques in giving a Training on Camp Management of IDP and/or Refugee Camps to Camp management practitioners in different emergency situation.

2004 **University of Geneva - CIHC**

Geneva, Switzerland

- **International Diploma in Humanitarian Assistance (Batch 13)**

A diploma course for managers of humanitarian emergency relief operations, including: standards, logistics, food and nutrition, water and sanitation, non-food items, health, camp-site planning and management, gender and cultural sensitivity, demobilization of ex-combat ants, international humanitarian law, human rights and post-conflict development strategies. The Programme is a Consortium of the University of Genev a, Fordham University of New York, The Royal College of Surgeons in Ireland, and the Center for International Health and Cooperation (CIHC).

December 1998

Participatory Rural Appraisal (PRA)

Balay Mindanao Foundation

June 1999

Community Organizing for Community Development (CO-CD) Seminar

CO Multiversity

1991-1995 **Ateneo de Manila University**

Quezon City, Philippines

- **MA Academic Units in Philosophy**

  As part of Jesuit Scholastic Formation.

- **Jesuit Scholastic Studies**

  Including: Formation in Ignatian and Jesu it Spirituality, Spriitual Exercises (30-day Retreat), Psycho-Spiritual Int egration Seminar in the Novitiate; Communication Arts Training in Englis h, Pilipino and the Tri-media in the Juniorate; Community development immersions and experiments in grassroots communities, Hospit als, Labor, Slums, and Indigenous Communities.

1985-1990 **Xavier University**
Cagayan de Oro City, Philippines

- **BS Degree in Mathematics**
- **Also Major in Philosophy**

Affiliations

1991-1998
Society of Jesus (Jesuits)
- Philippine Province

1998-present
International Organization for Migration (IOM)

Examinations

Civil Service Commission
Carreer Service Professional Examination with general rating of 94.05%
CSC Regional Office 10, 1998

Civil Service Commission
Brightest for the Bureaucracy Program (BBP) with Superior Rating of 99%
CSC Regional Office 10, 1998

Skills

Computer:
Microsoft Windows and Office Environment

Driving:
Licensed for 2 - wheel and 4 - wheel driving with experience in On and Off Road conditions.

Languages
Articulate in English, Pilipino and Cebuano, conversant in Bicol

Joanna Dabao

jodabao@gmail.com

51 Palawan St. Marina Baytown 879.85.43 (home)
Tambo, Paranaque 0917.813.30.98 (mobile)

EXPERIENCE

Kaiser Permanente Oakland, CA
Business Applications Coordinator August 2005 – July 2006

- Conducted quantitative and qualitative analyses of various projects
- Prepared preliminary interpretations of analyses for project teams, clients and department management
- Evaluated existing application and developed recommendations to support clients' needs
- Created project proposals, recommendations, implementation plans and training materials related to assigned local and regional projects
- Worked with departments regarding workflow redesign and modifications to policies and procedures
- Collaborated with various teams to identify areas of optimization within departments
- Served as the point of contact for the resolution of client issues

Integrity Capital, LLC Orinda, CA
Intern Summer 2005

- Researched client portfolios that supported financial management decisions
- Prepared profiles of clients and prospective clients
- Completed various public relations projects and office activities

Career Development Center Moraga, CA
Student Aide 2003- 2005

- Managed and maintained the website for student part-time jobs
- Monitored phone inquiries and developed employer relations
- Performed various office tasks and creative responsibilities

SMC International Club Moraga, CA
Public Relations Officer 2004-2005

- Promoted club activities and maintained favorable ties with faculty and outside organizations
- Successfully executed fundraising projects for several charities

Studies for International Students Moraga, CA
English as a Second Language (ESL) Tutor 2004-2005

- Assisted international students with reading and writing assignments
- Helped students become more comfortable communicating in English

International Organization for Migration Manila, Philippines
Intern for Website, Intranet and Digital Assets Management Unit Summer 2004

- Involved in activities related to general digital assets management
- Gathered necessary data for images submitted to the unit
- Prepared materials for uploading onto the Organizations Digital Assets Server

Philippine Interactive Audiotext Services Manila, Philippines
Customer Service Representative Summer 2003

- Responded to client phone inquiries
- Performed general office tasks including data entry and organizing activities and appointments

EDUCATION

Saint Mary's College of California May 2005
B.S. Psychology
[redacted]
Ateneo de Manila University June 2001 – March 2003

SKILLS

- Proficient in EPIC systems, Microsoft Word, Excel and Power Point, Adobe Photoshop

ACTIVITIES AND INTERESTS

- Co founder of organization: *Art for Others*: Workshop for prisoners at correctional facilities and medium security prisons in Manila (1999)

RIZALDY FAJARDO

Residence
#5 King Philip St.,Royale Estates
Malolos City, Philippines

HP No: (63-917)5422250
Personal Email: [redacted]

Email: rfajardo@iom.int

Academic Qualifications
Master of Business Administration 1998
International Academy For Management And Economics, Quezon City, Philippines
8 units

Bachelor of Science, Civil Engineering 1977-1982
National University, Manila, Philippines

Professional Experience
February 2005-June 30,2007 **Civil Engineer**
IOM Banda Aceh
Aceh/Nias Recovery and Rehabilitation Programmes

Since Joining IOM Aceh in 2005, I have served in vari ous projects as Civil Engineer, the most recent of which is with the $20 million American Red Cross-funded Shelter Project, based in different districts and islands of North Sumatra. As Civil Engineer, my responsibilities are as follows:

- Supervise, train, organize and monitor a team of # workers, local engineers and architects in the construction of pre-f abricated panel temporary and permanent shelter units.
- Responsible for the technical evaluation of contractors' capacities and bids.
- On-site monitoring of ongoing construction acti vities, reviewing contractor performance, and recommending and implementing approved (by senior management and donor) interventions for improved project implementation.
- Responsible for surveying, designing, and quality control of construction activities.
- Attend meetings and coordinate with various key agencies in Aceh such as the United Nations Development Program (UNDP), World Food Program (WFP), World Health Organization (WHO), United Nations Children's Education Fund (UNICEF) and other international NGOs active in the shelter sector.
- Ensure technical compliance with Indonesian Government, donor and IOM regulations in shelter construction and obligations making ce rtain that projects are meeting targets within the agreed timeframe and budget.
- Prepared project progress reports for submission to the Project Manager, indicating recommended project support actions as required/necessary.
- Liaison and negotiation with relevant government and non-government organizations and other institutions in the overall direction and implementation of the project.
-

Construction achievements:

- 1800 units of temporary and permanent houses
- 25 UNICEF schools
- 2 WHO clinics
- 500 market stalls in Nias Island, North Sumatra
- 300 market stalls in Simielue Island, Nanngroe Aceh Darussalam
- 1 1.20X80 suspended bridge

Design Contribution:

- Market stall design
- Temporary Schools
- Support and stands for bladder tanks
- Child center for UNICEF

- Foundation designs of the satellite health clinics
- Site development of various sites

Nov 2003-Jan 2005 Area Manager/Senior Civil Engineer
Roshan Connection (French Firm), Kabul, Afghanistan

As Area Manager, I was in charge of the civil works group for the whole RNP (Radio Network Planning) roll out of telecommunication systems in Kabul and eight adjoining provinces which established 194 cell sites in rooftops and green fields. Specific duties included:

- Project management, site acquisition, technical planning, design and Implementation.
- Lead a team of engineers in the survey and design, until implementation of towers, shelters and other site development requirements.
- Monitored the outputs of the team and provided technical support to ensure the quality and timeliness of delivery of defined outputs in accordance with the work plans.
- Prepared preliminary design and evaluation for rooftop sites.
- Prepared weekly reports for submission to the Deployment Director.
- Interfaced with RF (Radio Frequency) and Transmission engineers in the survey/site acquisition and design.

Mar 2001-Nov 2003 Operations Manager
Value Plus Construction and Services, Malolos City, Philippines

As Operations Manager, I oversaw the operations of the company that dealt with telecommunications as a supplier and general contractor. I was directly responsible for the telecommunications civil works requirements, including the design, costing, implementation of cell site construction in various set ups (rooftop or green field, guyed tower or self supporting).

Projects handled/completed

- 4 SMART Cell site, permitting, tower foundation and erection and site development.
- GLOBE Cell site Phase 8b for MRP-ERICSSON
- 4 Sites – Cabin Construction, Tower Erection
- Electrification of 14 sites GENSET Installation testing and commissioning, including alarms.
- 2 Sites: Pole Erection and Secondary Power Installation and Commissioning
- 4 Sites: Tower Rectification

July 1999– Feb 2001 Project Manager
Edzam Construction Incorporated, Pasig City, Philippines

As Project Manager, I managed a team of fifteen (15) engineers for different projects in the implementation of Telecommunication projects for the biggest telecommunication companies in the Philippines, namely, Globe telecom, Smart telecom, Islacom, and Digitel. My duties included planning, surveying, permitting, and site acquisition, for rooftop and green field, co-locate or new sites, guyed tower or self supporting set ups.

Projects completed:

- **DIGITEL – NORTEL -** 35 Cell sites, site acquisition, Initial design
- **ISLACOM PROJECT -** 5 Cell sites (co-locate roof top and green field), site acquisition to implementation
- **GLOBE TELECOM PHASE 7 MRP – NOKIA** 67 Sites, permitting works Luzon-wide
- **GLOBE TELECOM PHASE 6 NOKIA** 14 Sites, permitting to RFI to handover.
- **GLOBE TELECOM PHASE 2 SWE Site**
- **ERICSON** 3 Sites
- **SMART CELLSITE 6 Sites** (green field and rooftop) design to implementation
- **Philippine Long Distance Telephone (PLDT) Company –** outside plant trenching and manholes

Jan 1996–June1999 Project Manager Support Facilities
Bosch Telecom, France SA, Makati Philippines

As Project Manager, my duties were:

- Led a team of 7 engineers in the planning and implementation of the National Telephone Program 1-2 of the Department of Transportation and Communications (DOTC), Phase 1 and Phase 2, for regions 6, 7 and 8, consisting of 21 Local exchanges 14 relay stations all with access roads.
- Checked and worked on the approval of plans of local exchanges buildings, relay station buildings or radio rooms, access roads plans, and towers including the as-built plans by the consultant and DOTC.
- Implemented, supervised, administered and monitored different sub-contractors in the performance of their contracts through the field engineers' reports and assessments.
- Conducted field surveys, coordinated with local officials for the site acquisition and permit procurement.
- Surveyed sites for local exchanges and access roads, preliminary design to final design and the implementation of the same.
- Monitored site engineers and assessed their performance and submitted annual evaluation to the country manager.
- Reported and participated in the planning committee in the formulation of effective implementation strategies of the project, attended weekly coordination meetings and monthly technical meetings.
- Interfaced with the different department heads for the proper location of distribution frame of inside plants, and the cable vault of outside plants.
- Coordinated with the microwave transmission department for the proper construction of solar panel and the wiring conduit requirement.
- Coordinated with field representatives of consultants and clients in conducting preliminary to final acceptance of each site.
- Directed office engineers in the preparation of implementation schedule and budget.
- Prepared and implemented catch-up plan for site with delays.

Feb 1994–Dec 1995 Civil Engineer
Alcatel Sel, Visayas and Mindanao, Philippines

As the main civil engineer for the project, my tasks were as follows:

- Directly handled take-over site for the PLDT Backbone projects namely the North Samar relay-tower foundation and erection, relay station building, site development and the construction of 4 kms access road, the Calbayog relay-Pile Driving & Tower Foundation & erection and completion of site development.
- Assigned in the complete construction of Camalig Relay tower and waveguide bridge construction.
- Surveyed, cleared and implemented different spur stations in the towns of Matnog, Merida, Bato, Prosperidad and Sto Tomas.
- Handled directly and organized team to correct 14 relay stations snaglist in various areas of the island of Mindanao, in the cities of Surigao, Davao and Cagayan de Oro.

Jul 1993–Feb 1994 Project Coordinator
C & D Consultant, Pasay City, Philippines

- Coordinated with the different project inspectors/sub-contractors of different trades for the whole project and worked on the solutions of the various on-site problems encountered for the Government Social Insurance Services (GSIS) main headquarters Building.
- Evaluated billings and accomplishments of contractors.
- Coordinated with the resident engineer for the day to day project site problems generated by trade contractors.
- Monitored and supervised the construction of sewage treatment plant from pile driving to completion of structure.
- Attended and conducted daily/weekly/monthly coordination meetings
- Monitored and supervised the construction of sewage treatment plant from pile driving to completion of structure.

Jan 1987–Jun 1993 Civil Engineer

As owner and Civil Engineer of family-operated construction company, completed the construction of the following structures:

- 2 Storey residential building (value of Php1.3M)
- 6 Br Residential building (value of Php 1.8M)
- 6 Door 2 storey Apt. Buildings (value of Php 1.8M)
- 3 Door 2 storey Apartment buildings (value of Php 1.2M)
- 7 Units residential buildings
- 5 Units repair/upgrading
- 4 storey condominium unit

Nov 1984–Nov 1986 Civil Engineer
Saudi Refrigerated Transport, Jeddah, Saudi Arabia

- Responsible for the development works undertaken by contractor for a 25 hectare yard
- Handled 350 units of tractor trailer repair shed and garage and office building/staff cabin,
- Managed site development works, including access road and underground fuel tank.
- Prepared report and assess billing.
- Led a team of 8 personnel in maintaining the cleanliness of the workshop and villas.
- Supervised and scheduled air-conditioning units' maintenance and repair.

Feb 1984–Nov 1984 Site Engineer
HA Camacho Construction, Pasig City, Philippines

- Responsible for the development works undertaken directly by the company for their Trinidad Homes subdivision from roads and canal construction to housing construction.
- Prepared work schedule and manpower assignment and monitored different housing projects at the subdivision.
- Prepared weekly/daily materials requirement for the site's different in house construction.

Other Skills

- Speaks Bicolano, (mother tongue), Filipino (fl uent), English (fluent), and Bahasa Indonesia (basic)
- Proficient in word processing, presentation, spreadsheet and internet-based programs
- Excellent skills in mechanical and electrical engineering

References

1. Jeffrey McMurdo
   Project Manager – AmRC Shelter Project
   IOM Aceh

2. J eff Jewitt
   Senior Engineer
   American Red Cross. Banda Aceh

3. Dzulkifli Bin Raman
   Senior Vice Pesident
   Magna Restu, Philippines Incorporated

   Contact details will be provided upon request.

IDA MAE V. FERNANDEZ

ifernandez@iom.int
+63.917.846.5240
+63.2.848.1260 extension 172

SKILLS & QUALIFICATIONS

Skills **:** Team leadership and management (operational, administrative, and financial), high motivation and consistency in demonstrating responsibility and accountability of tasks, resourcefulness, proven ability to work both independently and as part of a team, works well under pressure, easily adjusts to new settings, analytical, culturally sensitive, people-oriented, flexible, creative, computer literate and output-oriented.

Qualifications **:** Trained information, education and communication specialist and project planning/design/development, management, evaluation, reporting and tracking officer, with experience in the developmental areas of: the law of the sea, human rights, violence against women and migration/development, counter trafficking, labour migration, post-disaster emergency support and assistance, return and reintegration and family reunification, with extensive experience in the realm of tri-media public information and campaigns; grassroots, national, inter-governmental, international training; project implementation; database management; assessment and planning; liaising and networking; legislative advocacy; research and counselling.

CURRENT PROFESSIONAL STATUS

2005 to date, International Organization for Migration
Manila Administrative Center
PROJECT OFFICER

- Leads the development of projects for IOM MAC
- Provides overall implementation and management support of projects and other operational activities
- Designs and develops information on project activities for programmatic planning and decision-making
- Contributes to building IOM internal project-relevant institutional capacity as well as appropriately strengthening institutional relations with counterparts
- Liaises with host Government and local authorities, donor and other entities to meet project objectives
- Communicates with donors to ensure close coordination of both development and implementation of the project activities

2001 to 2004, International Organization for Migration
Project Tracking Unit of the Programme Support Department, HQs, Geneva
PROJECT TRACKING OFFICER

- Tracked the development of project proposals and the implementation of funded ones, in no less than 190 field-locations worldwide of about 300 active projects at any given time

- Managed the project tracking database, with supervisory tasks over no less than 7 personnel, in situ and in remote locations

1999 to 2001, International Organization for Migration
Project Development Unit of the Programme Support Department, HQs, Geneva
PROJECT ASSISTANCE TOOLKIT ADMINISTRATOR

- Handled the administration and operation of project development and management support activities worldwide

- Managed the collection of project documentation worldwide

- Designed and led the development of a global project assistance toolkit in close coordination with IOM's Information Technology and Communications Service (ITC) Department

1998 to 1999, International Organization for Migration
Sub-regional Office for Asia and Oceania, covering Manila Vietnam, Thailand, Hong Kong SAR, Korea and Australia
PROJECT INFORMATION, EDUCATION AND COMMUNICATIONS SPECIALIST

- Led the design, development and management of mass information activities and projects, with special focus on trafficking prevention among labour migrants

EDUCATION

1990 **Masters in Social Work & Community Development, Major in Women and Development**
University of the Philippines

1985 **Bachelor of Arts in Political Science**
University of San Carlos, Cebu, Philippines

Derrick Bart B. Pimentel

40 years old. Married with 2 children
Block 9, Lot 12, Camella Homes, Cagayan de Oro City, Philippines

Present Work (since 2000):

Program Coordinator
Xavier University
First Year Formation Program
A101, Aggies Building
Corrales Avenue
Telephone Number: 8583116 local 3207, email: dbpimentel@gmail.com

Work Experiences:

Development Work

1. Committee of German Doctors, Community Health Organizer, 1987, Xavier University – College of Medicine, Cagayan de Oro City,
2. Ephpheta Foundation for the Blind, Children, and Aging, Executive Director, 1997, Quezon City
3. International Organization for Migration - MIRCAS Programme, Liaison Officer, 1999, UN-Multi Donors' Program, Southern Philippines Council for Peace and Development, Cotabato City

Academic Work

1. Ateneo de Naga University, High School Faculty, Student Organizations Moderator, 1995, Naga City
2. Ateneo de Zamboanga University, High School Faculty, Student Organizations Moderator, 1996, Zamboanga City
3. Xavier University – Ateneo de Cagayan, Program Coordinator, College Faculty teaching First Year Formation Program, Religious Studies, Political Science, and Philosophy, 2000 to present, Cagayan de Oro City

Involvement:

1. Professionals for Mindanao Foundation Inc., PROMin, Member
2. Xavier University Center for Legal Aid, Executive Committee Member, Trainor
3. National Movement for Free and Honest Election, Quick Count Operations Senior Staff, Paralegal
4. Former member of the Society of Jesus

Educational Background:

1. Bachelor of Arts in Philosophy, Xavier University, 1987
2. Master in Philosophy – Non Degree Program, Ateneo de Manila University, 1994
3. Bachelor of Laws, Xavier University, Cagayan de Oro City and Medina College of Law, Ozamis City, 2007

Zone 6, Sta. Salud
Calabanga, Camarines Sur
Mobile Number 09209549249

JOCELYN B. REGANIT-CERVAS

PERSONAL QUALITIES

Organized, team player, objective, fast learner, responsible, articulate, diligent.

SKILLS

Documentation, facilitation, organizin g, network-building, ma nagement, accounting, auditing, computer proficiency (MS Wor d, Excel & Powerpoint) problem-solving, proposal writing and resource accessing.

WORK EXPERIENCES

Mar 2006-June 2007- ENJOY REALTY AND DEVELOPMENT CORPORATION
(The Best Developer in Bicol Region per HLURB Region 5 Ranking)

MARKETING OPERATIONS HEAD

1. Efficiently carried out liaising work with the Local Government Unit.
2. Effectively redesigned the training modules for the accreditation of its salesforce;
3. Completely collated company manua ls: Sales Manual, Personnel Manual and Operations Manual.
4. Successfully organized project documentation.

Nov 2005-Mar 2006- PEARL S. BUCK-PHILIPPINES FOUNDATION
(An international NGO catering to the educational needs of Amerasians and the livelihood needs of their communities)

PROJECT MANAGER

1. Comprehensively undertaken organizati onal diagnosis for three distinct yet inter-related cooperatives;
2. Effectively prepared project proposal s to re-organize two (2) cooperatives and help sustain the gains of one (1) all-women cooperative in Ormoc City;
3. Significantly facilitated the accomp lishment of backlogs in sponsorship communication by the Philippine Office to Pennsylvania, USA Head Office.

June 2002 –Oct 2005- BICOL ALTERNATIVE CREDIT AND SAVINGS COOPERATIVE
(An indigenous microfinance cooperative in Naga City)

MANAGER

1. Successfully organized the cooperative as its founding Manager;
2. Pumped-prime capitalization growth from measly P50,000.00 to P5,000,000.00 in just three (3) years;
3. Boosted membership growth from 25 to 500 in just three (3) years.
4. Ably managed a total loan portfolio of P10,000,000.00.
5. Sits as Board Member and Auditor of Naga City People's Council (an aggrupation of NGOs/Pos in Naga City created by virtue of the LGU's Empowerment Ordinance)

January 1997-June 2002- MATALINGKAS NA AGRARYONG GRUPONG SARARO PARA SA KAUSWAGAN KAN CAMARINES SUR (MAGSAKA-CA)
(A provincial federation of agrarian cooperatives in Camarines Sur)

EXECUTIVE DIRECTOR

1. Ably handled networking and partnership-building.
2. Successfully accessed funding support from the Peace and Equity Foundation in the amount of P3,000, 000.00 for marketing and microfinance projects;
3 Successfully accessed funding support from the Japanese Embassy for agricultural pre and post harvest facilities in the amount of P4,000,000.00;
4. Sits as Board of Director of Cams Sur NGO for Empowerment and Technical Support (CADENET)

Jan 1995-Dec 1996- PHILIPPINE PARTNERS HIP FOR THE DEVELOPMENT OF HUMAN RESOURCES IN RURAL AREAS
(An umbrella organization of NGOs nationwide implementing development projects related to agrarian and aquatic reform, environment and gender and development)

ASSOCIATE PROVINCIAL PROGRAM OFFICER

1. Efficiently implemented the capabilit y-building program of the organization for partner government offices, cooperatives and NGOs.

Feb 1992-Apr 1994- CENTER FOR COMMUNITY SERVICES
(An outreach program of Ateneo de Manila University)

AREA COORDINATOR

1. Efficiently implemented community projects in selected coastal and rural areas in Albay.
2. Significantly represented the organization to the Health Board of the Local Government Unit.

Jun1988-Jan 1992-CENTER FOR COMMUNITY DEVELOPMENT
(An outreach program of Ateneo de Naga University)

WOMEN'S DESK COORDINATOR

1. Successfully Implemented gender projects in three (3) urban poor areas in Naga City.
2. Effectively organized three (3) women organizations in the urban areas.

EDUCATION

2003 Candidate, Master in Public Administration (MPA)
Ateneo de Naga University

1987 Graduate, Bachelor of Science in Commerce (BSC),
Major in Accounting
Ateneo de Naga University

REFERENCES

ATTY. MILA RAQUID-ARROYO
CASAFI Compound, Liboton
Naga City
CP Number 09175801024

MS. MARILOU P. CAPUCAO
CASAFI Compound
Liboton St. Naga City
CP Number 09209278223

MR. RAUL L. ALICAWAY, MM
Loboton St., Naga City
CP Number 09177959319