## **APPENDICES**

## APPENDIX **H**

**SOCIO-ECONOMIC PROFILE OF CAAM** 

## APPENDIX H SOCIO-ECONOMIC PROFILE OF CAAM

### 1.0 NATURAL ENVIRONMENT

### 1.1 RESOURCES

### 1.1.1 Water Resources

CAAM in Mindanao encompasses remarkably rich fresh water resources in its entire land that meet the requirements for agriculture, irrigation, domestic and industrial uses. Inland water bodies include Lake Lanao - the second largest lake, Lake Mainit - the 4th largest and deepest lake, the Pulangui River – the second largest river, Liguasan Marsh, - the biggest marsh in the country.

### 1.1.2 Mineral Resources

Large deposits of primary copper ore are found in the province of Compostela Valley while garnierites ores are found in Davao Oriental. Enormous supply of chromite and laterite ores can only be found in the province of Davao Oriental. The region also abounds in gold and silver deposits. Gold ores are mostly found in the province of Compostela Valley while, iron magnetite are found in the province of Davao del Sur. The province of Davao Oriental has the most number of non-metallic mineral deposits (limestone, shale, magnetite and chert) in large quantities. Major copper deposits were found in South Cotabato and Sultan Kudarat provinces. These deposits are expected to contribute regional development as well as national development.

### 1.1.3 Biological Diversity

Philippine is known as a mega-biodiversity country, and be declared its entire country as a biodiversity hotspot by Conservation International (CI). The Mindanao encompasses extremely diverse landscapes and Biological diversity. More than 6000 species are endemic, and 56 of bird species, 47 of mammal species and 48 of amphibians are threatened. The Liguasan Marsh has the vast flood plain, approximately 228,000 hectares during rainy season and 105,000 hectares during dry season, and endowed with diverse aquatic fauna and flora. The Agusan Marsh, covering approximately 14,835 hectares, has been declared as a World Heritage Site of UNESCO. The Agusan Marsh is home to a number of rare and endangered water birds like the Oriental Darter, Purple Swamp Hen, Philippine Hawk Eagle, Spotted Imperial Pigeon and Rufous-lored Kingfisher.

### 1.2 Land Use

### 1.2.1 Production Land Use

Production land use in the Mindanao is generally categorized as agricultural lands, fishing areas, salt bed, production forests, mining or resource extraction activities, industrial areas, tourism areas, and open land. An estimated area of 6 million hectares in the Mindanao has been classified for production land use.

### 1.2.2 Agricultural Land

The favorable agro-climatic conditions have made agricultural production highly viable in the Mindanao. Among the traditional crops cultivated are coconut, corn, and rice. Emerging commodities that are producing more income for local growers are vegetable and fruit crops.

### 1.2.3 Fishing Area

The vast marine resource of the Mindanao offers a wide variety of sea foods. General Santos City is the country's leading producer of tuna. The tuna industry of the Mindanao has a very strong demand for its produce, both in the local and world market. Seaweed farming is now recognized as a potential aquaculture industry in the Mindanao for export to Asian countries.

### 1.2.4 Forestlands

Production forest covers about 3.25 million hectares of the total land area of the Mindanao. These forestlands are not only devoted for production forest but also include area where annual and perennial crops are cultivated. Similarly there are also portions of the mangroves in the Mindanao which are also classified for production land uses.

### 1.2.5 Mineral Lands

The mineral resources of the Mindanao which are classified into metallic to non-metallic deposits covers an aggregate area of almost 120,000 hectares. Among the 6 regions, Region XII is the most endowed with rich mineral resources spanning an area of 62,888 hectares or accounts for more than half of the mineral lands of the Mindanao. Ranking 2nd, in terms of mineral land area, is Region IX with 27,000 hectares and 3rd is Region XII with almost 19,000 hectares of mineral lands.

### 1.2.6 Industrial Areas

There are about 6,500 hectares earmarked for industrial activities. Industrial development areas are those suitable for manufacturing/processing firms or any other industrial establishments where the support facilities required are available or could be feasibly put up.

These areas are located in PHIVIDEC Industrial Estate in Misamis Oriental (PIE-MO) which is the largest industrial estate in the country with 3,000 hectares; another 2,699 hectares is devoted for industrial development in Region IX and the Maguindanao Eco-city with 351.76 hectares land for industrial development located in Parang, Maguindanao.

### 1.2.7 Tourism Areas

Mindanao abounds with diverse and abundant man-made and natural attractions and sociocultural resources that give it an edge in becoming the one of the top, if not the best, tourist destination in the country. These include the scenic spots and natural parks, beaches, diving sites, waterfalls and lagoons, historical places and cultural festivals. Also its beautiful ecotourism sites like the Mt. Apo, Liguasan and Agusan marsh that host diverse flora and fauna can be potential earners for its tourism sector.

### 1.2.8 Protection Land Use

### 1.2.8.1 NIPAs Areas and Environmentally Constrained Areas (ECAs)

National Integrated Protected Areas System (NIPAS) are defined as those areas that encompass biologically important public lands such as habitats of rare and endangered species of plants and animals. To date, some 72 sites in the 6 regions of the Mindanao with an estimated area of 762,429 hectares have been declared under the NIPAS. The NIPAS consists of natural parks, protected seascapes and landscapes, natural monuments, proclaimed watersheds, and caves and cave resources.

### 1.2.8.2 Non-NIPAS Areas

As in the NIPAS areas, equal importance should be accorded to non-NIPAS areas in terms of conservation and sustainable development since these areas are also experiencing various forms of exploitation and degradation. The areas initially identified outside the NIPAS are wetlands (coastal and freshwater), important bird areas, second growth forests, protected agricultural lands, buffer strips and easements, and ecotourism sites (natural/cultural heritage areas). The non-NIPAS areas in the Mindanao cover an estimated area of 1.65 million hectares. The biggest non-NIPA area can be found in Region X, its 631,000 hectares contributes almost 4 percent to the total non-NIPA land area. About 184,000 hectares in Northern Mindanao has been tagged as ancestral lands and are now subject to claims by the Indigenous Peoples of the region.

### 1.2.9 Major Natural Disaster Prone Areas

### **1.2.9.1 Flooding**

Areas along major rivers can be considered prone to floods in the Mindanao. In Region X, the rivers of Cagayan de Oro, Iponan, Alubijid, Oroquieta, Gingoog, Tudela, Plaridel, among others are highly susceptible to flooding. There is always a possibility that their floodplains will be in danger of upstream flooding, which can cause widespread, prolonged damage. Likewise, low-lying areas along the coasts are prone to tidal flooding or one brought by tidal surge due to typhoons. Coastal cities and towns in eastern and western Misamis Oriental and eastern Misamis Occidental have been identified as prone to coastal flooding. Damage may be enhanced when it is accompanied by typhoon and riverine flooding.

### 1.2.9.2 Tidal Waves and Tsunamis

Tsunamis are giant sea waves generated mostly by submarine earthquakes. Historic submarine quakes in Northern Mindanao originate from the deep Bohol Sea and the Philippine Sea. The 1923 earthquake off the Diwata Point triggered more or less a 5-meter-high tsunami and affected the coastal site of Gingoog Bay. Other coastal areas prone to tsunami in the Mindanao are Lopez Jaena in Misamis Occidental and Magsaysay and Gingoog City in Misamis Oriental.

### 1.2.9.3 Salt-Water Intrusion

Salt water intruded areas in the region are found along the coasts, especially those that are intensively utilized for fishpond and other aquaculture activities. Based on the data gathered, the regions that reported this type of hazard are Northern Mindanao and Davao. In Region X, 2 municipalities and 3 cities were identified to be prone to salt-water intrusion. These are the low-lying coastal areas, like in Cagayan de Oro, Oroquieta and Ozamiz, the towns of Plaridel and Baliangao in Misamis Occidental. One cause of this hazard is the over-pumping of groundwater. In 1973, four of the shallow wells that tap the shallow aquifer in Cagayan de Oro City where intruded by saline water which greatly reduced the available water supply in the area.

**Table Table H 1.2-1 Major Natural Disaster Prone Areas** 

HAZARDS	LOCATION (REGION, MUNICIPALITY, BARANGAY)	REMARKS
Weather and water-related hazards	Region IX, Coastal barangays of Zamboanga City, Zamboanga del Sur and Zamboang del Norte	
Flooding	Region X, rivers of Cagayan de Oro, Iponan, Alubijid, Oroquieta, Gingoog, Tudela, Plaridel  Coastal cities and towns in eastern and western Misamis Oriental and eastern Misamis Occidental	There is always a possibility that their floodplains will be in danger of upstream flooding, which can cause widespread and prolonged damage.  Likewise, low-lying areas along the coasts are prone to tidal flooding or one brought by tidal surge due to typhoons Damage is light except when it is accompanied by typhoon and riverine flooding.
Flooding	Region XI, 90,438 hectares of the Davao region with Davao del Norte, the largest, pegged at about 40,726 hectares, situated along the Tagum-Libuganon River, particularly within the municipality of Carmen. Agusan River which cuts through the municipalities of Monkayo, Compostela, New Bataan, Sto. Tomas, Asuncion, Carmen and the City of Tagum. Municipalities of Malita and Hagonoy in Davao del Sur.	About 6,425 hectares of the Carmen's municipality are prone to floods.
Tidal waves or tsunamis	Coastal areas prone to tsunamis are Lopez Jaena in Misamis Occidental and Magsaysay and Gingoog City in Misamis Oriental	Historic submarine quakes in Northern Mindanao originate from the deep Bohol Sea and the Philippine Sea., The 1923 earthquake off the Diwata Point triggered a more or less 5-meter-high tsunami and affected the coasts of Gingoog Bay.
Salt-water intrusion	Region X Low-lying coastal areas like in Cagayan de Oro, Oroquieta and Ozamiz, the towns of Plaridel and Baliangao in Misamis Occidental Northern Mindanao and Davao	One cause of this hazard is the over-pumping of ground water., In 1973, four of the shallow wells that tap the shallow aquifer in Cagayan de Oro City were intruded by saline water which greatly reduced the available water supply in the area
Salt-water intrusion	Region XI Davao Oriental and between Maco in Compostela Valley and Panabo in Davao del Norte,, Davao del Sur along coastal areas of Hagonoy, Padada, Sulop, Malalag, Sta. Maria and Don Marcelino	

### 1.2.9.4 Areas affected by volcanic hazards and Lahar-prone Areas

Volcanic hazards involve dangers posed by volcanoes which are mostly associated with eruptions. However, some dangers are not directly associated with volcanic eruptions like water-rich debris flow (lahar) and other down slope movements of loose materials on the slopes. Lahars, or mudflows, become a serious hazard when heavy rains saturate thick ash deposits that mantle the slopes of a volcano, thereby saturating these materials. In the event a major volcanic eruption occur thereby causing heavy deposition of volcanic ashes.

Table H 1.2-2 Areas affected by volcanic hazardz and Lahar -Prone Areas

HAZARD	LOCATION (REGION, MUNICIPALITY, BARANGAY)	REMARKS
Volcanic Hazards	Region IX Anecdotal accounts indicate that Mt. Sirungan in Lakewood, Zamboanga del Sur erupted in the 1800s	A detailed geological study is necessary since no scientific documentations were ever made to support this account.
Volcanic Hazards	Region X Following volcanoes Calayo, Hibok-Hibok, Kalatungan, Makaturing, and Ragang	These active volcanoes with historical accounts of eruptions pose hazards that could affect the region's physical and socioeconomic conditions.
Lahar-Prone Areas	Region X Provinces of Bukidnon, cities of Cagayan de Oro, Tangub, Ozamiz and Oroquieta; and towns of Sapang Dalaga, Calamba, Baliangao, Plaridel, and Lopez Jaena in northern Misamis Occidental	
Volcanic Hazards	Region XII Three active volcanoes:, Mt. Radang, Mt. Matutum and Mt. Parker Mt. Radang has erupted nine times, the last of which was in 1915 Mt. Matutum erupted last 1911 but there are no records on the number of eruptions that took place prior to that year Mt. Parker in South Cotabato is known to have erupted 300 years ago  Active volcanoes: Mt. Hibok-Hibok in Camiguin Island, Mt. Makaturing in Lanao del Sur, Mt. Calayo and Mt. Kalatungan in Bukidnon. Mt Apo in Cotabato Province is a dormant strato volcano	

### 1.2.9.5 Erosion and Mass Movement

Mass movement or mass wasting is the down slope movement of the rock and soil through gravity. This often results to hazards such as landslides, creep, subsidence and settlement. The major agent of erosion in the region is water. Heavy rainfall causes flooding and erodes the top soil and everything else on the land surface within the packed energy of the flowing water. River erosion is a natural, continuous and generally predictable process involving abrasion and scouring of stream banks and beds. It is a primary process of bringing changes in the landscape. It is the rampant illegal quarrying along rivers that usually causes shoreline and stream bank erosion. Coastal erosion is likewise a natural process rather than a natural hazard. Problems arise when people build structures along the coastal zones. Coastal erosion is, in general, a continuous, predictable process that can be mitigated with proper engineering measures.

The major factor of erosion is heavy rainfall on the bare ground. River erosion is a natural, continuous and generally predictable process involving abrasion and scouring of stream banks and beds. It is the rampant illegal quarrying along rivers that usually causes shoreline and stream bank erosion. Coastal erosion is likewise a natural process, however problems arise when people build structures along the coastal zones. In Region XI, a total of 847,422

hectares or 43 percent of the total land area of the region are severely eroded. Most of these areas have slope of more than 18 percent. The provinces of Compostela Valley, Davao del Norte and Davao del Sur have the most areas experiencing severe erosion. This is attributed to the rampant illegal and inappropriate cutting of trees, kaingin (slash-and-burn), inappropriate upland farming, encroachment of squatters and settlers in upland areas and inappropriate mining activities in the areas. In Region XII, areas with high probability of severe erosion occurrence are located in Libungan, Alamada, Banisilan, Carmen, Antipas, Magpet, President Roxas, Arakan, Tulunan, and Makilala in North Cotabato; Columbio, Lutayan, Esperanza, Lebak, Kalamansig, Isulan, Ninoy Aquino and Bagumbayan in Sultan Kudarat; Tampakan, Tantangan, Banga, Tupi, Polomolok, Lake Sebu and T'boli in South Cotabato; Maasim, Malungon, Alabel, Malapatan, Glan and Maitum in Sarangani; and in General Santos City.

Table H 1.2-3 Erosion/Mass Movement

HAZARD	LOCATION (REGION, MUNICIPALITY, BARANGAY)	REMARKS
Erosion or Mass Movement  Erosion or Mass Movement	Region IX several barangays of Zamboanga City such as in Putik, Lumbangan, Mangusu, Tumaga, Luyahan, Sinunuc, San Roque, Ayala, Upper Pasonanca, Tuktukalaw, Quiniput, Muti, Limpapa, Abong-abong and Murok documented in Siosocon, Dipolog City, Jose Dalman, Manukan, Dapitan and Sibutad less prevalent in Zamboanga del Sur as the phenomenon was only observed in Pagadian City, Mahayag and Lakewood Least affected province is Zamboanga Sibugay, phenomenon was observed only in Ipil and Buug Region XI a slope of more than 18 percent, a total of 847,422 hectares or 43 percent of the total land area of the region are severely eroded, particularly the provinces of Compostela Valley, Davao del Norte and Davao del Sur	attributed to the rampant illegal and inappropriate cutting of trees, kaingin (slash-and-burn), inappropriate upland farming, encroachment of squatters and settlers in upland areas and inappropriate mining activities in the areas
Erosion or Mass Movement	Region XII High probability of severe erosion occurrence in Libungan, Alamada, Banisilan, Carmen, Antipas, Magpet, President Roxas, Arakan, Tulunan, and Makilala in North Cotabato; Columbio, Lutayan, Esperanza, Lebak, Kalamansig, Isulan, Ninoy Aquino and Bagumbayan in Sultan Kudarat; Tampakan, Tantangan, Banga, Tupi, Polomolok, Lake Sebu and T'boli in South Cotabato; Maasim, Malungon, Alabel, Malapatan, Glan and Maitum in Sarangani; and General Santos City	

### 2.0 CONFLICT-AFFECTED AREAS IN MINDANAO (CAAM)

### 2.1 Land Area in CAAM

The conflict-affected areas or CAAM is part of the Mindanao group of islands which is located in the southern most part of the Philippines. It occupies a total land area of about 5.6 million hectares or 55 percent of the Mindanao Land area, the latter accounts for about one-third of the country's total land area. Mindanao is bounded by large bodies of water: on the north by the Mindanao Sea, Sulu Sea in the west, in the south the Celebes Sea and in the east by the Pacific Ocean. Mindanao has long coastlines, large area of shallow continental shelf, marshlands and a few lakes.

CAAM is located within the six administrative regions namely, Zamboanga Peninsula (Region IX), Northern Mindanao (Region X), Davao (Region XI), SOCCSKSARGEN (Region XII), and the Autonomous Region of Muslim Mindanao (ARMM). CAAM involves thirteen (13) provinces, namely: Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay, Lanao del Norte, Compostela Valley, Davao Oriental, North Cotabato, South Cotabato, Sarangani, Sultan Kudarat, Basilan, Lanao del Sur, Maguindanao (including Shariff Kabunsuan), and three (3) cities: Pagadian City, Isabela City and Marawi City. Among the 13 provinces, Lanao del Sur has the biggest land area with 13,979.40 sq.km. While Basilan has a land area of 2,295 sq.km. Table H 2.1-1 provides the land area of the provinces and cities in CAAM.

Table H 2.1-1 Land Area of CAAM Provinces and Cities

AREA NAME	LAND AREA <sup>a</sup> (sq km)
Region IX	
Zamboanga del Norte	7,301.0
Zambonga del Sur	5,914.2
Zamboanga Sibugay	3,607.8
Region X	
Lanao del Norte	4,045.7
Region XI	
Compostela Valley	4,479.8
Davao Orienntal	5,740.0
Region XII	
North Cotabato	9,008.9
Saranggani	3,616.5
South Cotabato	4,428.8
Sultan Kudarat	5,251.3
ARMM	
Basilan	2,295.0
Lanao del Sur	13,979.4
Maguindanao	8,712.4
Marawi City	87.6
Isabela City	223.7
Pagadian City	333.8

<sup>&</sup>lt;sup>a</sup> Land area is based on the 2005 Land Area certified by the Lands Management Bureau. Source: National Statistics Office and Lands Management Bureau

### 2.2 Provinces of CAAM

### 2.2.1 Zamboanga del Norte

Zamboanga del Norte is situated in Northern Mindanao, bounded on the north and west by the Sulu Sea, on the east by Misamis Occidental, and on the south by Zamboanga del Sur. The province occupies a total land area of 7,316.19 square kilometers and a total population of 907,238 with an annual growth rate of 1.35, which is slightly lower in the region's growth rate.

### 2.2.2 Zambonga del Sur

Zamboanga del Sur is occupying the southern section of the Zamboanga Peninsula that forms the western part of the island of Mindanao. The province has substantial reserves of natural and water resources.

### 2.2.3 Zamboanga Sibugay

Zamboanga Sibugay has an approximate total land area of 322,830 hectares accounting for about 37.82 percent of the mother province of Zamboanga del Sur. The population of the province totals to 546,186, with annual growth rate of 1.30 percent, lowest among the provinces of Zamboanga Peninsula.

### 2.2.4 Lanao del Norte

The province of Lanao del Norte occupies the coastal area of northwestern Mindanao formed by the Iligan Bay up to the head of Panguil Bay. It links western Mindanao to Eastern and central Mindanao and serve as the land bridge of Zamboanga peninsula to the rest of Mindanao.

### 2.2.5 Compostela Valley

Compostela Valley is located in the Davao Region. It used to be part of Davao del Norte until it was made independent in 1998. Its capital is Nabunturan. The province borders Davao del Norte to the west, Agusan del Sur to the north, and Davao Oriental to the east. To the southwest lies the Davao Gulf. Pantukan, the only CAAM municipality within the province, is considered as a flood prone are.

### 2.2.6 Davao Orienntal

Davao Oriental is the easternmost province of Mindanao and lies outside the typhoon belt. It occupies the biggest land area of 5,164 square kilometers and represents 26 percent of the total land area of the region.

### 2.2.7 North Cotabato

North Cotabato, with a land area of 656,590 hectares, represents 45.06 percent of the whole region. It stretches west from Mt. Apo, which separates it from Davao, to the Piapayungan Range on its boundary with Lanao. In the midst of these uplands is the basin of the Pulangi or Rio Grande de Mindanao, the second longest in the Philippines at 300 km, which rises in Bukidnon and flows south to Maguindanao and Illana Bay. The province's fertile plains are traversed by tributaries of this great river.

### 2.2.8 Saranggani

Saranggani province borders South Cotabato to the north and Davao del Sur to the east. To the south lies the Celebes Sea while it sandwiches at the center the highly urbanized General Santos City. The province is divided into two parts, separated by the Sarangani Bay, and it used to be part of South Cotabato until it was made an independent province in 1992.

### 2.2.9 South Cotabato

South Cotabato is a province in the SOCCSKSARGEN region. Its capital is Koronadal City and borders Sultan Kudarat to the north and west, Sarangani to the south and east, and Davao del Sur to the east. Sarangani Bay lies to the southeast.

### 2.2.10 Sultan Kudarat

The province of Sultan Kudarat is part of SOCCSKSARGEN. It borders Maguindanao and Cotabato to the north, South Cotabato, Sarangani and General Santos City to the east. To the southwest lies the Celebes Sea.

### 2.2.11 Basilan

Except for its capital, Isabela City, Basilan is an island province located within the Autonomous Region in Muslim Mindanao (ARMM). Basilan is located just off the southern coast of Zamboanga Peninsula. Basilan is the biggest and northernmost among the major islands of the Sulu Archipelago.

### 2.2.12 Lanao del Sur

Lanao del Sur is a province of the Autonomous Region in Muslim Mindanao (ARMM) and borders Lanao del Norte to the north, Bukidnon to the east, and Maguindanao and Cotabato to the south. To the southwest lies Illana Bay, an arm of the Moro Gulf. Found in the interior of Lanao del Sur is Lanao Lake, the largest lake in Mindanao, where the Maria Cristina Falls, the largest waterfall in the country is located.

### 2.2.13 Maguindanao

Maguindanao is a province of the Philippines located in the Autonomous Region in Muslim Mindanao (ARMM). Its capital is Shariff Aguak. It borders Lanao del Sur to the north, Cotabato to the east, and Sultan Kudarat to the south. However, Cotabato City is an independent component city of Maguindanao.

### 2.2.14 Marawi City

Popularly known as Islamic City of Marawi, it is bounded on the west by Marantao and Saguiaran, on the east by Bubong and Ditsaan Ramain, on the north by Kapai, and on the south by Lake Lanao. It is also called as the Summer Capital of the South. The Islamic City of Marawi is the capital city of Lanao del Sur. The city is also called the Summer Capital of the South owing to its cool climate. Marawi City was a former municipality called Dansalan. The city became part of ARMM after the 2002, plebiscite, for the expansion, of the geographical coverage of ARMM. The city is composed of 96 barangays. Ninety percent of its inhabitants are Muslim Maranaos. The city is bounded on the south by Lake Lanao, the source of water of the Agus River used in the, operation of, the six Agus Hydropower Electric Plants, the principal source of power of the Mindanao Grid. Marawi City had a population count of 177,391 in 2007. Given its land area of 22.60 sq. km., its population density was placed at 7,849 persons/sq. km., the highest among 27 cities in Mindanao.

### 2.2.15 Isabela City

The capital of the province of Basilan, the city is located on the northern shore of Basilan. Across the Basilan Strait to the north is Zamboanga City. It is placed under the Zamboanga Peninsula region, and not of ARMM where Basilan province belongs to. From a capital town of Basilan Island Province, Isabela was upgraded into a third class city in 2003. It still maintains as the government and socio-economic center of Basilan despite of the transfer of governance of the Province and its six municipalities from administrative region to the Autonomous Region in Muslim Mindanao (ARMM) through a plebiscite in September 2001. The city has a direct trade linkage with Zamboanga City through its city public port., Isabela City's population in 2007 was recorded at 87,985. With a land area of 213.50 sq. km., its population density is put at 412 persons/sq. km. area.

### 2.2.16 Pagadian City

Pagadian City is a 1st class city in the province of Zamboanga del Sur. It is the capital city of the province and the regional center of the Zamboanga Peninsula. By virtue of E.O. 304 issued in March 2004, the seat of Region IX was transferred from Zamboanga City to Pagadian City. Thus, the role of Pagadian City as the administrative capital of the province has been expanded as the seat of regional offices of national line agencies in, Region IX. The

city provides institutional, basic social, financial and commercial services, to its city inhabitants as well as to its neighboring towns even outside the region, e.g., Lanao del Norte, Lanao del Sur, etc. Pagadian City has a sub-port of entry and a secondary airport. In 2007, the city had a total population of 161,312. Given a land area of 331.56 sq. km., the city's population density is placed at 486 persons/sq. km.

### 2.3 Administrative Boundary by Provinces, Municipalities, and Barangays

Not all municipalities in the 13 provinces are part of CAAM. For example, only one municipality within both Compostela Valley and Davao Oriental are parts of CAAM. In general, CAAM consists of 148 municipalities and three cities, and in terms of barangay, the count is 3847 barangays. The list of Baranagays per municipality is indicated in Annex H.

### 2.4 Legislations in CAAM

The implementation of a number of changes in political jurisdiction of cities, municipalities and provinces within CAAM has affected the absolute population count of these units at certain points in time. CAAM total population is not affected by the movement since the transfer of political jurisdiction happens only from one province to another. Some facts are as follows:

- 1. ARMM was created into a region under EO No. 429
- 2. CARAGA was created into a region under RA No. 7901 dated February 23, 1995, taken from Regions 10 and Region 11.
- 3. Pursuant to RA 9054, a plebiscite was conducted on 14 August 2001 to determine the areas that shall comprise ARMM. Cities of Marawi in Region XII and Isabela in Region IX joined the ARMM.
- 4. Executive Order No.36 dated 19 September 2001 was issued by President Gloria Macapagal Arroyo as a resultant administrative measure following the reconfiguration of ARMM. This realigned the regions in Mindanao. The provinces of Lanao del Norte and Iligan City of Region XII were transferred to Region X. The provinces of South Cotabato, Saranggani, and the cities of Koronadal and Gen. Santos of Region XI became part of the new Region XII, now collectively called SOCCSKSARGEN Region.
- 5. On October 29, 2006, Shariff Kabunsuan was established under Muslim Mindanao Autonomy Act No. 201 which provided for the creation of the new province comprising the municipalities of Barira, Buldon, Datu Odin Sinsuat, Kabuntalan, Matanog, Parang, Sultan Kudarat, Sultan Mastura, and Upi. The new municipality within the province,

- Northern Kabuntalan, was subsequently established after its creation was ratified by the affirmative majority votes cast in a plebiscite
- 6. On July 17, 2008, the Supreme Court, in Sema v. Comelec declared the creation of the province of Shariff Kabunsuan void and ruled that the power of ARMM's legislature to create provinces and cities is unconstitutional.
- 7. Isabela city belongs to the province of Basilan under Region IX while the rest of Basilan belongs to the ARMM.
- 8. Municiplaity of Akbar was created by Muslim Mindanao Autonomy Act No. 193, ratified by plebiscite on May 22, 2006. It is composed of 9 barangays that were formerly part of Tuburan.
- 9. Municipality of Al-Barka was created by Muslim Mindanao Autonomy Act No. 191, ratified by plebiscite on May 22, 2006. It is composed of 16 barangays that were formerly part of Tipo-Tipo.
- 10. Municipality of Hadji Mohammad Ajul was created by Muslim Mindanao Autonomy Act No. 192, ratified by plebiscite on May 22, 2006. It is composed of 11 barangays that were formerly part of Tuburan.
- 11. Hadji Muthtamad was created out of the 10 barangays of Lantawan that were not on Basilan Island, by virtue of Muslim Mindanao Autonomy Act No. 200, which was subsequently ratified in a plebiscite held on August 25, 2007.
- 12. Ungkaya Pukan was created by Muslim Mindanao Autonomy Act No. 193, ratified by plebiscite on May 22, 2006. It is composed of 12 barangays that were formerly part of Tipo-Tipo.
- 13. Tabuan Lasa was created out of the 12 barangays of Sumisip that were not on Basilan Island, by virtue of Muslim Mindanao Autonomy Act No. 187, which was subsequently ratified in a plebiscite held on March 29, 2008, making it the newest municipality in the country.
- 14. Datu Blah T. Sinsuat was formerly a part of the town of Upi, Datu Blah T. Sinsuat became another municipality after a plebiscite on September 16, 2006 and pursuant to the Muslim Mindanao Act No. 198 of the ARMM. The town was part of the province of Shariff Kabunsuan from October 2006 until its nullification by the Supreme Court in July 2008.

- 15. Northern Kabuntalan was created out of 11 barangays of Kabuntalan, by virtue of Muslim Mindanao Autonomy Act No. 205, which was subsequently ratified in a plebiscite held on December 30, 2006. The town was part of the province of Shariff Kabunsuan until its nullification by the Supreme Court in July 2008.
- 16. Lumbaca-Unayan was created from Lumbatan, Lanao del Sur in 2005. According to the 2007 census, it has the total population of 11,766.

### 3.0 DEMOGRAPHIC TRENDS

## 3.1 HUMAN DEVELOPMENT INDEX (HDI) RANKING, PHILIPPINES, MINDANAO, CAAM

Conceptualized by the United Nations Development Programme (UNDP), the Human Development Index (HDI) is an attempt to measure the level of human development in a given area. Although it is not as comprehensive so as to be able to measure all aspects of human develop, it can, however, provide an indication of the problem or issue. This was adopted in the Philippines in 1994, computing HDI up to the regional level. After 3 years, it included HDI computations up to the provincial level. The HDI covers three aspects, Life Expectancy Index (LEI), Education Index (EI) and Income Index (II).

Table H 3.1-1 Human Development Index, Selected Provinces

	ADMINISTRATIVE	1994	1997	2000	2003
	UNIT	SOURCE: NSCB	SOURCE: NSCB	SOURCE: NSCB	SOURCE: HDR
	PHILIPPINES	0.627	0.629	0.656	0.721
1	Maguindanao	0.449	0.425	0.461	0.36
2	Basilan	0.423	0.439	0.425	0.409
3	Zamboanga del Norte	0.472	0.51	0.532	0.446
4	Saranggani	0.529	0.494	0.516	0.448
5	Lanao del Sur	0.442	0.419	0.464	0.48
6	Sultan Kudarat	0.516	0.533	0.554	0.497
7	Davao Oriental	0.483	0.497	0.564	0.503
8	Lanao del Norte	0.473	0.47	0.512	0.557
9	Zamboanga del Sur	0.512	0.525	0.529	0.557
10	North Cotabato	0.517	0.519	0.553	0.566
11	South Cotabato	0.536	0.536	0.595	0.636

<sup>\*</sup> Data lacking for the provinces of Zamboanga Sibugay and Compostela Valley

The UNDP categorizes those countries with an index higher than 0.8 as having high human development while those that score between 0.5 and 0.79 as having medium human

development. Philippines has an HDI of 0.78 almost at the threshold of moving from medium to high development category.

All provinces in the CAAM region fall below the national average in the same year. As an example, Davao del Sur's 2003 HDI is 0.634 which is below the 0.721 HDI of the Philippines. In 2003, the CAAM province with the highest HDI is Misamis Oriental (0.650) followed closely by Davao del Sur (0.634). Based on the NSCB 2000 HDI ranking, 8 out 10 provinces belong to Mindanao, and also part of the CAAM. These are: Sulu (0.351), Tawi-Tawi (0.390), Basilan (0.425), Maguindanao (0.461), Lanao del Sur (0.464), Agusan del Sur (0.482), Lanao del Norte (0.512), and Sarangani (0.516).

### 3.2 POPULATION TRENDS IN CAAM

For any development intervention aimed at addressing basic service accessibility and availability to be effective the population dynamics of its target locality should be considered. The population, its size, distribution and structure dictate the type and range of services to be provided, as well as influence service delivery. A comprehensive understanding of population growth and its relation to development planning is critical to projecting future needs of the locality and its economy, identification of potentials and formulation of measures to mitigate the negative impact of development.

Table H 3.2-1 Population in the Philippines, Mindanao and CAAM, 1995, 2000 and 2007

AREA	POP	ULATION LE	VEL	% OF		APGR	
	1995	2000	2007	PHILIPPIN ES	95-00	00-07	95-07
Philippines	68,616,536	76,504,077	88,574,614	100%	2.36	2.04	2.15
Mindanao	16,205,487	18,133,794	21,582,540	24%	2.27	2.24	2.42
CAAM	4,445,161	5,044,293	6,516,313	7.36%	2.56	3.73	3.24

Source: NSO, 2007 Urban/ Rural Classification

### 3.3 URBAN/RURAL CLASSIFICATION

It is approximated that 48 percent of the national population are living in urban areas. Tawi tawi had the highest urban population with 27 percent while Lanao del Sur had the lowest at only 18 percent. Misamis Oriental registered a high urban population with 53 percent while Lanao del Norte had the lowest at only 20.2 percent. Davao del Sur registered a high urban population with 44 percent while Compostela Valley had the lowest at only 26 percent. South Cotabato had a higher than the national average with 49 percent of the population living in urban areas while Sarangani had merely 16 percent of its population classified as living in urban areas. Libungan, North Cotabato stated that only 12 percent of their population lived in urban areas while Bansalan, Davao del Sur had 30 percent. Baungon, Bukidnon reported that 37 percent of their population reside in urban areas.

Table H 3.3-1 Population Density and Classification

		POPULATION	N Opulation	LAND		NSITY	URBAN	
AREA	1995	2000	2007	AREA (KM²)	1995	2000	2007	RURAL
Philippines	68,616,536	76,504,077	88,574,614	300,000	229.00	255	296	
Mindanao	16,205,487	18,133,794	21,582,540	102,043	159.00	178	212	
CAAM	4,421,947	5,044,293	6,516,313	55,700	79.39	90.56	116.99	
Zamboanga del Norte	160,481	173,089	202,112	2,388.27	67.20	72.47	84.63	
Baliguian	12,671	15,631	20,540	490.72	25.82	31.85	41.86	Partially Urban
Kalawit	17,352	21,372	21,758	250.00	69.41	85.49	87.03	Partially Urban
Labason	28,515	33,528	40,420	331.50	86.02	101.14	121.93	Partially Urban
Salug	28,411	28,914	29,960	364.53	77.94	79.32	82.19	Partially Urban
Sibuco	23,243	24,411	28,101	225.82	102.93	108.10	124.44	Partially Urban
Siocon	28,196	32,699	41,221	503.20	56.03	64.98	81.92	Partially Urban
Sirawai	22,093	16,534	20,112	222.50	99.29	74.31	90.39	Partially Urban
Zamboanga del Sur	275,319	297,595	319,716	1,565.99	175.81	190.04	204.16	
Aurora	40,157	42,820	47,177	171.30	234.42	249.97	275.41	Partially Urban
Dimataling	23,116	25,843	26,902	141.80	163.02	182.25	189.72	Partially Urban
Dinas	28,364	31,570	33,738	121.10	234.22	260.69	278.60	Rural
Kumalarang	24,446	4,926	27,280	151.49	161.37	164.54	180.08	Partially Urban
Labangan	32,264	34,530	37,598	157.90	204.33	218.68	238.11	Partially Urban
Lapuyan	23,512	24,366	26,118	329.00	71.47	74.06	79.39	Partially Urban
Margosatubig	29,597	34,461	34,939	111.69	264.99	308.54	312.82	Partially Urban
San Pablo	23,147	23,450	25,575	149.90	154.42	156.44	170.61	Partially Urban
Tabina	20,210	21,882	23,798	86.90	232.57	251.81	273.86	Partially Urban
Tukuran	30,506	33,747	36,591	144.91	210.52	232.88	252.51	Partially Urban
Zamboanga Sibugay	450,340	497,239	546,186	3,457.64	130.24	143.81	157.96	
Alicia	27,959	29,954	32,289	197.74	141.40	151.48	163.29	Partially Urban
Buug	34,175	33,623	34,289	155.48	219.81	216.26	220.54	Partially Urban
Diplahan	25,818	23,909	28,010	158.87	162.51	150.49	176.31	Partially Urban
Imelda	22,760	21,534	24,787	77.77	292.66	276.89	318.72	Partially Urban
Ipil	43,991	52,481	60,686	91.10	482.89	576.08	666.15	Partially Urban
Kabasalan	34,483	37,619	40,169	289.20	119.24	130.08	138.90	Partially Urban
Mabuhay	19,512	25,199	30,589	82.85	235.51	304.15	369.21	Partially Urban
Malangas	28,916	29,770	29,834	133.71	216.25	222.64	223.12	Partially Urban

	I	POPULATION	N	LAND	POP	ULATION DE	ENSITY	URBAN
AREA	1995	2000	2007	AREA (KM²)	1995	2000	2007	RURAL
Naga	31,421	35,176	37,349	168.37	186.61	208.91	221.82	Partially Urban
Olutanga	17,069	22,624	27,521	73.10	233.50	309.49	376.48	Partially Urban
Payao	25,013	27,036	27,623	230.00	108.75	117.55	120.10	Partially Urban
RT Lim	31,291	34,152	34,952	488.00	64.12	69.98	71.62	Partially Urban
Siay	29,303	32,844	33,902	169.99	172.38	193.21	199.43	Partially Urban
Talusan	15,012	18,394	22,875	58.16	258.12	316.27	393.31	Partially Urban
Titay	35,065	39,730	43,723	610.00	57.48	65.13	71.68	Partially Urban
Tungawan	28,552	33,194	37,588	473.30	60.33	70.13	79.42	Partially Urban
Lanao del Norte	243,774	268,367	321,217	12,406.79	19.65	21.63	25.89	
Bacolod	16,454	17,020	19,872	10,410.00	1.58	1.63	1.91	Partially Urban
Baloi	32,063	38,534	44,366	69.38	462.11	555.37	639.42	Partially Urban
Kauswagan	18,349	15,364	23,087	50.56	362.88	303.85	456.58	Partially Urban
Linamon	14,529	14,959	16,340	22.19	654.82	674.20	736.44	Partially Urban
Magsaysay	10,279	11,218	12,298	98.07	104.81	114.39	125.40	Partially Urban
Matungao	8,451	9,266	9,984	45.61	185.28	203.14	218.88	Rural
Munai	13,893	15,972	20,594	32.59	426.30	490.09	631.91	Rural
Nunungan	10,763	12,205	13,999	486.41	22.13	25.09	28.78	Rural
Pantao Ragat	14,637	16,474	20,097	96.20	152.15	171.24	208.90	Partially Urban
Pantar	11,704	12,826	15,720	728.00	16.08	17.62	21.59	Partially Urban
Poona Pingapo	14,161	16,092	19,818	93.45	151.54	172.20	212.07	Rural
Salvador	14,834	17,055	23,222	113.99	130.13	149.62	203.72	Partially Urban
Sapad	14,595	15,167	17,191	80.68	180.89	187.98	213.07	Partially Urban
Sultan N. Dimaporo	36,131	41,865	46,004	0.15	244,46.84	283,262.64	311,267.51	Partially Urban
Tagoloan	8,027	8,233	9,274	79.38	101.12	103.72	116.83	Rural
Tangcal	4,904	6,117	9,351	0.12	42,516.56	53,032.99	81,071.03	Rural
Compostela Valley	56780	61,801	69,656	420.13	135.15	147.10	165.80	
Pantukan	56,780	61,801	69,656	420.13	135.15	147.10	165.80	
Davao Oriental	19779	22,846	24,363	300.76	65.76	75.96	81.00	
Tarragona	19,779	22,846	24,363	300.76	65.76	75.96	81.00	
North Cotabato Aleosan	<b>649,109</b> 25,408	<b>715,668</b> 26,164	<b>847,066</b> 32,874	<b>4,732.70</b> 193.30	137.15 131.44	151.22 135.35	178.98 170.07	Rural
Alamada	38,949	44,303	52,165	787.50	49.46	56.26	66.24	Partially
	,	•					67.98	Urban Partially
Arakan	27,554	34,588	38,717	569.50	48.38	60.73	07.98	Urban

	P	OPULATION	J	LAND	POPI	ULATION DE	NSITY	URBAN
AREA	1995	2000	2007	AREA (KM²)	1995	2000	2007	RURAL
Banisilan	29,352	35,539	36,567	221.90	132.28	160.16	164.79	Partially Urban
Carmen	40,261	45,909	65,670	722.30	55.74	63.56	90.92	Rural
Kabacan	61,481	61,998	73,991	236.00	260.51	262.70	313.52	Partially Urban
Libungan	37,202	40,589	43,923	172.50	215.66	235.30	254.63	Partially Urban
M'lang	71,846	78,170	86,321	367.50	195.50	212.71	234.89	Partially Urban
Makilala	61,125	63,039	71,543	307.50	198.78	205.00	232.66	Partially Urban
Matalam	54,463	60,146	66,204	476.00	114.42	126.36	139.08	Partially Urban
Midsayap	96,771	105,760	123,324	233.40	414.61	453.13	528.38	partially urban
Pigcawayan	46,788	51,008	59,395	168.60	277.51	302.54	352.28	partially urban
Pikit	57,909	68,455	96,372	276.70	209.28	247.40	348.29	partially urban
Saranggani	228,046	256,611	307,649	2,475.62	92.12	103.66	124.27	ui ouii
Glan	73,768	83,051	102,676	697.60	105.75	119.05	147.18	
Kiamba	39,717	44,724	53,040	328.68	120.84	136.07	161.37	partially urban
Maasim	31,641	39,424	49,274	500.43	63.23	78.78	98.46	partially urban
Maitum	35,009	35,536	37,054	324.35	107.94	109.56	114.24	partially urban
Malapatan	47,911	53,876	65,605	624.56	76.71	86.26	105.04	partially urban
South Cotabato	142,930	164,149	189,215	567.87	251.69	289.06	333.20	
Polomolok	96,274	110,709	131,436	339.87	283.27	325.74	386.72	partially urban
Tupi	228	53,440	57,779	228.00	1.00	234.39	253.42	partially urban
Sultan Kudarat	452,365	510,151	593,098	5,097.94	88.73	100.07	116.34	
Bagumbayan	45,584	53,444	57,133	672.06	67.83	79.52	85.01	partially urban
COLUMBIO	21,511	21,698	23,675	926.15	23.23	23.43	25.56	partially urban
Esperanza	43,374	47,578	52,731	324.29	133.75	146.71	162.60	partially urban
Isulan	65,202	73,129	79,277	541.25	120.47	135.11	146.47	partially urban
Kalamansig	35,900	44,645	45,263	699.20	51.34	63.85	64.74	partially urban
Lambayong	46,636	51,192	60,372	226.88	205.55	225.63	266.10	partially urban
Lebak	61,884	70,899	77,139	470.86	131.43	150.57	163.83	partially urban
Lutayan	34,654	40,881	51,640	271.00	127.87	150.85	190.55	partially urban
Palimbang	40,646	43,742	77,105	484.85	83.83	90.22	159.03	partially urban
President Quirino	28,206	32,721	33,595	208.40	135.35	157.01	161.20	partially urban
Sen. Ninoy Aquino	28,768	30,222	35,168	273.00	105.38	110.70	128.82	partially urban
Basilan	227,008	259,796	434,479	2,149.46	105.61	120.87	202.13	
Lamitan	54,433	58,709	82,074	264.44	205.84	222.01	310.37	Partially Urban

	P	OPULATION	I	LAND	POPI	ULATION DE	NSITY	URBAN
AREA	1995	2000	2007	AREA (KM²)	1995	2000	2007	RURAL
Lantawan	16,861	18,206	28,978	305.84	55.13	59.53	94.75	Rural
Maluso	26,844	31,054	48,178	168.46	159.35	184.34	285.99	Partially Urban
Sumisip	42,003	51,712	71,807	567.60	74.00	91.11	126.51	Partially Urban
Tipo-tipo	15,614	15,035	26,548	224.40	69.58	67.00	118.31	Rural
Tuburan	11,591	17,429	26,498	454.00	25.53	38.39	58.37	Rural
AKBAR	8,518	10,581	21,312	6.88	1,237.88	1,537.69	3,097.17	Partially Urban
Al-Barka	17,939	17,189	26,229	64.68	277.34	265.74	405.50	Rural
Hadji Mohammad Ajul	11,140	14,540	26,132	50.43	220.88	288.30	518.15	Partially Urban
Ungkaya Pukan	13,313	16,060	30,472	42.72	311.60	375.89	713.22	Rural
Hadji Muhtamad	8,752	9,281	20,292					Rural
Tabuan Lasa			25,959					Partially Urban
Lanao del Sur	571,922	669,072	961,153	12,947.2	44.17	51.68	74.24	
Bacolod Kalawi	16,145	17,761	20,564	491.57	32.84	36.13	41.83	Partially Urban
Balabagan	21,557	24,558	33,421	230.00	93.73	106.77	145.31	Partially Urban
Balindong (Watu)	21,825	24,470	30,295	286.50	76.18	85.41	105.74	Rural
Bayang	20,060	21,020	24,185	107.41	186.76	195.70	225.17	Rural
Binidayan	16,157	18,081	21,569	189.56	85.23	95.38	113.78	Urban
Buadiposo-Buntong Bubong	11,657 14,054	13,535 19,003	19,316 23,148	82.00 790.00	142.16 17.79	165.06 24.05	235.56 29.30	Rural Rural
Bumbaran	6,001	6,589	13,297	544.00	11.03	12.11	24.44	Rural
Butig	13,722	16,283	22,256	331.49	41.39	49.12	67.14	Partially Urban
Ditsaan-Ramain	16,285	19,157	25,425	375.49	43.37	51.02	67.71	Partially Urban
Ganassi	16,947	18,947	25,456	256.00	66.20	74.01	99.44	Partially Urban
Calanogas	8,577	9,989	21,847	391.58	21.90	25.51	55.79	Partially Urban
Kapai	13,310	16,564	18,916	1,086.40	12.25	15.25	17.41	Rural
Kapatagan	6,702	7,804	19,598	288.13	23.26	27.08	68.02	Partially Urban
Lumba-Bayabao (Maguing)	21,003	23,521	57,304	640.62	32.79	36.72	89.45	Partially Urban
Lumbatan	11,869	13,318	24,036	123.90	95.79	107.49	194.00	Partially Urban
Lumbayanague	10,421	12,835	21,717	302.18	34.49	42.47	71.87	Partially Urban
Madalum	15,838	18,405	25,585	498.38	31.78	36.93	51.34	Partially Urban
Madamba	11,914	15,442	19,587	225.00	52.95	68.63	87.05	Partially Urban
Malabang	28,840	33,177	41,024	165.38	174.39	200.61	248.06	Partially Urban
Marantao	20,942	24,647	32,075	550.00	38.08	44.81	58.32	Partially Urban
Marogong	13,765	16,165	21,120	368.72	37.33	43.84	57.28	Partially Urban
Masui	20,042	24,105	30,196	175.59	114.14	137.28	171.97	Partially Urban
Mulondo	11,866	12,368	16,458	458.67	25.87	26.96	35.88	Partially Urban

1001	P	OPULATION		LAND	POPU	JLATION DE	NSITY	URBAN
AREA	1995	2000	2007	AREA (KM²)	1995	2000	2007	RURAL
Pagayawan (Tatarikan)	8,900	9,757	18,374	431.00	20.65	22.64	42.63	Rural
Piagapo	19,198	23,903	34,792	260.07	73.82	91.91	133.78	Partially Urban
Poona Bayabao (Gata)	15,149	17,390	23,589	280.00	54.10	62.11	84.25	Partially Urban
Pualas	8,259	7,887	17,962	121.93	67.74	64.68	147.31	Partially Urban
Saguiaran	18,703	22,636	23,274	154.91	120.73	146.12	150.24	Partially Urban
Sultan Dumalondong	6,376	11,105	16,693	51.35	124.17	216.26	325.08	Rural
Picong (Sultan Gumander)	10,503	12,230	23,487	277.56	37.84	44.06	84.62	Partially Urban
Tagoloan II	7,760	8,714	11,144	79.38	97.76	109.78	140.39	Rural
Tamparan	17,507	19,975	27,875	370.00	47.32	53.99	75.34	Partially Urban
Taraka	16,505	18,832	28,196	300.00	55.02	62.77	93.99	Partially Urban
Tubaran	9,617	11,021	20,358	495.60	19.40	22.24	41.08	Rural
Tugaya	17,552	20,139	24,017	155.00	113.24	129.93	154.95	Partially Urban
Wao	27,503	35,517	42,186	354.59	77.56	100.16	118.97	Partially Urban
Lumbaca-Unayan	3,234	4,127	11,766	42.28	76.49	97.61	278.29	Partially Urban
Maguing	15,657	18,095	29,045	615.04	25.46	29.42	47.22	Rural
Maguindanao	352,751	435,254	710,829	2,911.70	121.15	149.48	244.13	D
Ampatuan	13,353	16,996	33,702	291.83	45.76	58.24	115.49	Partially Urban
Buluan	20,611	29,841	32,310	343.30	60.04	86.92	94.12	Partially Urban
Datu Abdullah Sangki	13,847	15,911	33,259	214.87	64.44	74.05	154.79	Rural
Datu Anggal Midtimbang	8,726	10,628	23,713	42.16	206.97	252.09	562.45	Partially Urban
Datu Paglas	15,522	20,014	29,979	132.10	117.50	151.51	226.94	Partially Urban
Datu Piang	31,464	39,794	49,971	112.64	279.33	353.28	443.63	Partially Urban
Datu Saudi Ampatuan	23,640	27,509	45,126	60.16	392.95	457.26	750.10	Partially Urban
Datu Unsay	10,548	13,055	38,891	95.39	110.58	136.86	407.71	Rural
Gen. SK. Pendatun	16,076	22,542	36,038	189.36	84.90	119.04	190.31	Rural
Guindulungan	13,244	14,894	23,777	115.00	115.17	129.51	206.76	Partially Urban
Mangudadatu	9,498	10,993	24,300					Rural
Mamasapano	16,121	20,059	29,285	76.58	210.51	261.94	382.41	Partially Urban
Pagagawan	23,962	27,010	32,995	82.13	291.76	328.87	401.74	Partially Urban
Pagalungan	22,439	25,908	31,052	349.37	64.23	74.16	88.88	Partially Urban
Paglat	4,204	5,832	23,432	77.53	54.22	75.22	302.23	Partially Urban
Pandag	8,586	10,264	20,557					Partially Urban
Sharif Aguak,Maganoy	26,441	36,476	71,971	92.11	287.06	396.00	781.36	Partially Urban
South Upi	23,186	28,186	32,014	235.20	98.58	119.84	136.11	Partially Urban

ADEA	F	POPULATION	1	LAND	POP	ULATION DE	NSITY	URBAN
AREA	1995	2000	2007	AREA (KM²)	1995	2000	2007	RURAL
Sultan sa Barongis	13,625	18,518	25,767	129.30	105.38	143.22	199.28	Rural
Talayan	13,001	14,772	25,753	135.50	95.95	109.02	190.06	Partially Urban
Talitay	8,315	9,861	21,964	65.19	127.55	151.27	336.92	Rural
Rajah Buayan	16,342	16,191	24,973	71.98	227.04	224.94	346.94	partially urban
Shariff Kabunsuan	614,557	712,655	989,574	3,633.23	169.15	196.15	272.37	
Barira	17,825	18,296	27,607	380.00	46.91	48.15	72.65	Partially Urban
Buldon	24,209	26,903	36,937	357.20	67.77	75.32	103.41	Rural
Datu Odin Sinsuat (Dinaig)	59,841	71,569	103,765	503.20	118.92	142.23	206.21	Rural
Kabuntalan (Tumbao)	12,213	13,464	22,363	219.34	55.68	61.38	101.96	Rural
Matanog	16,018	19,006	36,319	53.39	300.02	355.98	680.26	Partially Urban
Parang	49,562	60,935	102,247	234.59	211.27	259.75	435.85	Partially Urban
Sultan Kudarat (Nuling)	61,745	78,951	121,324	611.51	100.97	129.11	198.40	Partially Urban
Upi	34,419	38,225	41,757	896.00	38.41	42.66	46.60	Partially Urban
Datu Blah T. Sinsuat	12,021	12,916	22,656	147.21	81.66	87.74	153.90	Partially Urban
Sultan Mastura	14,380	15,910	25,741	114.36	125.74	139.12	225.09	Partially Urban
Northern Kabuntalan	7,196	9,673	22,170	116.43	61.81	83.08	190.41	Rural
Marawi City	114,389	131,090	177,391	87.55	1,306.56	1,497.32	2,026.17	Urban
Pagadian City	125,182	142,685	161,312	333.80	375.02	427.46	483.26	Partially Urban
Isabela City	65,557	73,032	87,985	223.73	293.02	326.43	393.26	Partially Urban

### 3.4 PROJECTED POPULATION IN CAAM

Table H 3.4-1 Projected CAAM Population & Annual Population Growth Rate

AREA	PROJECTED				APGR		
ANLA	2009	2011	2017	2023	95-00	00-07	95-07
Zamboanga del Norte	211,545	221,545	255,331	295,703	1.52	2.24	1.94
Baliguian	22,207	24,009	30,342	38,346	4.29	3.98	4.11
Kalawit	21,870	21,982	22,322	22,667	4.26	0.26	1.90
Labason	42,638	44,977	52,793	61,968	3.29	2.71	2.95
Salug	30,266	30,575	31,520	32,495	0.35	0.51	0.44
Sibuco	29,254	30,455	34,360	38,767	0.99	2.03	1.59
Siocon	44,041	47,054	57,387	69,988	3.01	3.36	3.22
Sirawai	21,270	22,494	26,607	31,472	(5.63)	2.84	(0.78)
Zamboanga del Sur	326,372	333,183	354,589	377,540	1.57	1.03	1.25
Aurora	48,501	49,863	54,181	58,874	1.29	1.39	1.35
Dimataling	27,212	27,527	28,491	29,488	2.26	0.58	1.27

AREA	PROJECTED				APGR		
AKLA	2009	2011	2017	2023	95-00	00-07	95-07
Dinas	34,384	35,043	37,096	39,269	2.16	0.95	1.46
Kumalarang	27,993	28,724	31,034	33,529	0.39	1.30	0.92
Labangan	38,524	39,472	42,460	45,673	1.37	1.22	1.28
Lapuyan	26,641	27,175	28,842	30,610	0.72	1.00	0.88
Margosatubig	35,077	35,215	35,633	36,057	3.09	0.20	1.39
San Pablo	26,217	26,875	28,949	31,184	0.26	1.25	0.83
Tabina	24,376	24,967	26,830	28,831	1.60	1.21	1.37
Tukuran	37,447	38,322	41,075	44,024	2.04	1.16	1.53
Zamboanga Sibugay	561,465	577,370	629,143	687,707	2.00	1.35	1.62
Alicia	32,989	33,704	35,944	38,333	1.39	1.08	1.21
Buug	34,482	34,675	35,263	35,861	(0.33)	0.28	0.03
Diplahan	29,306	30,662	35,118	40,222	1.52)	2.29	0.68
Imelda	25,804	26,862	30,305	34,188	(1.10)	2.03	0.71
Ipil	63,258	65,938	74,681	84,584	3.59	2.10	2.72
Kabasalan	40,929	41,703	44,115	46,666	1.76	0.94	1.28
Mabuhay	32,331	34,172	40,348	47,641	5.25	2.81	3.82
Malangas	29,852	29,871	29,926	29,981	0.58	0.03	0.26
Naga	37,994	38,650	40,688	42,833	2.28	0.86	1.45
Olutanga	29,106	30,782	36,411	43,069	5.80	2.84	4.06
Payao	27,793	27,964	28,484	29,013	1.57	0.31	0.83
RT Lim	35,184	35,418	36,127	36,852	1.77	0.33	0.93
Siay	34,210	34,522	35,473	36,450	2.31	0.45	1.22
Talusan	24,345	25,910	31,234	37,652	4.15	3.16	3.57
Titay	44,936	46,182	50,133	54,422	2.53	1.38	1.86
Tungawan	38,947	40,355	44,893	49,941	3.06	1.79	2.32
Lanao del Norte	338,739	357,511	422,501	503,492	1.94	2.60	2.33
Bacolod	20,771	21,711	24,795	28,316	0.68	2.24	1.59
Baloi	46,189	48,087	54,261	61,228	3.75	2.03	2.74
Kauswagan	25,936	29,136	41,308	58,563	(3.49)	5.99	1.93
Linamon	16,757	17,186	18,537	19,994	0.59	1.27	0.98
Magsaysay	12,625	12,961	14,024	15,173	1.76	1.32	1.51
Matungao	10,199	10,419	11,107	11,841	1.86	1.07	1.40
Munai	22,145	23,813	29,609	36,816	2.83	3.70	3.33
Nunungan	14,558	15,140	17,029	19,153	2.55	1.98	2.21
Pantao Ragat	21,271	22,515	26,697	31,656	2.39	2.88	2.68
Pantar Pingana	16,661	17,658	21,022	25,028	1.85	2.95	2.49
Poona Pingapo	21,033	22,323	26,685	31,901	2.59	3.02	2.84
Salvador	25,363	27,701	36,091	47,021	2.83	4.51	3.81
Sapad	17,817	18,467	20,560	22,890	0.77	1.81	1.37
Sultan N. Dimaporo	47,260	48,550	52,637	57,067	2.99	1.36	2.03
Tagoloan	9,595	9,927	10,994	12,175	0.51	1.72	1.21

A DELA		PROJECTED					
AREA	2009	2011	2017	2023	95-00	00-07	95-07
Tangcal	10,557	11,917	17,146	24,669	4.52	6.25	5.53
Compostela Valley	24,815	25,275	26,707	28,219	2.93	0.92	1.75
Pantukan	72,078	74,585	82,640	91,565	1.71	1.72	1.72
Davao Oriental	24,815	25,275	26,707	28,219	2.93	0.92	1.75
Tarragona	24,815	25,275	26,707	28,219	2.93	0.92	1.75
North Cotabato	890,274	936,378	1,094,558	1,288,808	1.97	2.44	2.24
Aleosan	35,090	37,455	45,550	55,396	0.59	3.32	2.17
Alamada	54,657	57,269	65,877	75,778	2.61	2.36	2.46
Arakan	39,985	41,294	45,485	50,101	4.65	1.62	2.87
Banisilan	36,866	37,168	38,087	39,030	3.90	0.41	1.85
Carmen	72,742	80,576	109,513	148,842	2.66	5.25	4.16
Kabacan	77,826	81,859	95,257	110,847	0.17	2.56	1.56
Libungan	44,925	45,950	49,166	52,608	1.76	1.13	1.39
M'lang	88,802	91,355	99,461	108,287	1.70	1.43	1.54
Makilala	74,177	76,908	85,719	95,540	0.62	1.82	1.32
Matalam	68,044	69,936	75,932	82,442	2.00	1.38	1.64
Midsayap	128,858	134,641	153,593	175,212	1.79	2.22	2.04
Pigcawayan	62,035	64,793	73,824	84,113	1.74	2.20	2.01
Pikit	106,266	117,175	157,094	210,612	3.40	5.01	4.34
Saranggani	324,198	341,719	400,712	470,781	2.39	2.63	2.53
Glan	109,091	115,907	139,019	166,739	2.40	3.08	2.79
Kiamba	55,688	58,469	67,672	78,323	2.40	2.47	2.44
Maasim	52,516	55,971	67,762	82,036	4.50	3.24	3.76
Maitum	37,500	37,950	39,336	40,772	0.30	0.60	0.47
Malapatan	69,403	73,421	86,924	102,911	2.37	2.85	2.65
South Cotabato	197,124	205,393	232,549	263,634	2.81	2.05	2.37
Polomolok	138,041	144,979	167,953	194,568	2.83	2.48	2.63
Tupi	59,082	60,415	64,596	69,066	2.75	1.12	1.80
Sultan Kudarat	622,121	654,158	773,243	940,955	2.43	2.18	2.28
Bagumbayan	58,233	59,354	62,849	66,550	3.23	0.96	1.90
Columbio	24,272	24,885	26,816	28,897	0.17	1.25	0.80
Esperanza	54,303	55,922	61,075	66,703	1.87	1.48	1.64
Isulan	81,127	83,019	88,967	95,341	2.32	1.16	1.64
Kalamansig	45,441	45,620	46,161	46,708	4.46	0.20	1.95
Lambayong	63,285	66,339	76,413	88,018	1.88	2.38	2.17
Lebak	79,021	80,948	87,018	93,542	2.76	1.21	1.85
Lutayan	55,205	59,015	72,100	88,086	3.36	3.39	3.38
Palimbang	90,661	106,600	173,290	281,701	1.48	8.43	5.48
President Quirino	33,849	34,105	34,884	35,681	3.01	0.38	1.47
Sen. Ninoy Aquino	36,724	38,350	43,670	49,728	0.99	2.19	1.69
Basilan	317,997	356,134	501,763	710,300	2.73	7.62	5.56
Lamitan	90,319	99,391	132,454	176,514	1.52	4.90	3.48
Lantawan	33,093	37,793	56,290	83,840	1.55	6.87	4.62

4 D.T. 4		PROJE	ECTED		APGR		
AREA	2009	2011	2017	2023	95-00	00-07	95-07
Maluso	54,619	61,921	90,224	131,464	2.96	6.47	4.99
Sumisip	78,868	86,624	114,775	152,073	4.25	4.80	4.57
Tipo-tipo	31,231	36,740	59,812	97,373	(0.75)	8.46	4.52
Tuburan	29,867	33,665	48,209	69,036	8.50	6.17	7.13
Akbar	26,032	31,798	57,949	105,610	4.43	10.52	7.94
Al-Barka	29,595	33,393	47,970	68,910	(0.85)	6.22	3.22
Hadji Mohammad Ajul	30,897	36,531	60,381	99,801	5.47	8.74	7.36
Ungkaya Pukan	36,591	43,939	76,079	131,730	3.82	9.58	7.14
Hadji Muhtamad	25,374	31,729	62,037	121,297	1.18	11.82	7.26
Lanao del Sur	1,065,960	1,182,196	1,612,631	2,199,786	3.19	5.31	4.42
Bacolod Kalawi	24,635	29,512	50,737	87,228	1.93	9.45	2.04
Balabagan	35,487	37,681	45,110	54,004	2.64	3.04	3.72
Balindong (Watu)	32,201	34,227	41,101	49,356	2.31	3.10	2.77
Bayang	24,364	24,544	25,092	25,653	0.94	0.37	1.57
Binidayan	21,980	22,399	23,704	25,085	2.28	0.95	2.44
<b>Buadipo-Buntong</b>	22,517	26,248	41,577	65,859	3.03	7.97	4.30
Bubong	24,490	25,911	30,685	36,340	6.22	2.86	4.25
Bumbaran	16,251	19,861	36,256	66,183	1.89	10.55	6.85
Butig	24,334	26,607	34,779	45,462	3.48	4.57	4.11
Ditsaan-Ramain	27,567	29,889	38,096	48,557	3.30	4.13	3.78
Ganassi	27,697	30,135	38,815	49,996	2.26	4.31	3.45
Calanogas	27,321	34,167	66,822	130,688	3.09	11.83	8.10
Kapai	19,647	20,407	22,867	25,623	4.47	1.91	2.97
Kapatagan	25,496	33,168	73,028	160,789	3.09	14.06	9.35
Lumba-Bayabao (Maguing)	73,906	95,318	204,482	438,669	2.29	13.57	8.72
Lumbatan	28,453	33,681	55,870	92,677	2.33	8.80	6.06
Lumbayanague	25,238	29,330	46,035	72,255	4.26	7.80	6.31
Madalum	28,110	30,884	40,958	54,320	3.05	4.82	4.08
Madamba	20,964	22,438	27,510	33,729	5.32	3.46	4.23
Malabang	43,589	46,315	55,559	66,647	2.84	3.08	2.98
Marantao	34,582	37,285	46,730	58,568	3.31	3.83	3.62
Marogong	22,797	24,606	30,944	38,914	3.27	3.89	3.63
Masui	32,204	34,345	41,660	50,535	3.76	3.27	3.47
Mulondo	17,858	19,377	24,753	31,622	0.83	4.17	2.76
Pagayawan (Tatarikan)	22,016	26,380	45,384	78,076	1.86	9.46	6.23
Piagapo Poona Bayabao (Gata)	38,731	43,116 28,078	59,481	82,056	4.48	5.51 4.45	5.08 3.76
	25,736 22,724	28,748	36,464 58,209	47,354 117,860	(0.92)	12.48	6.69
Pualas Saguiaran	23,460	23,647	24,217	24,801	3.89	0.40	1.84
Sultan Dumalondong	18,755	21,071	29,882	42,378	11.74	6.00	8.35
Picong(Sultan	28,301	34,101	59,660	104,376	3.09	9.77	6.94
Gumander) Tagoloan II	11,955	12,826	15,836	19,553	2.35	3.58	3.06
i aguluan 11	11,933	12,020	13,630	17,333	2.33	5.50	3.00

AREA		PROJI	ECTED		APGR		
AKLA	2009	2011	2017	2023	95-00	00-07	95-07
Tamparan	30,660	33,722	44,871	59,707	2.67	4.88	3.95
Taraka	31,642	35,510	50,188	70,934	2.67	5.94	4.56
Tubaran	24,260	28,909	48,918	82,777	2.76	9.16	6.45
Tugaya	25,256	26,560	30,887	35,920	2.79	2.55	2.65
WAO	44,312	46,545	53,941	62,513	5.25	2.49	3.63
LUMBACA-UNAYAN	15,872	21,410	52,556	129,008	5.00	16.14	11.36
MAGUING	33,250	38,063	57,103	85,667	2.94	6.99	5.28
Maguindanao	802,776	947,383	1,643,539	3,120,864	4.29	7.26	6.01
Ampatuan	40,983	49,836	89,615	161,146	4.94	10.27	8.02
Buluan	33,052	33,812	36,196	38,748	7.68	1.14	3.82
Datu Abdullah Sangki	41,058	50,686	95,357	179,400	2.82	11.11	7.58
Datu Anggal Midtimbang	29,824	37,510	74,627	148,470	4.02	12.15	8.69
Datu Paglas	33,648	37,765	53,396	75,496	5.21	5.94	5.64
Datu Piang	53,330	56,916	69,184	84,096	4.81	3.31	3.93
Datu Saudi Ampatuan	51,981	59,877	91,517	139,877	3.08	7.33	5.54
Datu Unsay	53,125	72,568	184,967	471,458	4.36	16.88	11.49
Gen. SK. Pendatun	41,208	47,119	70,446	105,321	6.99	6.93	6.96
Guindulungan	27,177	31,063	46,384	69,261	2.38	6.91	5.00
Mangudadatu	30,481	38,235	75,463	148,940	2.97	12.00	8.14
Mamasapano	32,629	36,354	50,282	69,546	4.47	5.55	5.10
Pagagawan	34,937	36,993	43,916	52,135	2.42	2.90	2.70
Pagalungan	32,701	34,438	40,221	46,976	2.92	2.62	2.74
Paglat	34,864	51,874	170,866	562,810	6.77	21.98	15.39
Pandag	25,069	30,572	55,447	100,561	3.63	10.43	7.55
Sharif Aguak(Maganoy)	87,395	106,124	190,021	340,241	6.65	10.20	8.70
South Upi	33,200	34,431	38,402	42,831	3.98	1.84	2.73
Sultan sa Barongis	28,318	31,121	41,307	54,827	6.33	4.83	5.45
Talayan	30,185	35,381	56,973	91,743	2.59	8.26	5.86
Talitay	27,611	34,710	68,953	136,981	3.47	12.12	8.43
Rajah Buayan	28,264	31,990	46,379	67,241	(0.19)	6.39	3.60
Shariff Kabunsuan	554,962	626,405	907,640	1,329,157	3.41	6.35	5.11
Barira	31,050	34,923	49,688	70,696	0.52	6.05	3.71
Buldon	40,438	44,272	58,092	76,228	2.13	4.63	3.58
Datu Odin Sinsuat (Dinaig)	115,384	128,303	176,407	242,547	3.64	5.45	4.69
Kabuntalan (Tumbao)	25,852	29,885	46,166	71,318	1.97	7.52	5.17
Matanog	43,701	52,583	91,603	159,579	3.48	9.69	7.06
Parang	118,543	137,435	214,176	333,766	4.22	7.67	6.22
Sultan Kudarat(Nulling)	137,170	155,085	224,131	323,919	5.04	6.33	5.79
Upi	42,825	43,920	47,376	51,104	2.12	1.27	1.62
Datu Blah T. Sinsuat	26,602	31,235	50,563	81,851	1.45	8.36	5.42
Sultan Mastura	29,534	33,887	51,184	77,310	2.04	7.12	4.97
Northern Kabuntalan	28,098	35,612	72,501	147,601	6.09	12.58	9.83
Pagadian City	167,067	173,028	192,217	213,535	2.65	1.77	2.14
-							
Isabela City	92,794	97,867	114,808	134,683	2.18	2.70	2.48
Marawi City	193,403	210,861	273,270	354,150	2.76	4.42	3.72

Estimated population levels were computed for each of the 151 municipalities of CAAM using 2007 census data on population, life expectancy and fertility levels. This formed among the bases for determining service level and facilities needed by the population.

There were 4.912 million people living in conflict affected areas in year 2007. A greater number (15%) were located in North Cotabato, spread in 13 municipalities. On the other hand, 669,072 people live in Lanao del Sur which has the most number of municipalities affected by the conflict (40). If the current growth trend continues, there will be 8.443 million people affected by the conflict in Mindanao. The ranking of provinces in terms of population affected will slightly change, with Maguindanao and Sarangani will be up by one notch each.

Population trend provides an overview of the behavior in the recent past and how it influences future quality of life. It becomes necessary to determine the population size, its size and characteristics, at city and municipal levels, which would serve as basis for estimating future needs and potentials in the action plan, short-term, medium-term and long range planning phases.

The projected population distribution in CAAM replicates that of the national level. Using the 2000-2007 Average Annual Population Growth Rate of CAAM pegged at 3.64 percent, population projections were computed. This projection does not account massive population movement or migration outside CAAM.

As shown in the figure, if the 3.64 percent persists, except for a slight downturn in population between 2007 and 2009, from a 6.5M figure in 2007, CAAM population is expected to grow, to 6.9 million in 2011 to 9.05 million in 2017, and will be two-folds higher in 2023 at a figure of 12.43 million.

Based from the NSO data, the population of the conflict affected areas in Zamboanga Peninsula is expected to grow at a moderate pace. From 2007 figure of half a million, Zamboanga Sibugay will post an increase of about 120,000 placing its 2023 population at 687,707.

Lanao del Norte is the only conflict-affected province in Region X. In 2007, Lanao del Norte is home to more than three hundred thousand individuals affected by conflict or a total population of 3338,739. In the next two years (2009), almost 20,000 people will be added to its population, registering 357,511. It will continuously exhibit accelerated growths equivalent to 503,492 in 2023.

Across the conflict-affected provinces of Compostella Valley and Davao Oriental, population is expected to display accelerated growths in the years to come with figures at 91,565 and 28,219, respectively.

North Cotabato breached the 800 thousand mark with 890,274 persons in 2009 while Sultan Kudarat registered a population of 622,121. In the same year, Sarangani and South Cotabato populations are pegged at 324,198 and 197,124, respectively. The four provinces are expected to showcase accelerated growths from 2007 to 2009, 2011, 2017, and 2023. North Cotabato will breach the 1.2 million mark by 2023. Saranggani province will grow to 470,781 on the same year. South Cotabato will grow to 263,634 and Sultan Kudarat will be placed at 940,955.

Among the Conflict Affected Regions in Mindanao, provinces in ARMM are considered to be the fastest growing provinces. The highest gainer would be Maguindanao with a projected population over 3 million. In its conflict affected provinces, Lanao del Sur listed 1,065,960 population in 2007. Maguindanao and Shariff Kabunsuan registered 802,776 and 554,962 on the same year, respectively, while Basilan recorded 317,997. The provinces are anticipated to exhibit accelerating trends in 2009 onwards. If the current annual population growth rate remains, these provinces will peak by 2023. Maguindanao, Lanao del Sur, and Shariff Kabunsuan in particular will be twice higher than their 2007 population. They are expected to register 3.12 million, 2.19 million and 1.33 million, respectively. On the other hand, Basilan, will record 710,300 population.

By 2023, the three cities of Pagadian, Marawi and Isabela shall still be considered as large towns and urban centers. However, Marawi City may be classified as a regional metropolitan center when its population reaches 400,000 persons. From a population of 167,067 individuals, the population of the city of Pagadian will increase to 213,535 by 2023. In a similar manner, Isabela city is expected to grow by 40,000 plus individuals in the same year. Among the three, Marawi City will register the highest population pegged at 354,150 in 2023.

About 67 municipalities shall still be considered as small towns with population less than 50,000; 62 medium towns with a population ranging from 50,000 to 100,000 population; 37 large towns or urban centers with a projected population between 100,000 and 400,000 persons.<sup>1</sup>

For small and medium towns, each serves a correspondingly smaller local market. It is important to emphasize that population sizes are intended only as guides. Population sizes

<sup>&</sup>lt;sup>1</sup> 1 M +: large metropolitan centers such as Metro Cebu, Metro Davao, Metro Angeles and other Metro Areas around metro Manila; 400k – 1 M: regional (metropolitan) centers – i.e. Metro Areas of Bacolod, Zamboanga, General Santos, Dagupan, Cagayan de Oro, Iloilo, Cabanatuamn Batangaas; 100k – 400 k: larget towns/cities; urban centers; 50k-100k –medium towns; Less than 50k:, small towns, rest of the settlements (source: RPFP)

may be considered as fuzzy and static indicators. These need to be supported or confirmed by local knowledge about the flows of goods and services among the settlements.

The lone town of Pantukan within Compostella valley shall be classified as medium town but shall breach 100T mark before the middle of the decade thus can be classified as a large town or urban center.

### 4.0 MACROECONOMY

### 4.1 Gross Regional Domestic Product

Over the last five years, the National Statistical Coordinating Board (NSCB) has produced data on gross domestic product (GDP), both national and regional. GRDP publications are prepared by the Economic Statistics Office (ESO) and the Subnational Statistics Office (SnSO) of the NSCB and are published annually. The latest GRDP statistics released is as of July 2008 which is comprised of the 2005-2007 GRDP publication with 1985 as the base year.

The 2005-2007 GRDP publication presents the Gross regional domestic product (GRDP)--its percent distribution, growth rates, implicit price index and gross value added as well as its percent distribution, growth rates, implicit price index, gross value added by Sector. It also contains the Per capita GRDP and the Regional population--its percent distribution and growth rates.

Specifically, the Gross Domestic Product (GDP) is the total market value of all goods and services produced within the country in a given period of time (usually a calendar year). It is one of the measures of national income and output for any given country's economy, while the Gross Regional Domestic Product (GRDP) is the aggregate of gross value added of all resident producer units in the region. GRDP includes regional estimates on the three major sectors including their sub-sectors namely: (1) Agriculture, Fishery and Forestry, (2) Industry Sector, and (3) Service Sector.

The Study Team largely used NSCB's GRDP publication in determining the economic performance of the regions in the country. Moreover, the basic data contained in such publication particularly the GRDP and GRDP will form part of the bases in SEDP formulation.

### 4.1.1 GDP of the Philippines by Industrial Origin

NSCB's latest GRDP statistics shows that the Philippine economy grew stronger at 7.2 percent in 2007 or equivalent, to 1.3, Billion from 5.4 percent or 1.2 Billion in 2006, backed by an environment of benign inflation, low interest rates, and a strong peso. All the major industries contributed to the growth of the Gross Domestic Product (GDP).

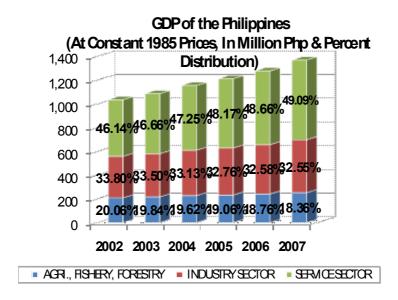


Figure H 4.1-1 GRDP of the Philippines

The service sector consistently registered the highest percentage share in GDP in each of the five-year period. In 2007, it posted its highest share of 49.09%, almost half of the country's GDP. In contrast, agriculture, fishery and forestry registered the lowest share in GDP during each of the same period, with its highest share of 20.06% in 2002. The industry sector has consistently registered a declining share of the GDP from 2002-2007. Its highest share was in 2002 with 33.8%, roughly one-third of the country's GDP.

In terms of GRDP growth, the Agriculture, Fishery and Forestry (AFF) sector registered a moderate expansion from 239 Million or 3.7 percent in 2006 to 251 Million or 4.9 percent in 2007. Industry rose faster at 445 Million or 7.1 percent in 2007 from 415 Million or 4.8 percent in 2006, while services grew at a healthy 671 Million or 8.1 percent in 2007 from 621 Million or 6.5 percent in the previous year. <sup>1</sup>

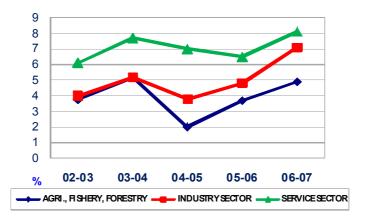


Figure H 4.1-2 GDP Growth Rates of the Philippines at Constant 1985 Prices

### 4.1.2 GRDP of the Five Regions in Mindanao by Industrial Origin

The five regions in Mindanao, which comprise the CAAM, exhibited accelerated growths from 2002 to 2007. In 2007 particularly, Region X-Northern Mindanao posted the highest GRDP among the five regions with a 7.9 percent growth, Its service sector bolsters the region's economy as it had the biggest share.

Region IX-Zamboanga Peninsula registered the second highest GRDP during the same year., Zamboanga Peninsula's economy surged from 2.1 percent in 2006 to 7.4 percent 2007., As shown in NSCB's GRDP statistics, the Agriculture, Fishery and Forestry (AFF) Sector influenced the robust improvement of the region.

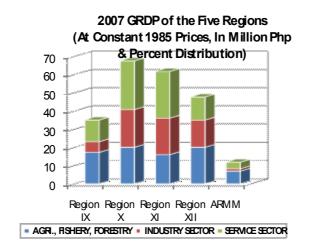


Figure H 4.1-3 GRDP of the Five Regions in CAAM

The third highest in GRDP are Region XI-Davao Region and XII-SOCCSKSARGEN. Both regions posted 6.7 growths in their economy in 2007. Davao region's growth from 4.3 percent in 2006 was primarily due to the remarkable 11.9 percent increase in its industry. Even so, the region's services sector dominates the region's economy. In SOCCSKSARGEN, the AFF Sector contributed the biggest to the region's total output.

Although ARMM ranks fourth in GRDP, but its economy showed remarkable improvement in 2007 as it recorded 5.4 percent growth from 3.7 percent in 2006, largely because of the remarkable performance of its agriculture, fishery and forestry (AFF) sector. <sup>1</sup>

In conclusion, Zamboanga Peninsula, SOCCSKSARGEN and ARMM largely bank on the Agriculture, Fishery and Forestry Sector in 2007 to bolster their economy while Northern Mindanao and Davao Region depend on the services sector as it greatly stimulated their economy's robust performance., On the contrary, the industry sector exhibited positive developments during the year and has significantly backed up AFF and Services sectors in driving each regions' economy.

### 4.1.2.1 Economic Performance of Region IX

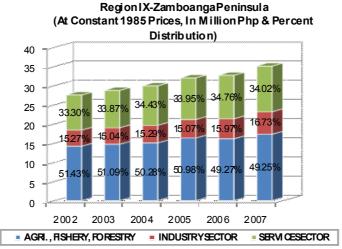


Figure H 4.1-4 Economic Performance of Region IX

The Agriculture, Fishery, and Forestry (AFF) sector consistently registered the highest share in GRDP in each of the five-year period. In 2007, the agriculture sector posted its highest GRDP of Php 17,274,812.

The industry sector registered the lowest share in GRDP during each of the same period. It accounted for 16.73 percent of the region's economy or equivalent to Php 5,868,934 in 2007. On the other hand, the service sector posted 34.02 percentage share or Php 11,931,290, roughly one-third of the region's GRDP.

As shown in figure 4, AFF, Industry, and Services Sector exhibited fluctuating growths from 2002 to 2007, peaking at 7.3 percent, 12.5 percent and 5.1 percent, respectively. The Industry Sector performed well in 2007 with 12.5 percent growth, better than the previous year's record of 8.2 percent and tremendously improved from the 2.7 percent growth five years ago. While Service Sector dropped to 1.3 percent in 2006 from 8.4 percent in 2005, it recovered in 2007 as it grew to 7.3 percent in 2007.



Figure H 4.1-5 GRDP Growth Rates of Region IX

### 4.1.2.2 Economic Performance of Region X

# (At 1985 Constant Prices, In Million PhP & Percent Distribution) 70 60 50 40 38.21% 38.86% 39.26% 39.55% 39.55% 30.71% 20 10 38.21% 38.86% 39.26% 39.55% 39.55% 29.68% 0 2002 2003 2004 2005 2006 2007

Region X-Northern Mindanao

Figure H 4.1-6 Economic Performance of Region X

As in Region IX, the figures in the graph show a continuing increase in GRDP of each major sector from 2002 to 2007. It is the service sector that consistently registered the highest share in GRDP in each of the five-year period. In 2007, the service sector, which is the largest contributor to the region's economy accounted for a 39.6 percent share.

The Industry Sector accounted for 30.7 percent of the region's economy, posting the second highest share. The AFF, which is the lowest contributor to the region's total output, registered 29.1 percent during the same period.

As shown in the graph, the Industry and AFF sectors exhibited fluctuating growths from 2002 to 2007 while Services Sector maintained an accelerated growth during the same period. Industry rebounded from having the lowest growth of 2.0 percent in 2005 to a robust 7.3 percent in 2006, peaking at 8.9 percent in 2007, thus ranking first during the said year. It is followed by the services sector with 8.0 percent, a 0.3 percentage point higher than the 2006. The AFF sector, which posted the third highest GRDP, also recovered from 4.3 in 2005, to a healthier growth of 5.6 in 2006, heightening at 6.7 percent in 2007.

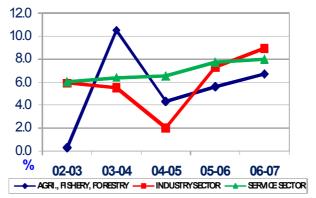


Figure H 4.1-7 GRDP Growth Rates of the Region X

### 4.1.2.3 Economic Performance of Region XI

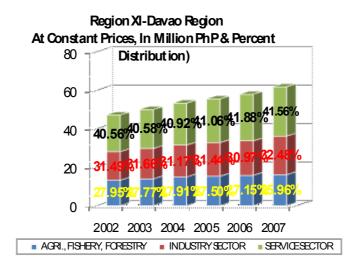


Figure H 4.1-8 Economic Performance of Region XI

In 2007, Davao Region's economy showed a stronger performance as it posted a 6.7 percent growth. <sup>1</sup> The growth of the region's economy is greatly influenced by its services sector as it accounted for 42 percent of the region's total output. The Industry Sector posted the second highest share in GRDP with 32 percent while the AFF sector registered the lowest share during the same year as it contributed only 27 percent to the region's economy.

In terms of growth, the industry and services sectors exhibited fluctuating trends in five years. The Industry sector in particular, posted the highest growth in 2007 with 11.9 percent, tremendously recovering from 2.8 percent in 2006. While service sector decelerated to 5.9 percent in 2007 from 6.4 percent in 2006, it maintained as the largest contributor to the region's economy.

On the other hand, the AFF sector exhibited the most sluggish growth in each of the five-year period, notably dropping to 2.1 percent growth in 2007.

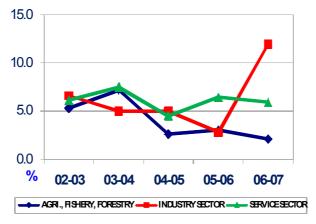


Figure H 4.1-9 GRDP Growth Rates of the Region XI

### 4.1.2.4 Economic Performance of Region XII

# Region XII-SOCCS/SAREN At Constant Prices, In Million PhP & Percent Distribution) 50 45 40 35 26.79% 26.88% 26.63% 27.53% 27.15% 26.62% 30 25 20 29.92% 29.59% 29.78% 30.84% 31.28% 31.38% 15 10 43.29% 43.54% 43.60% 41.63% 41.57% 42.01% 5 2002 2003 2004 2005 2006 2007

Figure H 4.1-10 Economic Performance of Region XII

Based from NSCB's statistics, SOCCKSARGEN's economy slightly expanded as it grew from 6.6 percent in 2006 to 6.7 percent in 2007 or equivalent to 48 Million. The Agriculture, Fishery and Forestry Sector registered the biggest share. In 2007, it accounted for 42 percent of the region's economy in five years.

The industry sector shared 31 percent of the region's total economic output during the same year. The services sector shared the lowest in GRDP as it accounted for only 27 percent of the region's economy.

Aside from being the biggest contributor to the region's total output in 2007, the AFF sector also registered the highest GRDP growth of 7.9 percent, offsetting the decelerated growths posted by the industry and services sector. It rebounded from a negative growth of 2.3 percent in 2005 to healthier growth in the next years.

The Industry sector dropped to 7.1 percent from 8.1 percent in the previous year. And while peaked at 5.8 percent in 2005, it posted decelerated growths of 5.1 percent in 2006 and 4.6

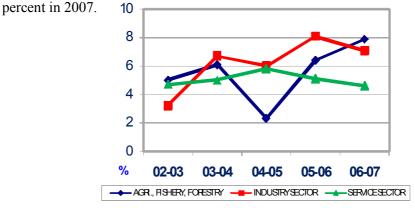


Figure H 4.1-11 GRDP Growth Rates of Region XII

### 4.1.2.5 Economic Performance of ARMM

# At Constant Prices, In Million PhP & Percent Distribution) 12 10 8 30.27%31.34%30.93%31.36%31.16%30.54% 6 11.27%11.20%10.94%11.92%11.97%11.10% 6 4 58.46%57.46%58.12%56.72%56.87%58.36% 2 0 2002 2003 2004 2005 2006 2007 ACR., FISHERY, FORESTRY INDUSTRYSECTOR SERVICE SECTOR

Figure H 4.1-12 Economic Performance of ARMM

In five years, ARMM encountered a fluctuating growth on its GRDP. However, in 2007, its economy accelerated to 5.4 percent The Agriculture and Fishery Sector has been largely influential to the region's economic improvements during the year as it accounted for 58.4 percent of the region's economy.

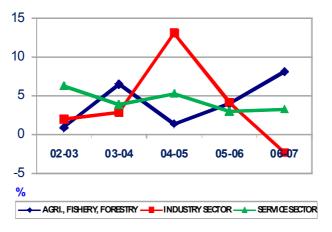


Figure H 4.1-13 GRDP Growth Rates of ARMM

The service sector, which is the second largest contributor, accounted for 30.5 percent of the region's economy. Its Industry Sector, on the contrary, shared only 11.10 percent to the region's GRDP.

Aside from being the major contributor in 2007, AFF also registered the highest growth of 8.1 percent. The services sector accelerated slightly to 3.3 percent in 2007 from 3.0 percent in 2006. The Industry sector exhibited very sluggish performance as it registered a negative 2.3 percent growth, a reversal from a 4.2 percent growth registered on the previous year.

### 4.2 AGRICULTURAL PRODUCTION

CAAM economy, similar to Mindanao's overall economic situation, has great potentials for growth. The economic situation of CAAM may be gleaned from the performance of Mindanao as a whole as well as from the performances of each province which include CAAM municipalities. CAAM's economy is likely to continue its significant progress due to sustained growths in the agriculture sector and services as well as exports. Statistics on the agricultural products produced in each province and the corresponding trends in terms of annual production, as well as discussions on other products produced in each CAA provinces are outlined below

There is no available information on Shariff Kabunsuan. The latter is considered to be part of Maguindanao.

## 4.2.1 Zamboanga del Norte

The province is rich in marine, mineral sources and is suitable for agricultural production. Its main products are corn, coconut, rice, yellow fin tuna and other fish products. Table H 4.2-1 presents the total agricultural production of the province by major commodity.

Table H 4.2-1 Zamboanga del Norte, Total Agriculture Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Palay		88,256	86,824	-1.6
Corn	43,530	56,593	50,837	-10.2
Banana	90,451	117,855	113,078	-4.1
Mango	8,530	15,619	16,400	5
Coconut	377,264	706,395	768,760	8.8
Fish	124,271	117,787	93,411	-20.7
Chicken (head)	1,534,741	1,685,980	1,830,903	8.6
Duck (head)	21,537	21,992	22,667	3.1
Hog (head)	223,270	153,830	164,830	7.2

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

The major crops produced by the province slightly decrease from 2005 to 2006 as depicted in Figure H 4.2-1. However, mango and coconut exhibited a positive growth rate and poultry has a potential contribution to the overall agricultural output of the province. The potential of the chicken industry could be explored particularly with the vision of Mindanao in producing and exporting Halal chicken.

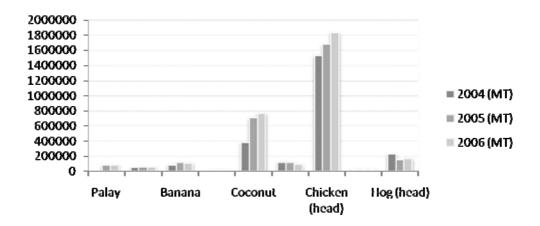


Figure H 4.2-1 GRDP of the Philippines Agriculture

Although, the province experienced decreasing production of fish, it is still pursuing the processing of fish products. One of the growing industries and a potential driver of the province's economic growth, particularly in Dipolog is the bottled fish. Today, there are more than 70 different kinds of bottled fish products and at least 13 sardines processing enterprises. Bottled fish are marketed locally and are exported to USA, Canada, Italy and other Asian countries<sup>2</sup>.

The bottled fish industry has a promising potential for driving the economic growth of the province considering the contribution to exports and generation of jobs. However, to maximize the benefit of this industry, the following factors are needed to be put in place and developed: post harvest facilities (i.e., cold storage, contact freezer, etc.); cooking facility; dryer, fishing equipment; and provision of facilities for HACCP and Halal accreditation.

# 4.2.2 Zamboanga del Sur

The major economic activity of the province is agriculture considering its rich natural resources. Under the agribusiness approach, the existing major industries are the manufacture of coconut oil, livestock feed milling; rice/corn milling, processing of fruits, and processing and preservation of marine products. Table H 4.2-2 presents the total agricultural production of the province by major commodity and Figure H 4.2-2 shows the graphical representation of the production behavior of the major crops from 2004 to 2006.

Table H 4.2-2 Zamboanga del Sur, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Palay		330,240	276,758	-16.2
Corn	121,315	135,303	126,032	-6.9
Banana	69,326	93,465	98,659	5.6
Mango	33,490	32,953	33,967	3.1
Coconut	685,789	709,040	749,560	5.7
Fish	337,576	394,787	369,535	-6.4
Chicken (head)	2,834,555	2,703,599	3,529,707	30.6
Duck (head)	126,107	118,665	123,520	4.1
Hog (head)	464,360	446,360	519,980	16.5

4000000 3500000 3000000 2500000 2000000 = 2004 (MT) 1500000 2005 (MT) 1000000 2006 (MT) 500000 0 Palay Banana Coconut Chicken Hog (head) (head)

Figure H 4.2-2 Agriculture Production of Zamboanga del Sur

Only seaweed products increased in export due to the recent demand on export market that encouraged the fisherfolks to engage in this kind of livelihood. In addition to the above agricultural output, mining industries like marble, sand and gravel are also contributing to the province's total output. However, the quality of the marble products has to be improved in order to compete with other producers. It can be noted that this province produced relatively highest output compared to Zamboanga del Norte and Sibugay.

# 4.2.3 Zamboanga Sibugay

The province is composed of rich agricultural, aquaculture, natural and mine resources. Zamboanga Sibugay's 766 kilometers of coastline precedes waters that team with marine resources. Its six (6) major bays, considered by marine experts as one of the richest fishing grounds in the country, are host to a wide variety of fish species that include yellow fin tuna, mackerel, skipjack, prawns, shrimps, milkfish and crabs. The major agricultural products and industries are rubber, rice, coconut, and seaweed. Limestones and marble is also abundant in

the area. The major sources of livelihood are farming, fishing, mining and business enterprise. Table H 4.2-3 presents the total agricultural production of the province by major commodity.

Table H 4.2-3 Zamboanga Sibugay, Total Agriculture Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Palay		144,061	150,619	4.6
Corn	34,786	31,312	27,522	-12.1
Banana	19,108	31,170	25,956	-16.7
Mango	3,623	3,538	3,565	0.8
Coconut	222,960	222,388	212,952	-4.2
Fish	53,677	61,988	108,270	74.7
Chicken (head)	612,271	710,188	741,467	4.4
Duck (head)	115,158	139,972	150,100	8.8
Hog (head)	114,740	113,530	114,900	1.2

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

800000 700000 600000 500000 2004 (MT) 400000 300000 2005 (MT) 200000 2006 (MT) 100000 0 Palay Banana Coconut Chicken Hog (head) (head)

Figure H 4.2-3 Zamboanga Sibugay, Total Agricultural Productionby Commodity, 2004-2006

Among the agricultural products, palay and mango exhibited a positive growth rate. Other high value commercial crops like mango, banana, calamansi, lanzones and rambutan are also widely grown in hundreds of hectares in the province. Fifty-nine percent (59%) of the total land area of 322,830 hectares is devoted to agriculture. This explains why the province of Zamboanga Sibugay is seen also as a food basket in Zamboanga Peninsula.

The fish sector performed very well with almost 75 percent growth rate. In fact, agar-agar farms have become one of leading sources of alternative income among residents and marginal fishermen. Reports also showed that seaweeds farming is capable of generating at the very least 2 million metric tons of produce annually<sup>3</sup>. Moreover, about 26,000 hectares of

<sup>&</sup>lt;sup>3</sup> www.sibugay.gov.ph

fishpond areas have equally contributed to the strengthening of the province's aqua-marine industry; thereby, gaining respect as a force to reckon with in the domestic export market.

The economy of the province is largely dependent on the ability of its people to adapt to new challenges in improving agricultural production and management skills and set in place infrastructure support system to facilitate the accessibility of raw materials, manpower and product.

Among the three provinces, Zamboanga del Sur has the highest agricultural contribution to the region's total agricultural output. However, despite the observed positive agricultural performance and improving economic growth in the region, poverty incidence remains to be one of the highest at 40 percent. Hence, there is still much development initiatives needed to be planned and implemented in the area to capitalize on the abundant resources and exhaust promising and emerging industries, thereby achieving the sustainable economic growth.

### 4.2.4 Lanao del Norte

Among the provinces of Northern Mindanao, Lanao del Norte is considered to be vulnerable to political instability due to the peace and order situation brought about by the MILFs in some areas of the province. Despite possible insurgencies, economic activity of the province is still catching up in order to continuously develop and alleviate poverty plaguing the low living standards of the people.

Lanao del Norte's major industries are tin plate mills, chemicals and cement factories, pulp and paper mills and flour mills. Major agricultural products of the province are coconut, banana, corn, palay, rootcrops, peanut, abaca, coffee, vegetables and fruits. With the rich natural resources, fertile lands and good climate, Lanao del Norte is highly suitable to agricultural production, thus a major driver of the province's economic growth.

It can be noted that agriculture plays an important source of livelihood for the province as shown in the positive performance of agricultural production of the major commodities of the area. For palay and corn, Lanao del Norte ranked second to Bukidnon with 134,751 MT and 193,062 MT production, respectively in 2006. On the other hand, the province is considered to be the top producer of banana and coconut in Northern Mindanao with 279,304 MT and 491,079 MT production, respectively in 2006 (Table H 4.2-4). Another promising enterprise in the province is the fish sub-sector, which shows positive growth from 2004 to 2006 with 50,432 MT, second to Misamis Occidental.

Table H 4.2-4 Lanao del Norte, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006
Palay		147,553	134,751	(8.7)
Corn	219,405	182,597	193,062	5.7
Banana	274,869	275,171	279,304	1.5
Mango	3,377	3,490	3,458	(0.9)
Coconut	500,671	503,345	491,079	(2.4)
Fish	38,814	44,015	50,432	14.6
Chicken (head)	878,295	862,646	1,239,038	43.6
Duck (head)	35,442	30,369	32,084	5.6
Hog (head)	62,340	61,950	73,000	17.8

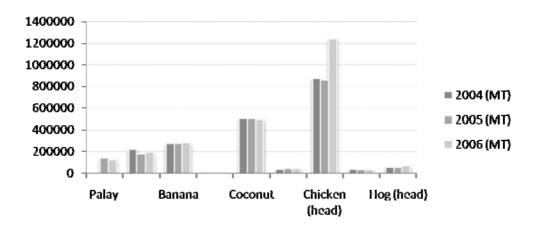


Figure H 4.2-4 Lanao del Norte, Total Agricultural Production by Commodity, 2004-2006

Given the province's potential in agricultural production, agribusiness and agro-industry development could help fuel its economic growth. Moreover, it can capitalize on its strategic location with three known fishing grounds surrounding the area and the extensive areas for inland fishponds for venturing into aquaculture. In the long term, considering the vast resources and the province's potentials, it can attain competitiveness in the local and international market, with value adding and processing of its agricultural products.

For the industry sector, another potential/opportunity in the area is its capacity to generate renewable energy like hydro power, with the presence of Maria Cristina Falls and other rivers. Appropriate facilities and equipments can be put in place to maximize the benefit of this resources as well as serving other neighboring provinces and/or regions, thus creating additional income or economic activity for the province.

Given the potential of the agriculture and economic growth of the province, poverty incidence remains to be at 43.2 percent. This signals that there is a need to further develop the area and harness its potential in order to improve the living standards of the people such as producing

food for the family, generating employment and innovating products for sustained economic growth.

#### 4.2.5 Davao Oriental

Davao Oriental occupies the biggest land area among the provinces in Region XI, which represents 26 percent of the total land area of the region. The province's major economic activity is still agriculture-based and is producing major crops such as: corn, banana, corn, palay, abaca, root crops, fruits, coffee, tobacco, vegetables and fruits. Seventy- percent (70%) of the agricultural land in Davao Oriental is planted with coconut, and they are the top producer of coconut with 1,012,963 MT production in 2006 (Table H 4.2-5) and considered as the main producer of copra in the Region. Moreover, the province is also big producer of mangoes and abaca.

Table H 4.2-5 Davao Oriental, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Palay		65,413	65,425	0
Corn	61,207	59,019	68,030	15.3
Banana	111,621	115,370	118,321	2.6
Mango	1,436	1,369	1,338	-2.2
Coconut	1,060,597	1,031,714	1,012,963	-1.8
Fish	19,391	17,802	17,486	-1.8
Chicken (head)	1,158,729	1,278,841	1,366,384	6.8
Duck (head)	42,409	316,194	50,977	-83.9
Hog (head)	125,330	125,360	172,040	37.2

 $Source: The \ Philippine \ Countryside \ in \ Figures, \ National \ Statistical \ Coordination \ Board, \ 2006$ 

1600000 1400000 1200000 1000000 = 2004 (MT) 800000 600000 2005 (MT) 400000 2006 (MT) 200000 0 -Palay Banana Coconut Chicken Hog (head) (head)

Figure H 4.2-5 Davao Oriental, Total Agricultural Production by Commofity, 2004-2006

The province has suited areas for fishponds, thus making it second (2<sup>nd</sup>) to Davao del Sur in terms of total fish production from 2004 to 2006. The total fish production of the province in 2006 is accounted at 17,486 MT.

Given the capacity of the province to produce large amount of coconut and fish products, there is need to harness the potential in agro-industry particularly in these two agricultural products. For the coconut industry, the potential areas for investments are in the processing and packaging of coconut into industrial and consumer's products. In fact, the establishment of coconut plant is also being explored by the local government as well as welcoming possible investors for coconut processing<sup>4</sup>. For fishery, the provincial government believes that since Davao Oriental has the longest coastline in Region XI, which is about 445 km, they have a great fishing potential; however, investors are needed to capitalize on these resources and develop a competitive industry; thereby, producing and gaining revenues on this industry. To maximize the potential and further develop the industry sector, infrastructure development is also given priority by the local government to drive and sustain economic activity as well as contributing to harnessing agricultural development, mineral development and tourism.

## 4.2.6 Compostela Valley

Compostela Valley's major economic activity is agriculture, wherein large portion of its land area is devoted for agricultural activities. Its major agricultural products include rice, corn, banana, coconut and timber. Among the provinces of Region XI, the province is the top producer of banana with 1,087,356 MT production recorded in 2006 and is growing at a fast rate of 14.2 percent from 2005 to 2006 (Table H 4.2-6). Moreover, the province is also enriched with forest resources such as commercial timber species; and minerals such as gold, copper, manganese, chromite, bentonite, sand and gravel, and gold.

Table H 4.2-6 Compostella Valley, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006
Palay		107,536	107,500	0
Corn	76,520	86,046	79,514	(7.6)
Banana	698,471	952,194	1,087,356	14.2
Mango	1,587	1,927	1,584	(17.8)
Coconut	280,974	276,019	281,265	1.9
Fish	3,902	4,915	4,458	(9.3)
Chicken (head)	1,159,972	1,162,531	1,032,410	(11.2)
Duck (head)	146,530	131,353	106,458	(19)
Hog (head)	127,350	155,650	130,990	(15.9)

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

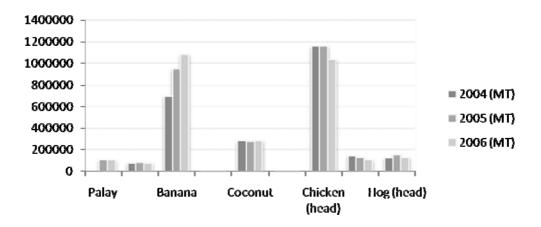


Figure H 4.2-6 Compostella Valley, Total Agricultural Production by Commodity, 2004-2006

Industrial development is on its way in the province with agro-industry slowly creeping towards developing its potentials. The production and marketing of raw materials is still the main focus and small scale processing industries providing secondary thrust. In fact, export oriented industries are focused on the production of cavendish banana with 14 banana plantations undertaking this kind of business<sup>5</sup>.

Moreover, another emerging industry in the province is rubber processing plant found in Monkayo, New Bataan and Laak. On the other hand, the coconut processing industry in the province has yet to be established. Although the province ranked third in the production of coconut in the region, with Davao Oriental as first and Davao del Sur as second, it has remained supplier of raw materials of coconut products to the other provinces in the region.

Mining industry dominates the industrial development in terms of employment and income generation and positively influencing the increase of commercial establishments to the locality. Although this industry has influenced the growth of the urban central business districts of some component municipalities, technical and legal hindrances continued to obstruct its full development potentials. Although the province is served by small and medium scale mining operations, local government are looking at improving working conditions and eliminating toxic discharges that could harm the nearby areas. Other emerging industry in the province includes: furniture and hollow blocks; biscuit factories; and rice and corn mills.

In order for the industries to take off from the infantile stage and propel to high gear development, the establishments of appropriate infrastructure facilities of which the province has to invest heavily, and condusive business environment should be put in place.

<sup>5</sup> http://nccisi.fdcci.org

The vast resources coupled with potential investors and industries in the area, could fuel the positive and fast economic growth of the region. In particular, Davao Oriental and Compostela Valley can contribute a big percentage to the region's total output and growth. However, despite potentials and emergence of promising industries, poverty incidence in these two provinces remains high at 40 percent. It can be surmised from this observation, that there is a need to prioritize and appropriately plan the development of the area in order to achieve equal improvement in the living standards, maximize the benefits from the resources available, and sustain the economic growth.

#### 4.2.7 North Cotabato

North Cotabato is considered as Mindanao's food basket. The province is a major producer of cereals, tropical fruits, vegetables, sugarcane, coconut, coffee, freshwater fish and livestock. In particular, the province takes the lead in palay production with a total production of 420,783 MT in 2006 at growth rate of 3.1 percent (2005-2006). It is also one of the country's leading producers of raw and semi-processed rubber, and industrial trees. Table H 4.2-7 shows that all of the major agricultural commodities increased from 2004-2006.

Table H 4.2-7 North Cotabato, Summary of the Total Agricultural Production by Commodity

				2005-2006
	2004	2005	2006	Growth rate
Palay	-	420,783	433,641	3.1
Corn	333,406	293,945	330,887	12.6
Banana	372,876	474,798	527,601	11.1
Mango	13,368	18,397	18,080	-1.7
Coconut	172,821	171,406	174,442	1.8
Chicken (head)	1,950,019	2,278,514	2,345,806	3
Duck (head)	289,135	305,200	325,977	6.8
Fish	5,184	6,300	8,886	41
Hog	217,600	215,490	204,620	-5

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

2500000 1500000 1000000 500000 Palay Banana Coconut Duck (head) Hog

Figure H 4.2-7 North Cotabato, Summary of the Total Agricultural Production by Commodity

Among its major natural assets are Mt. Apo, the country's highest peak at 10,311 feet above sea level, the Pulangi River which is a major contributor to Mindanao's irrigation system and hydro-electric energy, and the vast Liguasan Marsh that contains a bounty of freshwater fish and organic fertilizer but and a potential source as well of natural gas<sup>6</sup>.

Potential investment includes agricultural-based industries, industrial plantation, manufacturing, tourism and infrastructure facilities, fruit industry the delivery of basic services. As envisioned, the key to the development of any locality is infrastructure development through capacity building of the Provincial Engineering Office staffs, implementation of a province wide maintenance, rehabilitation, and concreting of key provincial and barangay roads, rehabilitation of farm-to-market roads, construction of spring development projects, communal irrigation projects, bridges, flood control/drainage and installation of water systems.

#### 4.2.8 South Cotabato

Almost 44.47 percent of the total land area of South Cotabato is classified as arable land suitable for agricultural crops. Rice, corn, coconut, pineapple, asparagus, papaya and banana are the major crops of the province. The province has the highest production of corn and fish in the region. However Table H 4.2-8 shows a decreased production in from the 2004-2005 data but eventually took-off in 2006. On the other hand, production of mango and coconut declined by -30.4 and -7.3, respectively from 2005-2006 data.

Table H 4.2-8 South Cotabato, Summary of the Total Agricultural Procduction by Commodity

COMMODITY /PROVINCE	2004	2005	2006	2005- 2006 Growth rate
Palay	1	273,405	275,330	0.7
Corn	409,055	338,081	466,184	20.1
Banana	170,701	167,968	185,252	10.3
Mango	30,752	26,992	18,788	-30.4
Coconut	148,116	153,703	142,510	-7.3
Chicken (head)	1,385,799	1,698,230	1,902,071	12
Duck (head)	260,631	282,768	36,221	1,011.30
Fish	206,982	171,699	185,926	8.3
Hog	217,850	209,060	220,290	5.4

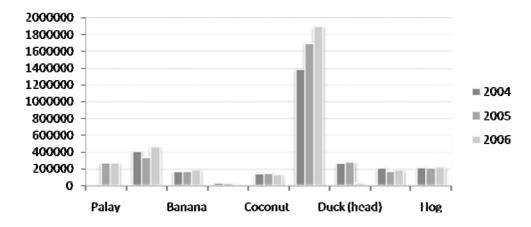


Figure H 4.2-8 South Cotabato, Summary of the Total Agricultural Production by Commodity

Investment opportunities are perceived in agriculture, high value crops, fish production and forestry-based production, manufacturing, fruit industry, and wood industry.

# 4.2.9 Sarangani

Agricultural products of the province include coconut, corn, rice, and high value crops of exotic fruits. Its coastline is a rich fishing ground which is suitable for fishponds. There are also large deposits of precious metals and mineral resources that can be mined in the area. As presented in Table H 4.2-9 among the major commodities palay, banana, mango, chicken, and fish exhibits an increasing production from 2004 to 2006.

Table H 4.2-9 Saranggani, Summary of the Total Agricultural Production by Commodity

COMMODITY PER PROVINCE	2004	2005	2006	GROWTH RATE (2005-2006)
Palay		38,253	41,814	9.3
Corn	110,900	103,883	123,768	19.1
Banana	62,472	84,906	91,463	7.7
Mango	3,916	4,427	3,977	-10.2
Coconut	337,619	334,890	353,340	5.5
Chicken (head)	805,243	987,175	820,665	-16.9
Duck (head)	25,485	36,219	402,495	-87.2
Fish	27,898	28,342	28,981	2.3
Hog	91,630	99,030	99,740	0.7

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

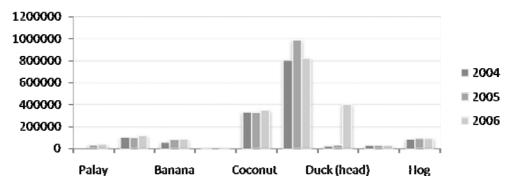


Figure H 4.2-9 Saranggani, Summary of the Total Agricultural Production by Commodity

Investments can be poured in aqua marine production, real estate, eco-cultural tourism, abaca and coconut plantation.

#### 4.2.10 Sultan Kudarat

The economy of Sultan Kudarat is predominantly agriculture-based and is one of the major producers of Irish potatoes in the country. The province is self-sufficient in poultry, swine, and root crops. The southern Philippines Grain Complex in Tacurong is the largest grains-processing complex in the country with more than 200 ricemills. Fishing is a fast growing industry. Tuna caught along the coasts of the Celebes Sea are of high quality, and are exported to Japan and Europe. Cottage industry, which includes crafts made of rattan and other types of wood is one of the important economic activities of the province.

Table H 4.2-10 Sultan Kudarat, Summary of the Total Agricultural Production by Commodity

			8	
COMMODITY /PROVINCE	2004	2005	2006	2005-2006 Growth Rate
Palay		357,664	395,435	10.6
Corn	171,951	173,377	167,004	-3.7
Banana	25,648	25,823	26,506	2.6
Mango	3,578	3,769	2,518	-33.2
Coconut	125,829	119,318	137,214	15
Chicken (head)	972,014	1,138,887	1,206,060	5.9
Duck (head)	419,740	436,390	480,520	10.1
Fish	30,173	32,135	34,239	6.5
Hog	147,000	139,300	129,630	-6.9

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

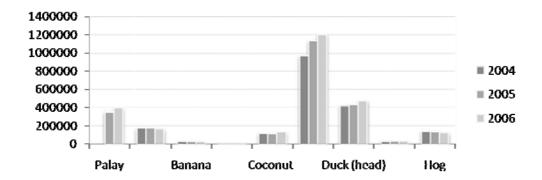


Figure H 4.2-10 Sultan Kudarat, Summary of the Total Agricultural Production by Commodity

While the region exhibits potential for development as observed in the increasing GRDP, However, the positive growth was not translated to improved economic condition of the region as observed in the high poverty incidence in the region. The region's potential was maximized and outweighed by the existing political conflict that hinders development initiative to progress and inhibits the region and its provinces to be fully developed and alleviate the poverty situation.

#### 4.2.11 Basilan

About 70 percent, of the province's land area is devoted to agriculture and planted exclusively by coconut, rubber, and coffee. Other agricultural crops include palay, corn, cacao, cassava, African oil palm and black pepper. The provincial waters are laden with grouper tuna, squid, octopus, and marlin. There were also inland fishponds stocked with milkfish, prawns, and shrimps. Local products also include weavings.

Basilan is seen as one of the strongholds of the Islamic separatist group. The Basilan hostage crisis of 2001 raised questions about the economic future of Basilan. Operations by the militant Islamist separatist group Abu Sayyaf hinder prospects for investment and tourism.

The investment facilities in Basilan revolve around agricultural and marine resources of the province. Production and processing of rubber, coconut, coffee, and marine products rank high based on a product- market mix made by the local government. Specific business ventures include rubber-wood manufacturing such as furniture, tiles, gloves, conveyor belts and latex and coconut processing.

Table H 4.2-11 Basilan, Summary of the Total Agricultural Production by Commodity

COMMODITY /PROVINCE	2004	2005	2006	2005-2006 Growth rate
Palay		3,868	3,238	-16.3
Corn	1,838	1,779	1,886	6
Banana	20,852	20,497	527,601	11.1
Mango	215	224	215	-3.8
Coconut	209,297	209,986	210,567	0.3
Chicken (head)	150,136	148,354	145,691	-1.8
Duck (head)	5,566	6,737	6,890	2.3
Fish	27,519	29,566	29,761	0.7
Hog	15,900	16,170	20,260	25.3

600000
400000
200000
100000
Palay Banana Coconut Duck (head) Hog

Figure H 4.2-11 Basilan, Summary of the Total Agricultural Production by Commodity

## 4.2.12 Lanao del Sur

The province's land area of 4,215 sq. km. is surrounded with lakes and rivers and terrain of plateaus, volcanoes and mountain ranges. The province has predominantly 65.6 percent timberland. Investment opportunity for the province includes tilapia culture and crab fattening, plantation and nursery establishment, and ecotourism.

Table H 4.2-12 Lanao del Sur, Summary of the Total Agricultural Production by Commodity

COMMODITY /PROVINCE	2004	2005	2006	2005-2006 Growth rate
Palay		134,520	144,405	7.3
Corn	294,796	252,754	300,088	18.7
Banana	116,520	113,953	91,463	7.7
Mango	156	150	133	-11.9
Coconut	170,098	169,897	170,338	0.3
Chicken (head)	648,909	545,688	595,616	9.1
Duck (head)	58,654	44,424	33,102	-25.5
Fish	25,123	25,377	25,630	1
Hog	1,970	2,240	2,670	19.2

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

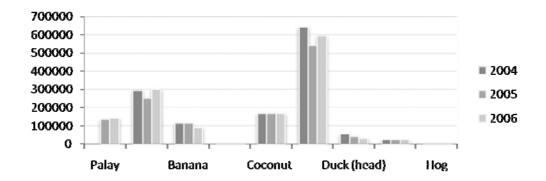


Figure H 4.2-12 Lanao del Sur, Summary of the total Agricultural Production by Commodity

## 4.2.13 Maguindanao

The province of Maguindanao is predominantly an agricultural economy that produces rice, corn, coconut, banana, and cassava. Investment opportunity for the province is greatly on agriculture development.

Table H 4.2-13 Maguindanao, Summary of the Total Agricultural Production by Commodity

COMMODITY	2004	2005	2006	2005-2006 Growth rate
Palay		400,446	400,573	0
Corn	358,978	373,426	389,694	4.4
Banana	216,503	213,614	185,252	10.3
Mango	4,538	5,291	5,303	0.2
Coconut	419,870	432,088	440,361	1.9
Chicken (head)	841,763	755,185	742,862	-1.6
Duck (head)	388,548	328,189	295,100	-10.1
Fish	29,905	31,754	77,347	143.6
Hog	40,240	38,570	53,930	39.8

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

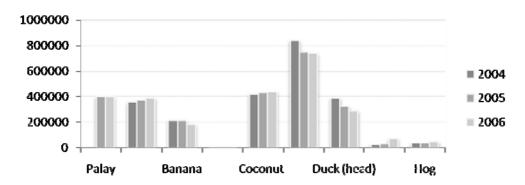


Figure H 4.2-13 Maguindanao, Summary of the Total Agricultural Production by Commodity

#### 4.3 FAMILY INCOME AND EXPENDITURE

## 4.3.1 Zamboanga del Norte

The province being an agriculture-based, employ its population through engaging in crop production, fishing, agro-processing and tourism. The employment rate of the province is 88.5 percent with visible underemployment of 29.6 percent, and unemployment is recorded at 11.5 percent. The number of employed persons by industry type is presented in Table H 4.3-1.

Table H 4.3-1 Zamboanga del Norte, Employed Persons by Industry Group

INDUSTRY TYPE	NUMBER OF EMPLOYED PERSONS	PERCENT CONTRIBUTION IN EMPLOYMENT
Agriculture	162,000	48%
Industry	37,000	11%
Service	136,000	41%

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

It can be noted that almost half of the population (Table A6.6-2) still depend on agriculture as a means of livelihood, which could vary from farmer to farm laborer. Analyzing the income and expenditure pattern of the population, it is observed that the annual family income is around PhP 87,107. Table H 4.3-2 presents the income distribution per expenditure items.

Table H 4.3-2 Income Distribution in Zambonga del Norte

EXPENDITURE ITEMS	PERCENT DISTRIBUTION OF INCOME
Food	48.7%
Rent	7.8%
Transportation and communication	5.0%
Education	2.7%
Medical care	3.0%
Tobacco and alcohol	0.16%

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

Data shows that almost half of the income is expended to food and only small portion is left to other non-food requirements, particularly education and health. These two items are equally important in terms of human development. But considering limited income of the family, external assistance is needed to further improve the human welfare.

Considering the vast resources and the catching up economy of the province, the province still ranks second in the ten poorest provinces of the country. Although poverty incidence decreased from 68.5 percent to 67.5 percent from 2003 to 2006, respectively, the decrease is

still very minimal. This implies that around 67.5 percent of the families in the total population have income and expenditure less than the minimum required income and expenditure to meet the basic food and non-food requirements. In fact, the recorded annual per capita poverty threshold of the area is 13,947 pesos. The inability of the poor to meet basic food requirements is also high at subsistence incidence of 51 percent. This indicates that 51 percent of the population has income/expenditure less than to the minimum requirements to meet the basic food needs.

# 4.3.2 Zamboanga del Sur

The total population of the province is 914,278, the highest among the provinces of Region IX. Annual growth rate of the population is recorded at 1.24 lower than the average region's growth rate. Although, the province has the highest population, it can be noted that it has the highest employment rate among the region at 89.7 percent with visible underemployment of 10.3 percent, and unemployment rate of 4.2 percent. Of the employed population, the number of persons employed per industry group is presented in Table H 4.3-3.

Table H 4.3-3 Employed Persons by Industry group in Zamboanga del Sur

INDUSTRY TYPE	NUMBER OF EMPLOYED PERSONS	PERCENT CONTRIBUTION IN EMPLOYMENT
Agriculture	379,000	49.5%
Industry	67,000	8.75%
Service	319,000	41.7%

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

The agriculture and service sectors are the main source of living of the people in the province. Analyzing the income and expenditure, an average family living in the province has an annual family income of PhP 88,701. Table H 4.3-4 presents the desegregation per expenditure items.

Despite being an agriculture-based economy and having abundant resources, it is paradoxical that the province remains to be poor and unavailable to meet the minimum required income for food. It can be surmised, that there is a need to address the poverty gaps existing in the area and plan appropriate economic activity that will improve living standards of the population particularly those in the marginalized condition.

Table H 4.3-4 Income Distribution in Zamboanga Sur

EXPENDITURE ITEMS	PERCENT DISTRIBUTION OF INCOME
Food	53.6%
Rent	11.6%
Transportation and communication	4.0%
Education	3.0%
Medical care	1.3%
Tobacco and alcohol	2.5%

It can be realized that bulk of the family's income go to food and only a very little percentage goes to education and medical care. These show that social expenditure items, if given equal allocation and priority expenditure item, could be a driver for improving human welfare/social development of the family.

Moreover, improvement in the economic activity of the province has resulted to decreasing poverty incidence from 38.8 to 33.8 percent. This is relatively lower than the poverty incidence of Zamboanga del Norte. This could be attributed to the continuous improvement in the economic performance of the province as evidenced with the industry output it produced, which is a big contributor to the total regional output. Additionally, this also showed that the available industries in the province have generated enough employment and wage/salary is quite enough to meet the basic needs of the family. In fact, the subsistence incidence among the population is low at 20.1 percent, which indicates that only this much of the population are not able to meet their food requirements relative with the income they are receiving. Although the province has relatively lower number of poor families, there is a continuous need to improve on harnessing the industries that can sustainably provide employment, income, food, and other basic needs of family thus, providing its people an improved living condition.

## 4.3.3 Zamboanga Sibugay

In its infantile stage of organization and development, the province's poverty incidence is decreasing at a fast rate from 50.3 percent in 2003 to 40.5 percent in 2006. There is about 10 percent decrease in the total population that are living below the poverty threshold who are not able to meet their basic food and non-food requirements relative to the income they are receiving/earning.

On the ability to meet the food requirements, the province has substantially increased its capacity to meet the basic food requirement with subsistence incidence decreasing from 33.4 percent in 2003 to 19.1 percent in 2006. This indicates that 80.9 percent of the population is able to meet their basic food requirements with the income they are earning. This implies an

improvement in the living standards of the people which could be attributed to the efficient use of resources and/or improved economic activity of the province.

Generally, the peninsula has been endowed with rich natural resources, and one way of improving the socio-economic condition is on capitalizing on these resources through sustainable rural development. Given that agriculture and services are the main sources of livelihood, an improvement on these industries may be examined to further improve output and laterally improve income of its labor force. Mainstreaming development in this area should be coupled with socio-cultural sensitivity in order to achieve sustainable benefits.

#### 4.3.4 Lanao del Norte

Of the region's total population, Lanao del Norte only contributed 13 percent of the population and is recorded to be one of the lowest populated area among the provinces of Region X. In the recent census, the province's total population is recorded at 538,283 with an annual growth rate of 1.80. With the labor force population, employment rate is 85.8 percent with visible underemployment of 23 percent, while unemployment is at 14.2 percent. See Table H 4.3-5 present employment by industry type.

Table H 4.3-5 Employed Persons by Industry group in Zamboanga del Sur

INDUSTRY TYPE	NUMBER OF EMPLOYED PERSONS	PERCENT CONTRIBUTION IN EMPLOYMENT
Agriculture	155,000	44%
Industry	34,000	10%
Service	158,000	46%

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

It can be noted that agriculture and service sectors are the main sources of livelihood in the province. On the income and expenditure side, the annual average family income is PhP 101,981 and Table H 4.3-6 shows the income distribution per expenditure items.

Table H 4.3-6 Income Distribution in Lanao del Norte

EXPENDITURE ITEMS	PERCENT DISTRIBUTION OF INCOME
Food	50.4%
Rent	7.9%
Transportation and communication	4.7%
Education	3.5%
Medical care	2.5%
Tobacco and alcohol	2.6%

 $Source: The \ Philippine \ Countryside \ in \ Figures, \ National \ Statistical \ Coordination \ Board, \ 2006$ 

Data showed that half of the income is expended in food while a small portion is allocated for education and medical care. In fact, rent and transportation & communication received higher allocation than these social expenses. Also, family expenditure on tobacco and alcohol is slightly higher than the medical care, hence, receiving almost equal importance in the family spending. Given that education and medical care received a small allocation and considering the limited income received by a family, there is a need to augment budget, either through the government, in order to meet basic education and health care of a family.

Despite high employment rate, the recorded poverty incidence of the province remains to be high at 52.2 percent which is relatively higher than the average of the region. High poverty incidence implies that almost half of the population could not meet the basic food and non-food requirement of the family/individual. Given that big portion of the family's income is allotted for food, thus, other needs of the family, particularly for social development like education and health will not be really given any fund allotment. Meaning families living below the poverty threshold will not be able to provide better education and health service to their family members and even food requirements will be on a tight side of the pocket.

Based on the above socio-economic data, there is a need to fast track economic development in the area that will not only provide better income but also nourish social development of the population. It can be inferred that social development should be worked together with economic development in order to realize effective alleviation of poverty in the area. The LGUs, development agencies and/or funding institutions could provide assistance to help those below the poverty line in this province to meet their basic food and social requirements.

### 4.3.5 Davao Oriental

The province's population is increasing at a rate of 1.19 relatively lower than the rate of the region, wherein 446,191 population was recorded in 2000 and 486,104 in 2007. Davao Oriental is the lowest populated area in Region XI. Of this population, 86.9 percent are employed with visible underemployment of 32.5 percent, while unemployment is 13.1 percent. The number of person employed per industry group is shown in Table H 4.3-7.

Table H 4.3-7 Employed Persons by Industry group in Davao Oriental

INDUSTRY TYPE	NUMBER OF EMPLOYED PERSONS	PERCENT CONTRIBUTION IN EMPLOYMENT	
Agriculture		54%	
Industry		5%	
Service		41%	

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

Agriculture and service sectors are still the main source of livelihood and income of families in the province. In terms of income and expenditure, an average family income in the province is 94,328 and Table H 4.3-8 shows the income distribution per expenditure item.

Table H 4.3-8 Income Distribution in Davao Oriental

EXPENDITURE ITEMS	PERCENT DISTRIBUTION OF INCOME
Food	44.2%
Rent	7.4%
Transportation and communication	4.1%
Education	5.9%
Medical care	3.7%
Tobacco and alcohol	2.3%

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

Based from the expenditure pattern of the province, its allocation to food items is quite lower than Regions IX and X. Additionally, expenditure for education and medical care is relatively higher than the two regions which implies that the families living in this area is providing relative importance to the social development of its family members.

Although employment rate is high in the province, 2006 poverty incidence remains to be high at 48.8 percent and is recorded to be increasing compared to 40.8 percent in 2000 and 47.9 percent in 2003. This implies that the number of population living below the poverty threshold and those who could not meet the basic food and non-food requirement of the family is increasing. In contrast, subsistence incidence is decreasing from 29.2 percent in 2003 to 25.2 percent in 2006. This shows that only 25.2 percent of the population could not meet their basic food requirements. It can be surmised that the other family living under poverty threshold could not meet other non-food requirements such as education and medical care which are both equally important for social development. Therefore, much attention is needed to address poverty plaguing the province through coupling economic and social development interventions and keeping in mind sustainability of these interventions through the wise use of its resources.

### 4.3.6 Compostela Valley

Compostela Valley is one of the newest provinces in the country and enjoys a typhoon free climate and an even rainfall throughout the year. The province's main source of livelihood is agricultural products.

The province has a total population of 637,366 with annual growth rate of 1.30. It is second to Davao Oriental with low population in the region of Southern Mindanao. Among the population, 89.8 percent are employed with visible underemployment of 11.4, and

unemployment rate of 10.2 percent. Despite the high employment rate, poverty incidence is increasing from 41.9 percent in 2003 to 47.9 percent in 2006. Subsistence incidence, on the other hand, is recorded to be low and decreasing from 26.9 percent to 24 percent. This indicates that almost half of the population are still living below the poverty threshold and are not able to meet the basic need of the family to live in a descent way. Since food requirements of the family are met by almost 76 percent of the population, other non-food requirements were not met by the family such as education and health. The local government, development agencies and/or funding institutions could provide assistance to help those below the poverty line in this province to meet their basic food and social requirements.

Based from the socio-economic data of the two provinces, the regional development will be best achieved if the social conditions of the provinces will also be addressed. Alleviating poverty is a requirement for the achievement of full economic growth not only in the urbanized area but also on the rural areas and/or countryside.

#### 4.3.7 North Cotabato

About 62 percent of the province labor force is engaged in agriculture related activities with a total employment of 108,000 while the remaining 38 percent are employed in service and industry related activities with 141,000 (32%) and 27,000 (6%) employment, respectively. The large concentration of employment in agriculture related endeavor is due to the fact that the province is engaged in agri-related activities.

In terms of income indicators, average annual family income of the province is recorded at PhP 82,098 and an annual average family expenditure of PhP 71,310. Table A1-6.6.7-1 presents the breakdown of expenses of a family.

As summarized in Table H 4.3-9 a large portion of the family income (50%) was spent for food while small percentages of the income was allocated for the education and medical care, among others. Given the percent distribution of income per expenditure item, a family has to increase its income in order to provide other needs of the family aside from food. This poor access to basic needs can be attributed to the low per capita threshold and high poverty incidence in the area.

It should be noted that among the provinces in Region XII, North Cotabato ranked third in terms of annual per capita poverty threshold at PhP 14,225 lower by PhP 910 of the estimated annual per capita poverty threshold in the region. However, poverty incidence is the least across the region at 34.6 percent, which is lower by 6.2 percent of the regional estimate. In general, North Cotabato remains to be poor relative to the provinces across regions.

Table H 4.3-9 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
EXI ENDITORE ITEM	1997	2000
Food	50.8	53.2
Rent	5.9	5.8
Transportation and Communication	2.9	3.4
Education	5.0	4.3
Medical care	3.5	1.8
Recreation	0.2	0.3
Alcoholic Beverages	1.1	0.9
Tobacco	1.5	1.4
Others	29.1	28.9

## 4.3.8 South Cotabato

Consistent to the economic source of the region, about 87 percent of the province labor force is engaged in agriculture and service related activities with a total employment of 194,000 (44%) and 189,000(43%), respectively and only 13 percent employed in industry related activities with 58,000 workers.

This source of employment was translated to an average annual family income of the province amounting to PhP 226,657 in 2000 that is higher by 35 percent compared from PhP 167,823 in 1997 and an annual average family expenditure of PhP 102,388 in 2000. Table H 4.3-10 presents the distribution of family income.

Table H 4.3-10 Summary of Percentage Allocation per Expenditure

EXPENDITURE ITEM	% ALLOCATION	
EXI ENDITORE ITEM	1997	2000
Food	51.0	44
Rent	8.2	9.8
Transportation and	3.2	5.4
Communication	3.2	5.1
Education	4.4	5.6
Medical care	2.5	2.8
Recreation	.3	0.6
Alcoholic Beverages	1.1	1.2
Tobacco	1.5	1.3
Others	27.8	29.3

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

Large amount of the budget remains to be for food consumption. However, there is a decrease in its percent allocation by -13.7 percent from 1997 level. The remaining income was spent thinly among other needs of the family.

With the consumption pattern provided in Table A6.6-10 it is evident that poverty is prevalent in the province having recorded an annual per capita poverty threshold of PhP 15,431 (higher by 1,206 estimated for the region) and poverty incidence of 37.3 percent.

### 4.3.9 Sarangani

More than half of the labor force approximately 62 percent is employed in agriculture related activities with a total employment of 108,000. On the other hand, 31 percent (54,000) is in service sector, while the remaining 7 percent (11,000) is engaged in industry related activities.

Based on the 2000 statistics, average annual family income of the province is recorded at PhP 73,294 and an annual average family expenditure of PhP 62,503. Table H 4.3-11 presents the percentage share of family expenses.

Table H 4.3-11 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALL	% ALLOCATION	
EXI ENDITORE ITEM	1997	2000	
Food	54.5	53.2	
Rent	6.7	5.8	
Transportation and Communication	-	3.4	
Education	3.7	4.3	
Medical care	-	1.8	
Recreation	.2	0.3	
Alcoholic Beverages	2.1	0.9	
Tobacco	1.9	1.4	
Others	30.9	28.9	

Source: The Philippine Countryside in Figures, National Statistical Coordination Board, 2006

A large percentage of the family income (53%) was spent for food while small percentages of the income were allocated for other family expenditure like medical care and education, among others.

The annual per capita poverty threshold of the province is lower by PhP 479 of the PhP estimated 14,225 for the region. Likewise, poverty incidence remains high at 20.6.

#### 4.3.10 Sultan Kudarat

The province has a total population of 675,644 with an annual growth rate of 1.97 percent (May 2000-August 2007). This implies a population increase of 89,139 from its May 2000 figures.

About 87 percent of the province labor force is engaged in agriculture and service related activities with a total employment of 194,000 (44%) and 189,000(43%), respectively and only 13 percent employed in industry related activities with 58,000 workers.

Based on the 2000 statistic, average annual family income of the province is recorded at PhP 75,756 and an annual average family expenditure of PhP 63,773. Table H 4.3-12 presents the percentage share of family expenses.

Table H 4.3-12 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
EXTENDITORETIEM	1997	2000
Food	48.9	50.8
Rent	7.2	6.2
Transportation and		
Communication	6.2	4.2
Education	4.6	5.5
Medical care	3.7	1.6
Recreation	0.5	0.2
Alcoholic Beverages	0.2	0.1
Tobacco	2.8	4.2
Others	25.9	27.2

Large chunk of the budget remains to be for food consumption while the remaining income is spent thinly among other needs of the family.

Sultan Kudarat is the poorest province in the region with a recorded average annual per capita threshold of PhP 13,036, which is lower by PhP 1,189 of the regional estimate. The province also recorded the highest poverty incidence in the region at 49.4 percent.

The socio-economic indicators show the poor condition of the provinces in the region. As such much attention should be given to poverty eradication. Development interventions/measures that that are geared toward increasing income of the family in order to provide meet their basic needs are necessary to be prioritized. In particular, education, health care facilities and housing are among the important areas to address.

#### 4.3.11 Basilan

The population of province is rapidly growing at 6.44 percent from approximately 300,000 in 2000 to about 409,000 in 2007. In just a 7-year period, almost 100,000 people were added in the population of the province.

Similar to the provinces in Mindanao, labor force in Basilan is concentrated in the agriculture sector with a total of 63,000 workers (62%). Approximately 31,000 (31%) are employed in the industry sector and the remaining 7 percent (7,000) in the service sector.

The average annual family income grew by 19.2 percent equivalent PhP 13,463. This brings the annual family income to PhP 83,413. Consequently, average annual expenditure increased to PhP 57,204. Table H 4.3-13 presents the percentage allocation of family income.

Table H 4.3-13 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
EXI ENDITORE HEM	1997	2000
Food	46.1	55.5
Rent	22.7	8.9
Transportation and		
Communication	3.4	3.8
Education	3.7	4.2
Medical care	0.8	0.8
Recreation	0.2	0.2
Alcoholic Beverages	0.6	0.5
Tobacco	2.8	2.4
Others	19.7	23.7

While the province has access to basic services, large portion of the income is allocated for food and only a small portion of the budget is shared by other equally important family needs, particularly housing, medical care/sanitation facilities, and education.

In terms of the 2006 poverty indicators, Basilan is categorized as one of the poorest provinces in the region with an annual per capita poverty threshold of PhP 13,255. This figure is below the region's estimate by PhP 2,278. Moreover, poverty in the region is high recorded at 39.1 percent. This translates to about 169,000 poor in the province.

### 4.3.12 Lanao del Sur

Of the total employment of 220,000, agriculture and service sectors dominated employment in the region with 52 percent ad 44 percent, respectively. While the remaining 4 percent of the labor force are found in the industry sector.

The average annual family income increases by PhP 13,463 from PhP 67,950 in 1997 income level. Likewise, average annual expenditure increased to PhP 66,433. Table H 4.3-14 presents the sources of expenses of a family.

Like any other provinces in Mindanao, food remains to be the most important portion of the family income. This is followed by the payment for rent while only small percentage share to other important needs like health and education.

The annual per capita poverty threshold of the province is PhP 16,567 higher than the region's estimate by PhP 1,034. However, poverty incidence worsens by 13.7 percent from the 44.6 percent in 2003 to 44.6 in 2006. This translates to 317,030 poor.

Table H 4.3-14 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
EXI ENDITORE ITEM	1997	2000
Food	53.9	53.1
Rent	10	12.9
Transportation and	2.6	3.3
Communication	2.0	3.3
Education	2.4	2.5
Medical care	2.4	0.4
Recreation	0.1	0.2
Alcoholic Beverages	-	-
Tobacco	2.4	1.7
Others	26.2	25.9

# 4.3.13 Maguindanao

Labor force in Maguindanao is concentrated in the agriculture having 70 percent (235,000) of the total labor force while the remaining 30 percent is divided to service and industry sectors with only 28 percent and 2 percent, respectively.

The average annual family income increases PhP 67,296 in 1997 income level to PhP 76,438. Likewise, average annual expenditure increased from PhP 51,739 in 1997 to PhP 63,594 in 2000. Table H 4.3-15 presents the sources of expenses of a family.

Table H 4.3-15 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
EXI ENDITORE ITEM	1997	2000
Food	58.6	53.7
Rent	6.8	8.1
Transportation and Communication	3.2	5.2
Education	2.8	2.7
Medical care	2.6	1
Recreation	0.2	0.2
Alcoholic Beverages	0.5	0.6
Tobacco	2.1	1.9
Others	23.2	26.6

 $Source: The \ Philippine \ Countryside \ in \ Figures, \ National \ Statistical \ Coordination \ Board, \ 2006$ 

A large percentage of the family income (53.7%) was spent for food while small percentages of the income were allocated for other family expenditure like medical care and education, among others.

The 2006 poverty indicators estimated an annual per capita poverty threshold of PhP 15,556. Moreover, poverty incidence ranked 2<sup>nd</sup> to the highest in the region recorded at 69.3 percent.

#### 4.3.14 Shariff Kabunsuan

The province is still in transition. Other relevant information is still integrated with the province of Maguinadanao.

Similar to Region XII, the socio-economic indicators show the poor condition of the provinces in ARMM. Thus, there is a need to focus intervention on poverty alleviation to improve the quality of life of the populace particularly increasing their capability to provide the basic needs (i.e., shelter, health care, education, among others) of the family other than food. The rapid increase in population will not be beneficial to the region as their poverty indicators worsen with the booming population.

### 5.0 INFRASTRUCTURE AND LOGISTICS

### 5.1 Seaports in Mindanao

There are 19 major public, seaports in Mindanao. These ports are classified as Port of Entry (serves big inter-island vessels) and Subport of Entry (serves smaller inter-island vessels). Complementing these major ports are several municipal ports, fish ports and private ports scattered in many coastal areas in Mindanao.

Among these major ports in the Mindanao, the Cagayan de Oro Port had registered the highest cargo traffic handled in 2002; while, the Ozamis Port handled the most number of passengers in the same year., The International Ports of Davao (Sasa Wharf) and General Santos (Makar Wharf) serve vessels mostly come from Singapore, Indonesia, Malaysia and Japan to bring abroad Mindanao products such as banana, pineapple, asparagus and others.,

Table H 5.1-1 Existing Major Ports in Davao

REGION	NAME OF PORT	LOCATION	CLASSIFICATION
IX	Zamboanga City Port	Zamboanga City	Port of Entry
	Pagadian City Port	Pagadian City	Subport of Entry
	Pulawan Port	Dapitan City	Subport of Entry
X	Cagayan de Oro Port	Cagayan de Oro City	Port of Entry/Intl. Port
	Ozamis Port	Ozamis City	Port of Entry
	Iligan Port	Iligan City	Port of Entry
	PHIVIDEC Terminal Port	Misamis Oriental	Intl. Container Terminal Port
XI	Sasa Wharf	Davao City	Port of Entry/Intl. Port
XII	Makar Wharf	Gen. Santos City	Port of Entry/Intl. Port
	Cotabato City Wharf	Cotabato City	Subport of Entry
	Gen. Santos City Fishport	Gen. Santos City	National Fishport
XIII	Nasipit Port	Agusan del Norte	Port of Entry
ARMM	Lipata Port	Surigao City	Subport of Entry
	Polloc Port	Maguindanao	Port of Entry/Intl. Port
	Jolo Port	Jolo, Sulu	Subport of Entry
	Siasi Port	Siasi, Sulu	Subport of Entry
	Bongao Port	Bongao, Tawi-Tawi	Subport of Entry
	Sitangkai Port	Sitangkai, Tawi-Tawi	Subport of Entry
	Lamitan Port	Basilan	Subport of Entry

## 5.1.1 Seaports by Region

### **Seaports in Region IX**

The three major ports in Region IX are the Port of Zamboanga City, classified as a port of entry which caters to inter-island domestic vessels., Ships calling at the Zamboanga Port include passenger boats sailing northbound to Cebu, Iloilo and Manila and boats plying southbound to Sulu, Basilan and Tawi-Tawi routes., The Pagadian City Port is a subport of entry and serves boats plying to Cotabato City and Zamboanga., The Pulawan Port in Dapitan City is also classified as a subport, of entry and part of the Strong Republic Nautical Highway. This port serves boats plying northbound for Cebu, Dumaguete and, Manila.

Complementing the foregoing ports are municipal ports to include the following: Dipolog City Port, Isabela Port in Basilan, Municipal Ports in the following municipalities: Siocon, Liloy, Sindangan, all in Zamboanga del Norte; Ipil, Malangas, Olutanga, Talusan and Naga in Zamboanga Sibugay; Margosatubig of Zamboanga del Sur.

### Seaports in Region X

Region X has four, major ports: Cagayan de Oro Port (an International Port of Entry), two Ports of Entry: Ozamis Port and Iligan Port; and a Container Terminal Port at PHIVIDEC Industrial Estate in Misamis Oriental.

Municipal Ports along the coast of Misamis Oriental and Misamis Occidental complement the services of the foregoing major ports in the region. These municipal ports may be found in the following areas: Plaridel, Oroquieta, Jimenez, Tangub, of Misamis Occidental; Balingoan, Gingoog, El Salvador, Tagoloan, Medina all of Misamis Oriental., These municipal ports are operated by the respective Local Government Units (municipalities/cities), while, the major ports are under the management of the Philippine Ports Authority (PPA).

## Seaports in Region XI

The only major port in Region XI is the Davao International Port of Entry or more popularly known as Sasa Wharf. The Sta. Ana Wharf, in Davao City is now under the management of the Davao City Government, and its operation has been limited to serve domestic vessels plying between Davao City and the Island Garden City of Samal (IGaCoS)., The Davao City Fish Port is under the management of the Philippine FishPort Development Authority (PFDA) of the Department of Agriculture.

Municipal Ports are also found in the following coastal municipalities:, Malalag, Malita, Digos City all of Davao del Sur; Mati, Lupon, Baganga, Cateel of Davao Oriental; and in, IGaCoS of Davao del Norte.

## **Seaports in Region XII**

Region XII has one International Port of Entry: Makar Wharf in General Santos City; one Subport of Entry: Cotabato City Wharf; and one Fish Port, the General Santos Fish Port. The Makar and Cotabato City Wharves are under the management of PPA; while the General Santos Fish Port, the second largest fish port in the country next to Navotas Port in Metro Manila is under the management of PFDA oft he Department of Agriculture.

The Kalamansig Port in Sultan Kudarat and Glan Port in Sarangani are municipal ports, but under the management of PPA.

### **Seaports in CARAGA Region**

The two major ports in Region XIII are the Nasipit Port in Agusan del Norte which is classified as a Port of Entry and serving domestic inter island vessels; and the Lipata Port in Surigao City which is the gateway for land vehicles traveling from Mindanao towards Samar, Bicol and Manila. Another port located in Surigao City is the jump off point of boats going to island municipalities of Surigao del Norte and the Siargao Island.

Municipal Ports are also available in coastal towns of Surigao del Norte and Surigao del Sur; Dinagat Province, and Siargao Island., These ports are found in the following, municipalities: Placer, Bacuag, Claver, Dapa of Surigao del Norte; Carrascal, Cantilan, Del Carmen, San Jose, Tandag, Lianga, of Surigao del Sur; San Jose, Loreto, Del Carmen, San Benito, of Dinagat; and ports in Siargao Island.

### **Seaports in ARMM**

The Polloc Port in Maguindanao is classified as an International Port of Entry. This facility is now managed by the ARMM Regional Port Management Authority. The port also serves domestic inter-island vessels regularly plying the Zamboanga, Iloilo, Manila and vice-versa routes.

The island provinces of Sulu and Tawi-Tawi have two ports each: Jolo Port and Siasi Port in Sulu Province; Bongao Port and Sitangkai Port in Tawi-Tawi Province, while, the Lamitan Port in Basilan complements the Isabela City Port which is under the geographic coverage of Region IX.

## **5.1.2** Seaports in CAAM

The Polloc Port in Maguindanao is the only port in CAAM with a category of an International Port of Entry. The Pagadian Port on the other hand is the only port in CAAM classified as a Subport of Entry. Other ports within CAAM are classified as municipal ports.

Table H 5.1-2 Ports in CAAM

PORT CLASSIFICATION	NAME OF PORT/LOCATION
International/Port of Entry	Polloc Port, Parang, Maguindanao, ARMM
Subport of Entry	Pagadian Port, Pagadian City, Region IX Lamitan Port, Isabela, ARMM
Municipal Ports	Isabela City Port, Region IX Siocon, Zamboanga del Norte, Region IX Ipil, Zamboanga Sibugay, Region IX Malangas, Zamboanga Sibugay, Region IX Olutanga, Zamboanga Sibugay, Region IX Talusan, Zamboanga Sibugay, Region IX Naga, Zamboanga Sibugay, Region IX Naga, Zamboanga Sibugay, Region IX Margosatubig, Zamboanga del Sur, Region IX Glan, Sarangani, Region XII Kalamansig, Sultan Kudarat, Region XII Bayang, Lanao del Sur, ARMM

# 5.2 Airports in Mindanao

# 5.2.1 Overview of Airports in Mindanao

Airports in Mindanao are classified according to the following: a) alternative international airports are airports serving principal centers of the country with regular domestic, flights and is allowed to accommodate international flights; b) trunkline, airports are those that serve principal commercial centers of the country with regular commercial flights having high traffic density; c) secondary airports are those that serve towns and cities with commercial flights but have less density of traffic; d) feeder airports are those located in towns and rural areas with no regular commercial flights; e) private airstrips are those that are used by private persons and private companies.

Mindanao has 19 public airports managed by the Civil Aviation Authority of the Philippines (CAAP), but four of them had been closed to traffic many years ago, while the rest remain operational. In addition to these airports are private airstrips used by private individuals and private companies located in different areas in Mindanao.

Table H 5.2-1 Existing Public, Airports in Mindanao

REGION	NAME OF AIRPORT	CLASSIFICATION	LOCATION	
	Zamboanga Airport	Alt. International	Zamboanga City	
IX	Pagadian Airport	Secondary	Pagadian City, Zamboanga del Sur	
IA	Dipolog Airport	Secondary	Dipolog City, Zamboanga del Norte	
	Siocon Airport	Feeder	Siocon, Zamboanga del Norte	
	Lumbia Airport	Trunkline	Cagayan de Oro City	
X	Ozamis Airport	Secondary	Ozamis City, Misamis Occidental	
	Baloi Airport <sup>1</sup>	Secondary	Baloi, Lanao del Norte	
XI	Davao Intl. Airport	Alt. International	Davao Ciy	
ΛI	Mati Airport <sup>2</sup>	Secondary	Mati, Davao Oriental	
XII	Gen. Santos Airport	Alt. International	Gen. Santos City	
	Lebak Airport <sup>3</sup>	Secondary	Lebak, Sultan Kudarat	
	Butuan Airport	Trunkline	Butuan City, Agusan del Norte	
XIII	Bislig Airport	Secondary	Bislig, Surigao del Sur	
AIII	Surigao Airport	Secondary	Surigao City, Surigao del Norte	
	Tandag Airport	Secondary	Tandag, Surigao del Sur	
	Awang Airport	Trunkline	DOS, Maguindanao	
ARMM	Jolo Airport	Secondary	Jolo, Sulu	
AKIVIIVI	Sanga-Sanga Airport	Secondary	Bongao, Tawi-Tawi	
	Malabang Airport <sup>4</sup>	Secondary	Malabang, Lanao del Sur	

<sup>&</sup>lt;sup>1</sup>Baloi Airport had been closed since 1992

# 5.2.2 Ongoing Airport Projects in Mindanao

Most ongoing airport projects in Mindanao involve the improvement of existing and operational airports under the management of Civil Aviation Authority of the Philippines (CAAP), of the Department of Transportation and Communications (DOTC).

The only two ongoing new airport projects in Mindanao are the: a) Laguindingan International Airport in Misamis Oriental; and b) M'lang Airport in Cotabato Province.

## 5.2.3 Airports in CAAM

There are only two major operational public airports located within CAAM. These are the Awang Airport in Maguindano and Pagadian Airport in Zamboanga del Sur. However, some airports, although located outside of CAAM, their service areas include CAAM.

<sup>&</sup>lt;sup>2</sup>Mati Airport closed to traffic

<sup>&</sup>lt;sup>3</sup>Lebak Airport had been closed since 2003

<sup>&</sup>lt;sup>4</sup>Malabang Airport had been closed since 1980s

Table H 5.2-2 Airports Located Outside CAAM with Service Areas in CAAM

NAME OF AIRPORT	LOCATION	SERVICE AREA WITHIN CAAM
Zamboanga Airport	Zamboanga City	Basilan, Zamboanga Sibugay
Dipolog Airport	Dipolog City, Zamboanga del Norte	Salug, Zamboanga del Norte
Gen. Santos Airport	Gen. Santos City	Glan, Kiamba, Maasim, Maitum, Malapatan all in Sarangani Prfovince; Polomolok and Tupi of So. Cotabato; Lutayan and Palimbang of Sultan Kudarat
Davao Intl. Airport	Davao City	Pantukan, Compostela Valley; Tarragona, Davao Oriental

## 5.3 ENERGY AND ELECTRIFICATION IN MINDANAO

The power supply profile in the Mindanao is hydro dominated, with Agus Hydroelectric Complex, composed of six power plants emanating from Lake Lanao in Marawi City down to Iligan City, comprised 48 percent of the supply. Another hydropower source is the Pulangi, IV Plant in Maramag, Bukidnon that provides 17 percent of the supply in the island., Another indigenous power source in the grid is the Mt. Apo Geothermal Plant, which at present contributes 7 percent of the supply., Oil-fired plants located in different areas in Mindanao contribute 27 percent of the supply. While, mini hydroelectric plants contribute the remaining 1 percent. The Agus and Pulangi Hydroelectric Plants have installed capacities of 727 MegaWatts (MW) and 255 MW, respectively., Mt. Apo Geothermal Plant on the other hand, has an installed capacity of 108 MW; Diesel Plants and Power Barges in different areas in Mindanao have a combined capacity of 412 MW; and mini hydroelectric plants in various areas have a total capacity of 13 MW. The combined installed capacity of all power generating plants supplying the Mindanao Grid has a total of 1,516.5 MW; while, the total dependable capacity is, 1,355.3 MW.

The Mindanao Grid has approximately 5,644 circuit-kilometer of overhead transmission lines and approximately a total of 2,027 Mega Volts Ampere (MVA) Substations. The grid relies on 138 kilo Volts (kV) and 69 kV transmission lines to deliver bulk power to load centers around the island.

Table H 5.3-1 Transmission LInes

TYPE OF TRANSMISSION LINES	LENGTH IN CIRCUIT- KILOMETER
138 kV	3,211
69 kV	2,433
Total	5,644

From the Lanao area where the Agus Hydroelectric Plants are located, the transmission line runs to Zamboanga in northwestern Mindanao via the Abaga-Aurora 138 kV double circuit transmission line, to northcentral and northeastern Mindanao (Misamis Oriental to Surigao) via the Abaga-Tagoloan 138 kV double circuit transmission line; and to southwest and southeastern Mindanao (Davao, Gen. Santos, Cotabato) via Agus 2-Kibawe 138 kV double circuit transmission line.

The National Transmission Corporation has divided the Mindanao Grid into six districts of operation, as follows:

- North Western Mindanao Area (NWMA)
- Lanao Area (LA)
- North Central Mindanao Area (NCMA)
- North Eastern Mindanao Area (NEMA)
- South Eastern Mindanao Area (SEMA)
- South Western Mindanao Area (SWMA)

## 5.3.1 Power Generation and Transmission Lines Projects in Mindanao

In 2006, the actual peak demand for power in Mindanao was put at 1,228 MW, while the present dependable capacity of the Mindanao Grid is 1,355 MW. Therefore, in 2006, Mindanao Grid had only about 127 MW of available standby power. Given the Average Annual Growth Rate (AAGR) of the peak demand for power in Mindanao at 5.56 percent, the present dependable capacity (1,355 MW) is already lower than the projected demand of 1,368 MW in 2008.

Recognizing the looming power supply shortage in Mindanao, the 2007-2014 Philippine Energy Plan (PEP) had committed the construction of two power generation projects to increase the system capacity of the Mindanao Grid. These projects are reflected in the table below.

Table H 5.3-2 Committed Power Projects in Mindanao

PROJECT NAME	CAPACITY (MW)	LOCATION
Mindanao 3 Geothermal Plant	50.00	Mt. Apo, Kidapawan, Cotabato
Sibulan Hydroelectric Plant	42.50	Sta. Cruz, Davao del Sur

With the steadily growing demand for electricity in Mindanao, there is a critical need to introduce higher-capacity transmission network to ensure reliable delivery of power from the generating plants to power substations in different areas in Mindanao. The National Transmission Corporation (TransCo) is now pursuing to upgrade its transmission backbone and the main artery of power in Mindanao to a 230 kV Transmission Lines. However, the

construction/rehabilitation of 138 and 69 kV Transmission Lines will still be pursued in areas where they are still appropriate and practicable.

Table H 5.3-3 On-going Transmission Projects in Mindanao

NAME OF PROJECT	PROJECT COMPONENT	STATUS
Abaga-Kirahon 230 kV TL	Transmission Line; New Kirahon Substation; Abaga	For Rebidding due to change
_	Substation improvement.; Kirahon Control Tower	of source of funds
Gen. Santos-Tacurong	Gen. Santos-Tacurong 138 kV TL; Gen. Santos	For Rebidding due to change
Transmission Lines	Substation Improvement; Tacurong Substation	of source of funds
	Improvement	
Kirahon-Maramag, 230 kV	Const. of 108 km. 230 kV TL double circuit on steel	
TL	towers	
Maramag-Bunawan 230	Maramag-Bunawan 230 kV TL; new Maramag	
kV TL	Substation;,	
Mindanao Substation	Installation of additional transformers at Substations in	On-going
Expansion Projects	Sta. Clara, Kibawe, Butuan, Bislig, New Loon, and	
	Tindalo	
Mindanao Subtransmission	69 kV lines Maco-Mati and Km. 13-Surigao City	
Line		
San Francisco 138 kV TL	138 kV San Francisco S/S Cut-in Point (Butuan-Bislig	
	line); new San Francisco Substation	
Zamboanga City 138 kV	Sangali-Pitogo Line; new Pitogo Substation	
Transmission Line		

Table H 5.3-4 For Implementation Transmission Projects in Mindanao

NAME OF PROJECT	PROJECT COMPONENT
Aurora-Polanco 138 kV Transmission	138 kV Transmission Line
Line	
Mindanao Mobile Transformer Project	Provision of N-1 mobile
·	contingency
Mindanao Reliability Compliance	Provision of N-1 security to
Project	Mindanao Substations
Mindanao Power Circuit Breaker	Replacement of old Power Circuit
Replacement Program	Breakers

### **5.3.2** Electrification in Mindanao

As of July 2007, 90.04 percent of the total number of barangays in Mindanao have already been electrified. Among regions in Mindanao, Region XI registered the highest rate, in barangay electrification at 99.57 percent; while, ARMM had the lowest rate at 75.94 percent.

Table H 5.3-5 Rate of Electrification in Mindanao, by Region, as of July 2007

REGION	NO. OF POTENTIAL BARANGAYS	NO. OF BARANGAYS WITH ELECTRICITY	UNELECTRIFIED BARANGAYS	% OF BARANGAY ELECTRIFICATION
IX	1,904	1,724	180	90.55
X	2,020	1,918	102	94.95
XI	1,160	1,155	5	99.57
XII	1,194	1,103	91	92.38
XIII	1,310	1,279	31	97.83
ARMM	2,461	1,869	592	75.94
Total	10,049	9,048	1,001	90.04

(Source: PEP 2007-2014)

# 5.3.2.1 Comparison of Level of Barangay Electrification in Mindanao and CAAM

From a report of the National Electrification Administration (NEA), as of November 2008, the rate of barangay electrification in Mindanao had reached 94.30 percent.

Table H 5.3-6 Rate of Electrification in Mindanao, by Region, as of November 2008

REGION	NO. OF POTENTIAL BARANGAYS	NO. OF BARANGAYS WITH ELECTRICITY	UNELECTRIFIED BARANGAYS	% OF BARANGAY ELECTRIFICATION
IX	1,865	1,814	51	97.26
X	1,843	1,768	75	95.93
XI	894	891	3	99.66
XII	1,031	990	41	96.02
XIII	1,310	1,291	19	98.55
ARMM	2,617	2,270	347	86.74
Total	9,560	9,024	536	94.39

(Source: NEA)

The NEA's report on the rate of barangay electrification does not reflect the specific municipalities and barangays already energized, thus, the exact number of barangays with electricity, within the Conflict-Affected Areas in Mindanao (CAAM) is not available in his report. However, the table below shows the level of barangay electrification in provinces which are part of CAAM. Broadly, the level of barangay energization in CAAM, (90.92 percent) is still below vis a vis the energization level in Mindanao at 94.39 percent.

Table H 5.3-7 Rate of Barangay Electrification in CAAM Provinces, as of November 2008

PROVINCE	NO. OF POTENTIAL BARANGAYS	NO. OF BARANGAYS WITH ELECTRICITY	% OF BARANGAY ELECTRIFICATION
Zambanga del Sur	628	621	98.89
Zamboanga Sibugay	558	526	94.26
Lanao del Norte	407	334	82.06
Cotabato	348	337	96.84
Sultan Kudarat	307	287	93.48
Sarangani	204	194	95.10
Basilan	269	266	98.88
Lanao del Sur	1,173	1,011	86.19
Maguindanao	576	488	84.72
Total	4,470	4,064	90.92

(Source: NEA)

## **5.3.3** Proportion of Household with Electricity

Electricity is currently supplied to 58 percent of CAAM. Maguindanao, Shariff Kabunsuan and Basilan have the provincial average below 50 percent (See Figure H 5.4-1, Table H 5.3-8). As expected, correlation analysis proved a negative correlation between the degree of electrification and the distance from national road and a positive correlation between the road condition -- that is the pavement ratio -- and electrification. Road condition and accessibility influence rural electrification because the extension of electrical cables follows the improved road network.

Table H 5.3-8 Electrification Ratio by Province (%)

PROVINCE NAME	WITH ELECTRICITY	WITHOUT ELECTRICITY
Lanao del Norte	62%	38%
Lanao del Sur	78%	22%
Compostela Valley	78%	22%
Davao Oriental	59%	41%
Maguindanao	32%	68%
North Cotabato	56%	44%
South Cotabato	82%	18%
Sarangani	62%	38%
Shariff Kabunsuan	47%	53%
Sultan Kudarat	55%	45%
Zamboanga del Norte	59%	41%
Zamboanga del Sur	55%	45%
Zamboanga Sibugay	59%	41%
Basilan	47%	53%

# 5.4 OVERVIEW OF ROAD NETWORK BY REGION

**Table H 5.4-1 Inventory of National Arterial Roads (in kilometers)** 

				-			•			
NATIONAL	TOTAL		SURFA	CE TYPE (R	OAD)		PA	VED	UNP	AVED
ARTERIAL ROADS	LENGTH (Km)	CONC. (km)	ASPHALT (km)	GRAVEL (km)	EARTH (km)	SUB- TOTAL	LENGTH (km)	PERCENT (%)	LENGTH (km)	PERCENT (%)
Region IX	1,000.61	434.81	263.59	286.49	6.30	991.19	698.40	70.46%	292.79	29.54%
Region X	997.77	514.45	320.26	153.00	0.00	987.71	834.71	84.51%	153.00	15.49%
Region XI	784.72	332.83	216.00	226.48	2.00	777.31	548.83	70.61%	228.48	29.39%
CARAGA	692.83	399.29	76.66	206.36	-	682.31	475.95	69.76%	206.36	30.24%
Region XII	336.71	271.13	62.98	-	-	334.11	334.11	100.00%	-	-
ARMM		505.30	18.90	399.80	7.30	943.30				

Mindanao Road Statistics DPWH-Mindanao Region

Table H 5.4-2 Inventory of National Secondary Roads (in kilometers)

SECONDARY	TOTAL		SURFA	CE TYPE (R	OAD)		PAVED		UNPAVED	
ROADS	LENGTH (Km)	CONC. (km)	ASPHALT (km)	GRAVEL (km)	EARTH (km)	SUB- TOTAL	LENGTH (km)	PERCENT (%)	LENGTH (km)	PERCENT (%)
Region IX	139.61	63.34	53.13	22.24	0.00	138.71	116.47	83.97%	22.24	16.03%
Region X	620.36	223.52	101.74	291.53	0.00	616.79	325.26	52.73	291.53	47.27
Regiona XI	690.24	301.63	10.38	345.04	29.14	686.19	312.01	45.47%	374.18	54.53%
CARAGA	679.70	183.38	4.77	486.53	•	674.68	188.15	27.89%	486.53	72.11%
Region XII	1,051.03	295.55	189.35	493.77	63.18	1,041.85	484.90	46.54%	556.95	53.46%
ARMM	999.29	589.64	19.11	378.58	7.30	994.63	608.75	61.20%	385.88	38.80%

Mindanao Road Statistics DPWH-Mindanao Region



Figure H 5.4-1 Mindanao National Road Network

## 5.4.1 Overview of Road Network by Region

## Road Network in Region IX

The Mindanao Road Statistics Report of DPWH shows that as of April 2006, the national road network of Region IX has a total length of 1,140.22 kilometers representing 14 percent of Mindanao's road network. This is made up of 1, 000.61 kilometers National Arterial Roads and 139.61 kilometers National Secondary Roads. Out of the 1,140.22 kilometers, 72.12 percent or 814.87 kilometers of the national road networks are paved. The unpaved portion recorded 27.88 percent or equivalent to 315.03 kilometers.

Of these national roads, concrete-surfaced roads comprise the largest length with 498.15 kilometers, Asphalt surfaced roads make up the second largest proportion, recording 316.72 kilometers. Gravel comes next with 308.73 kilometers. Earth-filled roads represent the lowest proportion of the national road networks at only 6.30 kilometers.

### Road Networks in Region X

The April 2006 inventory of the National Road Network for Mindanao by the DPWH shows that Region X had a total road length of 1, 618.13 kilometers. 997.77 kilometers of these represent the National Arterial Roads and the 620.36 kilometers make up the National Secondary Roads. The pavement type of the region's national roads is categorized into Concrete, Asphalt, Gravel and Earth-Filled. A large proportion of these roads are concrete with 737.97 kilometers. Gravel-surfaced roads represent the second largest proportion with 444.53 kilometers followed by Asphalt with 422.0 kilometers.

Of the total road network, only 13 percent or 2,491.340 kilometers were paved with either concrete or asphalt concrete. Proportion of paved roads was very high in national roads with about 61 percent or 987.9 kilometers paved and lowest in barangay road category with only 6 percent or 883.011 kilometers) of the aggregate length of barangay roads paved.

Davao Peninsula's national road network had a total length of 1,474.96 kilometers in 2006. 784.72 kilometers of these roads make up the National Arterial Roads and 690.24 kilometers are National Secondary Roads.

Only 58.82 percent of these national road networks are paved or equivalent to 860.84 kilometers while 41.18 percent or 602.66 kilometers remain unpaved. In terms of surface type, concrete-surfaced roads represent the largest proportion with 634.46 kilometers. The gravel type, having the second largest, had 571.52 kilometers. Asphalt comes next at 226.38 kilometers and Earth-Filled at 31.14 kilometers.

## Road Networks in Region XII

As of 2006, the region's national roads had 1,387.74 kilometers. The national arterial roads constitute 336.71 kilometers of the national road network while the national secondary roads make up the 1,051.03 kilometers.

Of the existing 1,387.74 kilometers of the national roads, 566.68 kilometers are concrete, having the highest proportion. The gravel type has 493.77 kilometers, Asphalt with 252.33 kilometers, and Earth-filled with 63.18 kilometers. Paved portions of the national road account for 59.52 percent or 819.01 kilometers. The unpaved portion has 40.48 percent or 556.95 kilometers.

#### **Existing Road Networks in Region XIII**

The National Road Network in CARAGA registered a total length of 1,372.53 kilometers as of April 2006. This translates to 692.83 kilometers of National Arterial Roads and 679.70 kilometers of National Secondary Roads.

Of the existing kilometrage, only 48.494 percent are paved. The unpaved portion recorded a larger percentage equivalent to 51.06. The road surface type includes Concrete, Asphalt, Gravel and Earth Fill. Concrete make up the largest proportion as it registered 566.68. Gravel type followed with 493.77 percent and the rest are Asphalt and Earth-Fill.

### **Existing Road Networks in ARMM**

The total length of the entire national road networks in ARMM as of 2003 is 8,515.20 kilometers. Of this total, 10.93 percent or 931.3 kilometers are national roads and 89.07 or 7,583.8 kilometers are local roads. These local roads can be classified into provincial roads with 1,286.533 kilometers, municipal/city roads with 499.063 kilometers, and barangay roads with 5,554.817 kilometers. (RDP, ARMM, 2004-2010). Only 8.3 percent of the region's entire road network is paved and the rest are classified as asphalt, gravel and earth surfaces.

The Mindanao Road Statistics of the DPWH revealed the national road of ARMM in particular, had a total length of 999.29 kilometers in 2006. This is however the aggregate of the national secondary roads only. As to the national arterial roads, there is no official data yet.

The significant length of these national secondary roads is paved. The paved portion recorded 61.20 percent or 608.75 kilometers. With regard to surface type, Concrete had the highest proportion at 589.64 kilometers. The rest are Gravel, Asphalt and Earth Fill.

#### 5.4.2 Overview of Road Networks in CAAM

The National Road Networks in CAAM are classified into National Arterial and National Secondary Roads. The Table H 5.4-3 below shows the National Arterial and National Secondary Roads that link among the CAAM areas and to the neighboring Non-CAAM areas and vice-versa:

Table H 5.4-3 National Arterial and National Secondary Roads

		TOTAL
NAME OF ROAD	CLASSIFICATION	TOTAL SECTION LENGTH
Lanao-Pagadian-Zamboanga Road	Arterial	315.26
Tukuran-Karomatan Road	Arterial	2.74
Liloy-Siocon Road	Arterial	110.23
Siocon-Sirawai Road	Arterial	21.26
Limpapa-Sibuco Road	Arterial	13.35
Isabela-Maluso Road	Arterial	9.63
Isabela-Lamitan Road	Arterial	14.93
Zamboanga Sibugay Roads	Secondary	33.92
Pagadian City Roads	Secondary	2.38
Linamon-Zamboanga Road	Arterial	88.47
Iligan-Marawi Road	Arterial	19.35
Lanao del Norte I Roads	Secondary	19.65
Lanao del Norte II Roads	Secondary	36.74
Surigao del Sur-Davao Oriental	Arterial	313.94
Davao del Sur-Sarangani Coastal Road	Arterial	143.81
Compostella-Cateel Road	Secondary	63.86
Montevista-Compostella-Mati Boundary	Secondary	85.33
Davao-Cotabato Old Road	Secondary	10.36
Davao-Cotabato Bypass Road	Secondary	2.62
Davao-Cotabato Road	Arterial	126.37
Cotabato-Allah Valley-Marbel,	Arterial	33.24
Cotabato-Lanao/Davao Road	Arterial	1.94
Cotabato-Marbel Road	Arterial	51.73
Matalam-M'lang-Bagontapay Road	Secondary	23.84
Midsayap-Makar Road	Secondary	23.54
Cotabato City Circumferential Rd.	Secondary	20.27
Makar-Kiamba Road	Secondary	17.66
Maitum-Lake Sebu Road	Secondary	13.99
Saranggani-Davao del Sur Coastal Rd.	Secondary	100.11
Saranggani-Sultan Kudarar Rd	Secondary	108.04
Midsayap-Marbel Road	Secondary	24.39
Surallah-Lake Sebu-Maitum Rd.	Secondary	95.83
Awang-Upi-Kalamansig-Palimbang Road	Secondary	95.83
Maguindanao	Secondary	247.19
Lanao I	Secondary	120.28
Lanao II	Secondary	162.60
Marawi City	Secondary	28.31
Basilan	Secondary	134.34

# 5.4.3 CAAM Barangay Roads

Travel distance between barangays Bolingan (Talusan), Napnapon and San Roque (Palimbang), and Datalpandan (Guindulungan) and the national road is more than 100 kilometers.

Titay, Payao, Sibuco, Lapuyan, Lambayong (Mariano Marcos), Labangan, Malangas, Tungawan, Sumisip, Sen. Ninoy Aquino, Datu Piang, Olutanga, Makilala, Aleosan,

Pagayawan (Tatarikan), Lantawan, Baliguian, Butig, Glan, San Pablo, Alicia, Balabagan, Roseller Lim, Lumba-Bayabao (Maguing), Ampatuan, South Upi, Pagagawan, Guindulungan, Rajah Buayan, Maguing, Pantar, Pikit, Tuburan

Table H 5.4-4 (a) Distance of Barangay from National Road

			DISTANCE FROM
PROVINCE	MUNICIPALITY	BARANGAY	NATIONAL
			ROAD(KM)_AVERAGE
ZAMBOANGA SIBUGAY	TALUSAN	Bolingan	480
SULTAN KUDARAT	PALIMBANG	Napnapon	145
SULTAN KUDARAT	PALIMBANG	San Roque	140
<i>MAGUINDANAO</i>	GUINDULUNGAN	Datalpandan	100
NORTH COTABATO	BANISILAN	Pinamulaan	94
NORTH COTABATO	ARAKAN	Sumalili	92
NORTH COTABATO	BANISILAN	Kiaring	92
SULTAN KUDARAT	PALIMBANG	Kidayan	90
SULTAN KUDARAT	PALIMBANG	Kiponget	90
NORTH COTABATO	BANISILAN	Carugmanan	88
NORTH COTABATO	BANISILAN	Capayangan	86
NORTH COTABATO	BANISILAN	Paradise	85
NORTH COTABATO	BANISILAN	Thailand	85
NORTH COTABATO	ARAKAN	Lanao Kuran	84
NORTH COTABATO	BANISILAN	Kalawaig	84
SULTAN KUDARAT	PALIMBANG	Molon	84
NORTH COTABATO	ARAKAN	Dallag	80
NORTH COTABATO	BANISILAN	Tumbao-Camalig	80
SULTAN KUDARAT	PALIMBANG	Kalibuhan	80
SULTAN KUDARAT	PALIMBANG	Maganao	80
SULTAN KUDARAT	PALIMBANG	Batang-baglas	78
NORTH COTABATO	ARAKAN	Meocan	76
SULTAN KUDARAT	PALIMBANG	Kisek	76
NORTH COTABATO	ARAKAN	Kabalantian	75
NORTH COTABATO	ARAKAN	Libertad	75
NORTH COTABATO	ARAKAN	Napalico	75
NORTH COTABATO	BANISILAN	Malinao	75
NORTH COTABATO	BANISILAN	Miguel Macasarte	75
NORTH COTABATO	BANISILAN	Wadya	75
SULTAN KUDARAT	PALIMBANG	Malatuneng (Malatunol)	75
NORTH COTABATO	ARAKAN	Badiangon	74
NORTH COTABATO	BANISILAN	Puting-bato	73
NORTH COTABATO	ARAKAN	Binoongan	72
NORTH COTABATO	ALAMADA	Bao	70
NORTH COTABATO	ARAKAN	Malibatuan	70
NORTH COTABATO	BANISILAN	Banisilan Poblacion	70
SULTAN KUDARAT	PALIMBANG	Akol	70
SULTAN KUDARAT	PALIMBANG	Butril	70
SULTAN KUDARAT	PALIMBANG	Namat Masla	70
SULTAN KUDARAT	PALIMBANG	Bambanen	70
SULTAN KUDARAT	PALIMBANG	Mina	70
SULTAN KUDARAT	PALIMBANG	Balwan (Bulan)	70
SULTAN KUDARAT	PALIMBANG	Medol	69
NORTH COTABATO	ARAKAN	Kinawayan	68
NORTH COTABATO	ARAKAN	Ganatan	67
NORTH COTABATO	ARAKAN	Datu Matangkil	66
NORTH COTABATO	ARAKAN	Greenfield	65

Table H 5.4-4 (b) Distance of Barangay from National Road

PROVINCE	MUNICIPALITY	BARANGAY	DISTANCE FROM NATIONAL ROAD(KM)_AVERAGE
NORTH COTABATO	ARAKAN	Tumanding	65
NORTH COTABATO	BANISILAN	Busaon	65
NORTH COTABATO	BANISILAN	Gastay	65
NORTH COTABATO	BANISILAN	Poblacion II	65
SHARIFF KABUNSUAN	DATU BLAH T. SINSUAT	Sedem	65
NORTH COTABATO	ARAKAN	Anapolon	64
NORTH COTABATO	ARAKAN	Salasang	64
NORTH COTABATO	BANISILAN	Tinimbacan	64
NORTH COTABATO	ARAKAN	Santo Nino	63
NORTH COTABATO	ARAKAN	Makalangot	61
NORTH COTABATO	ARAKAN	Maria Caridad	61
NORTH COTABATO	BANISILAN	Solama	61
ZAMBOANGA DEL NORTE NORTH COTABATO	KALAWIT BANISILAN	Marcelo Pantar	60
SULTAN KUDARAT	KALAMANSIG	Sangay	60
SULTAN KUDARAT	PALIMBANG	Ligao	60
ZAMBOANGA SIBUGAY	MABUHAY	Taguisian	59
ZAMBOANGA SIBUGAY	MABUHAY	Abunda	58
NORTH COTABATO	ARAKAN	Naje	58
NORTH COTABATO	ARAKAN	Doroluman	57
NORTH COTABATO	MATALAM	Arakan	57
SULTAN KUDARAT	LEBAK	Salangsang	57
ZAMBOANGA SIBUGAY	MABUHAY	Bangkaw-bangkaw	56
ZAMBOANGA SIBUGAY	MABUHAY	Caliran	56
ZAMBOANGA SIBUGAY	MABUHAY	Tandu-Comot (Katipunan)	55
ZAMBOANGA SIBUGAY	PAYAO	Dalama	55
ZAMBOANGA SIBUGAY	MABUHAY	Pamansaan	54
ZAMBOANGA SIBUGAY	MABUHAY	Sawa	53
SULTAN KUDARAT	PALIMBANG	Tibuhol (East Badiangon)	53
ZAMBOANGA SIBUGAY	MABUHAY	Santo Nino (Caliran)	50
ZAMBOANGA SIBUGAY	PAYAO	Labatan	50
ZAMBOANGA SIBUGAY	TALUSAN	Kasigpitan	50
ZAMBOANGA SIBUGAY	TALUSAN	Tuburan	50
NORTH COTABATO	KABACAN	Tamped	50
SULTAN KUDARAT	KALAMANSIG	Datu Wasay	50
SULTAN KUDARAT	PALIMBANG	Baliango	50
SULTAN KUDARAT	PALIMBANG PALIMBANG	Baranayan	50 50
SULTAN KUDARAT SULTAN KUDARAT	PALIMBANG PALIMBANG	Barongis Kanipaan	50
SULTAN KUDARAT SULTAN KUDARAT	PALIMBANG	Kanipaan Langali	50
SULTAN KUDARAT	PALIMBANG	Poblacion	50
BASILAN	HADJI MUHTAMAD	TAUSAN	50
BASILAN BASILAN	LANTAWAN	Tausan	50
LANAO DEL SUR	TUBARAN	Gadongan	50

## 6.0 SOCIAL SECTOR

## **6.1 EDUCATION SUBSECTOR**

# 6.1.1 Elementary and Secondary Facilities

Table H 6.1-1 School to Catchment Population, Philippines, Mindanao, CAAM, SY 2005 to 2006

EDUCATION	PROJECTED	NUMBER O	F SCHOOL	CATCHMENT I PER FAC	
EDUCATION	POPULATION	ELEMENTARY	SECONDARY	ELEMENTARY	SECONDARY
Philippines	85,298,300	35,526	6,002	2,401	14,212
Mindanao	20,291,600	8,813	1,414	2,302	14,350
CAAM	6,529,857	3,998	736	1,633	8,872

Source: \*NSCB, 2007; \*\*Social Survey Report (Barangay Profiling), 2007

Table H 6.1-2 School to Catchment Population, Philippines, Mindanao, CAAM, SY 2005 to 2006

	ADMIN UNIT		NUMBER OF SCHOOL		FACILITY PI	ER BARANGAY	FACILITY PER MUNICIPALITY	
EDUCATION	BRGY	MUN	ELEM	SECON	ELEM PER BARANGAY	SECONDARY SCHOOL PER BARANGAY	ELEM	SECONDARY SCHOOL PER BARANGAY
Philippines	41,980	1,501	35,526	6,002	0.85	0.14	23.6682	4.00
Mindanao	10,049	412	8,813	1,414	0.88	0.14	21.3908	3.43
CAAM	3,882	169	3,998	736	1.03	0.19	23.6568	4.35

Source: \*NSCB, 2007; \*\*Social Survey Report (Barangay Profiling), 2007

Note: (Mun – Municipalities, BRGY – Barangay, Elem – Elementary, Secon – Secondary)

Table H 6.1-3 Number of School Facilities in CAAM (per Barangay and per municipality)

SCHOOL FACILITIES	HIGH SCHOOL	ELEMENTARY	DAYCARE	MADRASAH	INFORMAL
No. of Facilities	736	3998	2791	1820	159
Facility Per Barangay	0.19	1.03	0.72	0.47	0.04
Facility Per Municipality	4.36	918.02	3.04	598.64	0.27

Source: National Statistic Coordination Board (NSCB), 2005; CAAM Population based on Social Survey Report, 2007

Table H 6.1-4 Number of School and Ratio to School Age Population, Philippines Mindanao, CAAM, SY 2005 to 2006

AREA	1995-2000 ACTUAL APGR	NUMBER OF SCHOOLS  2005 PROJECTED SCHOOL TO SCHOOL AGE POPULATION POPULATION RATIO			SCHOOL-AGE POPULATION		OL TO OL-AGE ATION
		ELEM	SECON	ELEM	SECON	ELEM	SECON
Philippines	2.20	35,526	6,002	12,638,700	7,774,800	356	1,295
Mindanao	2.27	8,813	1,414	3,281,900	2,017,400	372	1,427
CAAM	2.55	2,503	736	1,345,000	815,500	537	1,108

Source: \*NSCB, 2007; \*\*Social Survey Report (Barangay Profiling), 2007 Note: (ELEM – Elementary, SECON – Secondary)

Table H 6.1-5 Number of School and Ratio to School Age Population CAAM Provinces SY 2005 to 2006

AREA	TOTAL		NUMBER OF SCHOOLS		2005 PROJECTED SCHOOL-AGE POPULATION		SCHOOL TO SCHOOL-AGE POPULATION RATIO	
	BRGY	MUN	ELEM	SECON	ELEM	SECON	ELEM	SECON
CAAM	3,882 <sup>d</sup>	169 <sup>e</sup>	2,503	736	1,345,000	815,500	537	1,108
Zamboanga del Norte	162	7	138	34	123,600	72,900	896	2,144
Zamboanga del Sur	306	11	172	45	134,200	79,200	780	1,760
Zamboanga Sibugay	389	16	366	82	98,700	58,000	270	707
Isabela City	45	1	0	0	13,100	8,100		
Lanao del Norte	311	16	93	23	138,800	83,900	1,492	3,648
Compostela Valley	10	1	15	10	18,100	11,400	1,207	1,140
Davao Oriental	13	1	31	9	5,600	3,500	181	389
North Cotabato	404	13	378	136	179,900	109,200	476	803
South Cotabato	38	2	64	22	124,300	77,400	1,942	3,518
Sarangani	97	5	117	23	79,300	46,900	678	2,039
Sultan Kudarat	228	11	245	75	110,000	67,500	449	900
Basilan <sup>a</sup>	232	12	142	38	a	A		
Lanao del Sur	1,156	40	404	137	133,700	82,300	331	601
Marawi City <sup>b</sup>			NO DATA	NO DATA	b	В		
Maguindanao	281	22	182	52	159,500	98,200	876	1,888
Shariff Kabunsuan <sup>c</sup>	210	11	156	50	c	C		

Source of Actual Data: National Statistics Office (NSO), National Statistic Coordination Bord (NSCB)

Note: (MUN - Municipalities, BRGY - Barangay, ELEM - Elementary, SECON - Secondary)

a 2000 population included in region IX

b 2000 population included in Lanao del Sur

c 2000 population included in Maguindanao

Table H 6.1-6 (a) List of Barangays without Elementary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
	BALIGUIAN	Diangas, Guimotan, Tan-awan
	SIBUCO	Basak, Cabbunan, Jatian, Kamarangan, Litawan
		Balagunan, Bucana, Jose P. Brillantes, Sr. (Old Lituban), Datu Sailila,
ZAMBOANGA	SIOCON	Mateo Francisco, S. Cabral, Tagaytay
DEL NORTE		Balonkan, Bongon, Catuyan, Lagundi, Libucon, Macuyon, Minanga,
	CIDAWAI	Motong, Napulan, Panabutan, Pina, Pisa Itom, Pisa Puti, Pula Bato, Pulang
	SIRAWAI	Lupa, San Nicolas (Pob.), San Roque (Pob.), Sipakit, Sirawai Proper
		(Pob.), Talabiga
	IMELDA	Little Baguio
	IPIL	Lower Ipil Heights, Lower Taway, Magdaup, Timalang
	MALANGAS	Logpond
ZAMBOANGA	NAGA	Gubawang, Taytay Manubo
SIBUGAY	ROSELLER T. LIM	Katipunan, Kulambugan, Mabini
	SIAY	Logpond
	TITAY	Palomoc, Pulidan
	TUNGAWAN	Batungan, Langon
	AURORA	Bagong Pitogo, Balide, Inasagan, Maguikay, San Jose
	DIMATALING	Magahis
ZAMBOANGA	DINAS	Benuatan, East Migpulao, Pisa-an, Songayan, Tarakan
DEL SUR	KUMALARANG	null
DELISUK	LABANGAN	Dimasangca, Upper Campo Islam (Pob.)
	PAGADIAN CITY (Capital)	null
	TABINA	null
	BACOLOD	Alegria, Babalayan Townsite, Binuni, Demologan, Dimarao, Kahayag,
	BACOLOD	Minaulon, Pagayawan, Punod (Maliwanag)
	BALOI	Angandog (Bulao), Sangcad (Cormatan )
	KAUSWAGAN	Magoong
	LINAMON	
		Babasalon, Daan Campo, Ilihan, Lamigadato, Lower Caningag
	MAGSAYSAY	(Perimbangan), Lubo, Malabaogan, Mapantao, Pangao, Pelingkingan,
		Rarab, Talambo, Tawinian, Tipaan, Tombador, Upper Caningag
	MATURICAG	(Taguitingan)
	MATUNGAO	Santa Cruz
	MUNAI	Bacayawan, Dalama, Lindongan, Lingco-an, Lininding, Madaya,
		Maganding, Pantao, Pantao-A-Munai, Pantaon, Punong, Sandigamunai, Tagoranao, Tamparan (Mandaya)
LANAO DEL	NUNUNGAN	null
NORTE	PANTAO RAGAT	Madaya, Calawe, Natangcopan, Poblacion West, Tangcal
NORTE	PANTAR	Bangcal, Bowi, Pantao-Marug,, Pitubo, Poona-Punod, Punod
		Sulo, Cabasaran, Cadayonan, Kablangan, Linindingan, Lumbatan,
	POONA PIAGAPO	Lupitan, Madamba, Madaya, Maliwanag, Piangamangaan, Tagoranao,
		Tangclao, Timbangalan
	SALVADOR	null
	SAPAD	Gamal, Inudaran II, Karkum, Maito Salug, Mama-anon
		Bangco, Dalama, Poblacion, Cabongbongan, Calipapa, Capocao, Mina,
	SULTAN NAGA DIMAPORO	Pandanan, Payong, Pikalawag, Pikinit, Piraka, Ramain, Rebucon, Topocon
		(Capocgo)
	TAGOLOAN	Dalamas, Darimbang, Dimayon, Kiazar (Pob.), Malimbato
		Bayabao, Berwar, Big Meladoc, Bubong, Lamaosa, Linao, Lindongan,
	TANGCAL	Lingco-an, Papan, Poona Kapatagan, Punod, Small Banisilon, Small
		Meladoc

Table H 6.1-6 (b) List of Barangays without Elementary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
THOVINGE	ALAMADA	Lower Dado, Raradangan
	ALEOSAN	New Leon
	BANISILAN	Banisilan Poblacion, Miguel Macasarte
СОТАВАТО	CARMEN	Tacupa
(NORTH	LIBUNGAN	Kapayawi
COTABATO)	M'LANG	Buayan
,		Barangay Poblacion 2, Barangay Poblacion 4, Barangay Poblacion 5,
	MIDSAYAP	Barangay Poblacion 7, Bual Sur, Central Labas, Upper Glad II
	PIGKAWAYAN	Poblacion II, South Manuangan
SARANGANI	KIAMBA	Lebe
SOUTH COTABATO	POLOMOLOK	Lapu, Sulit
	ESPERANZA	New Panay
	LEBAK	Aurelio F. Freires (Poblacion II), Barurao II
SULTAN	PALIMBANG	Batang-baglas, Kabuling, Kalibuhan, Kidayan, Libua, Medol
KUDARAT	PRESIDENT QUIRINO	Mangalen
	SEN. NINOY AQUINO	Banali, Midtungok
	AKBAR	Manguso, Paguengan, Upper Bato-bato
	AL-BARKA	NULL
	HADJI MOHAMMAD AJUL	NULL
	HADJI MUHTAMAD	BALUK-BALUK
BASILAN	LAMITAN	Maligaya, Malakas, Malinis (Pob.), Matatag, Matibay
BASILAN	LANTAWAN	Bagbagon, Baluk-baluk
	MALUSO	Guanan North (Zone I)
	SUMISIP	Benembengan Upper, Cabcaban, Tikus
	UNGKAYA-PUKAN	NULL
	TUBURAN	Tablas Usew
	BULUAN	Lower Siling, Upper Siling
	DATU PAGLAS	Elbebe, Alef, Makat, Mao, Puya
	DATU PIANG	Balanakan, Pandi, Tee
	MAMASAPANO	Daladap, Bagumbong, Dabenayan, Liab, Pimbalakan, Pusao, Sapakan
	PAGAGAWAN	Bulod, Balatungkayo (Batungkayo)
	PAGLAT	Damalusay, Salam, Tual
	GUINDULUNGAN	Sampao, Datalpandan, Kateman, Lambayao, Muti
	DATU SAUDI AMPATUAN	Bakat, Inaladan, Kabengi, Kitango
	DATU UNSSAY	Bulayan, Macalag, Malangog, Panangeti, Tuntungan
MACHINDANAO	MANGUDADATU	Paitan, Luayan, Panapan, Tenok
MAGUINDANAO	PANDAG	Lower Dilag, Pandag
	PAGALUNGAN	Kudal
	GEN. S. K. PENDATUN	Bulod, Pidtiguian, Kaladturan, Lao-lao, Lasangan, Makainis, Quipolot, Sadangen, Tonggol, Upper Lasangan
	SHARIFF AGUAK	Bialong, Malingao, Bagong, Dale-Bong, Kubentong, Labu-labu II, Sayap,
	(MAGANOY)	Taib, Talibadok, Tina, Tuayan I
	SULTAN SA BARONGIS (LAMBAYONG)	Tugal
	TALAYAN	Boboguiron, Fugotan, Fukol, Kedati, Lanting, Marader, Tambunan I, Timbaluan
	TALITAY	Gadungan, Kilalan, Makadayon, Manggay, Pageda
	BULDON	Karim
	DATU ODIN SINSUAT (DINAIG)	Kakar, Linek
	KABUNTALAN (TUMBAO)	Poblacion, Matilak
SHARIFF	MATANOG	Bayanga Norte
KABUNSUAN	NORTHERN KABUNTALAN	Paulino Labio
	SULTAN KUDARAT	Bulalo, Calsada, Damaniog, Inawan, Kabuntalan, Katuli, Ladia, Mulaug,
	(NULING)	Nalinan
	SULTAN MASTURA	Kirkir, Namuken
	SSETTIVITABLOIDE	, 1 (WILLIAM VII

Table H 6.1-6 (c) List of Barangays without Elementary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
	BACOLOD-KALAWI	
	(BACOLOD GRANDE)	Tambo, Poblacion I, Ampao, Gandamato, Lama, Liawao, Tuka II
	BALABAGAN	Buenavista, Batuan, Budas, Buisan (Bengabeng), Calilangan, Lower Itil, Magulalung Occidental
	BALINDONG (WATU)	Dimarao, Bantoga Wato, Bubong Cadapaan, Dibarusan, Kaluntay, Lumbac Lalan, Paigoay, Talub, Tantua Raya
	BAYANG	Tagoranao, Tangcal, Bagoaingud, Bairan (Pob.), Bandingun, Cadingilan Occidental, Cadingilan Oriental, Condaraan Pob. (Condaraan Dimadap), Cormatan, Lalapung Central, Lalapung Proper (Pob.), Lalapung Upper, Lumbac Cadayonan, Mimbalawag, Pama-an, Pamacotan, Parao, Poblacion (Bayang), Porotan, Silid, Tomongcal Ligi, Torogan
	BINIDAYAN	Bubong, Pantar, Pindolonan, Dansalan Dacsula, Macaguiling, Masolun, Olama, Picotaan, Tuca
	BUADIPOSO-BUNTONG	Bubong, Cadayonan, Pindolonan, Tangcal, Bacolod, Bangon Proper, Datu Tambara, Dirisan, Kalakala, Lumbatan Manacab, Pualas, Ragondingan East, Ragondingan Proper, Raya Buntong (Buntong East)
	BUBONG	Bualan, Dibarosan, Dimayon, Pagayawan, Pantar, Madanding, Palao, Bansayan, Basingan, Bubonga, Didagun, Dalaon, Dilabayan, Diolangan, Malungun, Masorot, Montiaan, Poblacion (Bubong), Punud
	BUMBARAN	NULL
	BUTIG	Cabasaran, Butig Proper, Coloyan Tambo, Malungun, Ragayan
	DITSAAN-RAMAIN	Bayabao, Darimbang, Polo, Baclayan Raya, Buadi Alao, Buadi Babai, Buadi Oloc, Buayaan Madanding, Buayaan Raya, Gadongan, Linamon, Lumbatan Ramain, Maindig Ditsaan, Mandara, Pagalongan Buadiadingan, Pagalongan Ginaopan, Pagalongan Proper, Ramain Poblacion, Ramain Proper, Sultan Pangadapun, Sundiga Bayabao
	GANASSI	Balintad, Pamalian, Barit, Barorao, Bato Batoray, Campong Sabela, Gui, Lumbacaingud, Masolun, Pantaon A, Taliogon
	CALANOGAS	NULL
LANAO DEL SUR	KAPAI	Dilimbayan, Babayog, Cormatan, Dimunda, Gadongan, Kibolos, Macadar, Malna Proper
	KAPATAGAN	Salaman, Barao, Inudaran, Minimao, Pinantao, Upper Igabay
	LUMBA-BAYABAO (MAGUING)	Cabasaran, Pagayawan, Tongcopan, Bacolod II, Bantayao, Barit, Calilangan, Cormatan Langban, Dialongana, Dilindongan-Cadayonan, Gadongan, Gambai, Kasola, Lalangitun, Lama, Lobo Basara, Macaguiling, Mapoling, Minaring Diladigan, Posudaragat, Sabala Bantayao, Salolodun Berwar, Sunggod, Tamlang
	LUMBACA-UNAYAN	Bangon (Dilausan)
	LUMBATAN	Dalama, Minanga, Madaya, Alog, Basayungun, Bubong Macadar, Dalipuga
	LUMBAYANAGUE	Dilimbayan, Pindolonan, Bagoaingud, Cadingilan A, Dala (Dalama), Poctan
	MADALUM	Bacayawan, Basak, Cadayonan, Linao, Bato, Bagoaingud, Poblacion, Delausan, Diampaca, Gadongan, Gurain, Kormatan, Lilitun, Padian Torogan I, Punud, Racotan, Riray, Sogod Kaloy, Tongantongan, Udangun
	MADAMBA	Balintad, Liangan, Pantar, Tambo, Balagunun, Biabe, Bubong Uyaan, Lakitan, Lumbaca Ingud, Pagayonan, Pangadapan, Tubaran, Tulay, Uyaan Proper (Pob.)
	MAGUING	Bubong, Dilimbayan, Lumbac, Pagalongan, Agagan, Balagunun, Balawag, Botud, Buadiangkay, Bubong Bayabao, Camalig, Cambong, Ilalag, Kianodan, Lilod Borocot, Lilod Maguing, Panayangan, Pilimoknan, Ragayan (Rungayan)
	MALABANG	Bacayawan, Matampay, Badak Lumao, Bagoaingud, Boniga, Campo Muslim, Bunk House, Cabasaran (South), Calibagat, Calumbog, Mananayo, Mable, Macuranding, Matalin, Matling, Sarang, Sumbagarogong, Tambara, Tiongcop
	MARANTAO	Matampay, Banga-Pantar, Batal-Punud, Bubong Madanding (Bubong), Camalig Bandara Ingud, Cawayan Bacolod, Inudaran Campong, Lumbac Kialdan, Maul, Maul Lumbaca Ingud, Nataron, Pagalongan Bacayawan, Poona Marantao

Table H 6.1-6 (d) List of Barangays without Elementary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
	MARAWI CITY	Dansalan, Somiorang, Datu Naga, Dulay West, Fort, Lumbaca Madaya (Pob.), Marinaut West, Navarro (Datu Saber), Norhaya Village, Pantaon (Langcaf), Rapasun MSU, Raya Madaya I, Raya Madaya II, Raya Saduc, Rorogagus East, Sabala Manao, Saduc Proper, Sangcay Dansalan
	MAROGONG	Cabasaran, Cadayonan, Mapantao, Bagumbayan, Cairantang, Diragun, Mayaman, Pabrica, Paigoay Coda, Pasayanan, Puracan, Sarang
	MASIU	Gindolongan Alabat, Lomigis Sucod, Lumbaca Ingud, Mai Ditimbang Balindong, Matao Araza, Putad Marandang Buisan, Sambowang Atawa
	MULONDO	Dansalan, Madaya, Pindolonan, Bagoaingud, Bangon, Buadi-Abala, Buadi-Insuba, Bubonga Guilopa, Cairatan, Cormatan, Guilopa, Kitambugun, Lama (Bagoaingud), Lilod, Poblacion (Dado), Sugan
	PAGAYAWAN(TATARIKAN)	Mapantao, Biala-an, Diampaca, Guiarong, Kalaludan, Madang, Paigoay, Rangiran, Rubokun
	PIAGAPO	Basak, Pantaon, Bansayan, Bangco (Pob.), Katumbacan, Bagoaingud, Taporug, Aposong, Bubong Tawa-an, Lininding, Tapocan, Talao, Palao, Tawaan
LANAO DEL SUR	POONABAYABAO(GATA)	Bualan, Bugaran, Dilausan, Dongcoan, Rogan Tandiong Dimayon
LANAU DEL SUK	PUALAS	Bualan, Masao, Badak, Bolinsong, Gadongan, Linuk, Tomarompong
	SAGUIARAN	Batangan, Linao, Maliwanag, Natangcopan, Panggao, Pindolonan, Alinun, Bagoaingud, Cadayon, Cadingilan, Lumbac Toros, Patpangkat, Sungcod
	SULTANDUMALONDONG	Pagalongan, Tagoranao, Buta (Sumalindao), Malalis
	SULTANGUMANDER	Mapantao, Anas, Durian, Liangan (Pob.), Mimbalawag, Torogan, Tual
	TAGOLOANII	Kalilangan, Malinao, Cadayonan, Sigayan, Malingon, Bagoaingud, Bantalan, Bayog, Dagonalan, Dimalama, Gayakay, Inodaran, Kitaon, Mama-an Pagalongan, Marawi
	TAMPARAN	Minanga, Cabasaran, Lindongan, Lumbac, Beruar, Dasomalong, Ginaopan, Lilod Tubok, Linuk Oriental, Lumbaca Lilod, Mala-abangon, Poblacion II, Miondas, New Lumbacaingud, Picarabawan, Poblacion IV, Raya Niondas, Salongabanding, Saminunggay
	TARAKA	NULL
	TUBARAN	Alog, Gadongan, Gaput, Guiarong, Malaganding, Metadicop, Paigoay- Pimbataan, Riantaran, Wago
	TUGAYA	Bubong, Tangcal, Pindolonan I
	WAO	NULL

Table H 6.1-7 (a) List of BARANGAYs without Secondary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
	BALIGUIAN	Diangas, Guimotan, Kilalaban, Tan-awan
ZAMBOANGA	LABASON	Immaculada
	SIBUCO	Basak, Cabbunan, Cusipan, Dinulan, Jatian, Kamarangan, Litawan, Panganuran, Pasilnahut
DEL NORTE	SIOCON	Balagunan, Bucana, Jose P. Brillantes, Sr. (Old Lituban), Datu Sailila, Mateo Francisco, S. Cabral, Tagaytay
	SIRAWAI	Balonkan, Bongon, Catuyan, Lagundi, Libucon, Macuyon, Minanga, Motong, Napulan, Panabutan, Pina, Pisa Itom, Pisa Puti, Pugos, Pula Bato, Pulang Lupa, San Nicolas (Pob.), San Roque (Pob.), Sipakit, Sirawai Proper (Pob.), Talabiga
	ALICIA	Bagong Buhay, Litayon
	BUUG	Bagong Borbon, Guintuloan, Lantawan, Pulog
	DIPLAHAN	Butong, Lobing, Mejo, Tuno
	IMELDA	Cana-an, Israel (Balian Israel), Mali Little Baguio, Pulawan (Mt. View)
	IPIL	Labi, Logan, Lower Ipil Heights, Lower Taway, Magdaup
	KABASALAN	Bolo Batallion, Gacbusan, Goodyear, Little Baguio, Riverside, Sayao, Shiolan, Tamin, Tampilisan
ZAMBOANGA	MABUHAY	Pamansaan
SIBUGAY	MALANGAS	Logpond, Malungon, Palalian, Rebocon, Sinusayan, Tackling, Tigabon
	NAGA	San Isidro, Taytay Manubo
	OLUTANGA	Galas, Looc Sapi, Pulo Laum, San Isidro, San Jose
	PAYAO	Mayabo (Santa Maria), Talaptap
	ROSELLER T. LIM	Katipunan, Kulambugan, Mabini
	SIAY TALUSAN	Bagong Silang, Logpond, Princesa Sumama, Villagracia Aurora, Bualan
	TUNGAWAN	San Vicente, Santo Nino, Batungan, Timbabauan
	AURORA	Bagong Maslog, Bagong Pitogo, Baki, Balide, Inasagan, La Paz (Tinibtiban), Maguikay, Napo, Panaghiusa, Resthouse, San Jose, San Juan
	DIMATALING	Baha, Magahis, Mahayag, Mercedes, San Roque, Tipangi, Upper Ludiong
ZAMBOANGA	DINAS	Bacawan, Benuatan, Nangka, Nian, Pisa-an, San Isidro, Songayan, Tarakan, Upper Dimaya, West Migpulao
ZAMBOANGA DEL SUR	LABANGAN	Bagalupa, Bulanit, Combo, Dimasangca, Lower Sang-an, New Labangan, Upper Campo Islam (Pob.)
	LAPUYAN	Mahalingeb, Talabab
	MARGOSATUBIG	Kolot, Magahis, Sagua
	SAN PABLO	Sagasan, Tubo-pait
	TUKURAN	Alindahaw, Balimbingan, Libertad, Manilan, San Antonio, Tinotungan
	BACOLOD	Alegria, Babalayan Townsite, Binuni, Demologan, Dimarao, Kahayag, Minaulon, Pagayawan, Punod (Maliwanag)
	BALOI	Angandog (Bulao), Batolacongan (Basagad), Landa (Gadongan), Lumbac, Mamaanun, Matampay, Sangcad (Cormatan ), Sarip-Alawi (Payawan), Sigayan
	KAUSWAGAN	Tingintingin
	LINAMON	Napo, Larapan, Magoong
	MAGSAYSAY	Babasalon, Daan Campo, Durianon, Ilihan, Lamigadato, Lower Caningag (Perimbangan), Lubo, Malabaogan, Mapantao, Pangao, Pelingkingan, Rarab,
	MATUNGAO	Somiorang, Talambo, Tawinian, Tipaan, Tombador, Upper Caningag (Taguitingan) Pangi, Santa Cruz, Bubong, Radapan, Matampay, Puntod, Somiorang
	MATUNGAU	Bacayawan, Dalama, Balabacun, Balintad, Kadayonan, Lindongan, Lingco-an,
LANAO DEL NORTE	MUNAI	Lininding, Lumba-Bayabao, Madaya, Maganding, Matampay, Panggao, Pantao Pantao-A-Munai, Pantaon, Punong, Sandigamunai, Tagoranao, Tamparan (Mandaya), Taporog
	PANTAO RAGAT	Poblacion East, Bobonga Pantao Ragat, Bobonga, Radapan, Culubun, Madaya, Matampay, Natangcopan, Poblacion West, Tangcal, Tongcopan
	PANTAR	Kalilangan, Poblacion, Bangcal, Bowi, Dibarosan, Kalanganan Lower, Pantao-Marug, Pantao-Ranao, Pitubo, Poona-Punod, Punod, Sundiga-Punod, Tawanan, West Pantar
	POONA PIAGAPO	Sulo, Alowin, Bubong-Dinaig, Cabasaran, Cadayonan, Daramba, Kablangan, Linindingan, Lumbatan, Lupitan, Madamba, Madaya, Maliwanag, Nunang, Nunungan, Pantao Raya, Piangamangaan, Tagoranao, Tangclao, Timbangalan
	SAPAD	Baning, Gamal, Inudaran I, Inudaran II, Karkum, Mabugnao, Maito Salug, Mala Salug, Mama-anon, Pili

Table H 6.1-7 (b) List of BARANGAYs without Secondary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
THOTHCE		Bangco, Kauswagan, Dalama, Lantawan, Mabuhay, Poblacion, Sugod, Bangaan,
	SULTAN NAGA	Cabongbongan, Calibao, Calipapa, Capocao, Ditago, Kirapan, Koreo, Maguindanao,
	DIMAPORO	Mamagum, Mina, Pandanan, Payong, Pikalawag, Pikinit, Piraka, Ramain, Rebucon,
		Sigayan, Tantaon, Topocon (Capocgo)
LANAO DEL	TACOLOAN	Dalamas, Darimbang, Dimayon
NORTE	TAGOLOAN	Kiazar (Pob.), Malimbato
		Bayabao, Berwar, Big Banisilon, Big Meladoc, Bubong, Lamaosa, Linao, Lindongan,
	TANGCAL	Lingco-an, Papan, Pelingkingan, Poona Kapatagan, Punod, Small Banisilon, Small
		Meladoc, Somiorang, Tangcal Proper
	ALAMADA	Lower Dado, Raradangan
	ALEOSAN	New Leon
	ARAKAN	Allab, Datu Ladayon, Gambodes, Maria Caridad
	BANISILAN	Miguel Macasarte
	CARMEN	Kilala, Katanayanan, Kibenes, Langogan, Lanoon, Macabenban, Palanggalan, Pebpoloan, Tacupan, Tupig
	KABACAN	Simbuhay, Tamped
GOT LE LTO	LIBUNGAN	Kapayawi
COTABATO	M'LANG	Buayan
(NORTH	MAKILALA	Kawayanon, Luna Norte, New Cebu, Villaflores
COTABATO)	MATALAM	Ilian, Arakan, Kidama, Natutungan, Patadon West
		Barangay Poblacion 3, Barangay Poblacion 4, Barangay Poblacion 5, Barangay
	MIDSAYAP	Poblacion 7, Bual Sur, Central Labas, Upper Glad II
		Balacayon, Banucagon, Buricain, Central Panatan, Datu Mantil, Lower Baguer,
	PIGKAWAYAN	Lower Pangangkalan, Midpapan II, Mulok, Tigbawan, Upper Pangangkalan,
		Kadingilan, Cabpangi
	PIKIT	Bulod, Bulol, Calawag, Dalingaoen (Lalingaon), Damalasak, Ginatilan, Pamalian,
	<u> </u>	Talitay
SARANGANI	KIAMBA	Lebe, Tablao
SOUTH COTABATO	POLOMOLOK	Lapu Sulit, Sumbakil
COTABATO	COLUMBIO	Lasak, Makat (Sumali Pas)
	ESPERANZA	Laguinding
	LAMBAYONG	
	(MARIANO	Sigayan, Caridad (Cuyapon), New Cebu
	MARCOS)	
	LEBAK	Aurelio F. Freires (Poblacion II), Barurao II
SULTAN		Mina, Akol, Baliango, Balwan (Bulan), Bambanen, Barongis, Batang-baglas, Butril,
KUDARAT	PALIMBANG	Domolol, Kabuling, Kalibuhan, Kidayan, Kiponget, Libua, Ligao, Lumitan, Maguid,
	TTEMMETHY	Medol, Napnapon, Tibuhol (East Badiangon)
	DDECIDENT	Wasag
	PRESIDENT QUIRINO	Mangalen
	SEN. NINOY	
	AQUINO	Banali, Midtungok, Tacupis
	AKBAR	Linongan, Manguso, Paguengan, Upper Bato-bato, Upper Sinangkapan
	AL-BARKA	Apil-apil, Bucalao
	HADJI	Basakan, Langil, PANDUCAN
BASILAN	MOHAMMAD	Dabakan, Langu, I ANDUCAN
	AJUL	
	LAMITAN	Maligaya, Bohebessey, Boheyawas, Luksumbang, Malakas, Malinis (Pob.), Matatag, Matibay, Simbangon, Tumakid, Ulame
BASILAN		Raghagon Raungis Calugusan Lawi-lawi Luuk-Maluha Matikang Pamuoalin
BASILAN	LANTAWAN	Bagbagon, Baungis, Calugusan, Lawi-lawi, Luuk-Maluha, Matikang, Pamucalin, Panducan, Paniongan
BASILAN	LANTAWAN MALUSO	Bagbagon, Baungis, Calugusan, Lawi-lawi, Luuk-Maluha, Matikang, Pamucalin, Panducan, Paniongan  Batungal, Mahayahay Upper (Zone II), Muslim Area, Upper Garlayan
BASILAN	MALUSO	Panducan, Paniongan  Batungal, Mahayahay Upper (Zone II), Muslim Area, Upper Garlayan  Benembengan Lower, Benembengan Upper, Cabcaban, Kaumpamatsakem, Mebak,
BASILAN	MALUSO SUMISIP	Panducan, Paniongan  Batungal, Mahayahay Upper (Zone II), Muslim Area, Upper Garlayan  Benembengan Lower, Benembengan Upper, Cabcaban, Kaumpamatsakem, Mebak, Tikus
BASILAN	MALUSO	Panducan, Paniongan  Batungal, Mahayahay Upper (Zone II), Muslim Area, Upper Garlayan  Benembengan Lower, Benembengan Upper, Cabcaban, Kaumpamatsakem, Mebak,

Table H 6.1-7 (c) List of BARANGAYs without Secondary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
	AMPATUAN	Salman, Saniag, Tubak
	BULUAN	Lower Siling, Upper Siling
	DATU PAGLAS	Bulod, Elbebe, Alef, Alip (Pob.), Damawato, Kalumenga (Kalumanga), Makat, Mangadeg, Mao, Palao sa Buto, Puya
	DATU SAUDI- AMPATUAN	Bakat, Gawang, Inaladan, Kabengi, Kitapok, Penditen
	DATU ABDULLAH SANGKI	Tukanolocong (Tukanologong)
<u> </u>	DATU UNSAY	Bulayan, Macalag, Malangog, Panangeti, Tuntungan
	RAJAH BUAYAN	Gaunan, Baital, Bakat, Malibpolok, Tabungao
	DATU PIANG	Balong, Ambadao, Balanakan, Butilen, Kalipapa, Masigay, Pandi, Tee
	MANGUDADATU	Kalian, Paitan, Luayan, Panapan, Tenok, Tinambulan
	MAMASAPANO	Daladap, Tuka, Bagumbong, Dabenayan, Dasikil, Liab, Lusay, Pimbalakan, Pusao, Sapakan
I WIACTUHNIJANACI I	PAGAGAWAN	Nabundas, Balatungkayo (Batungkayo), Limbalud
	PAGLAT	Damalusay, Salam, Tual
	PANDAG	Lower Dilag, Pandag
	PAGALUNGAN	Bagoenged, Kudal
	GUINDULUNGAN	Sampao, Ahan, Datalpandan, Kalumamis, Kateman, Lambayao, Muti
	GEN. S. K.	Bulod, Pidtiguian, Kaladturan, Kulasi, Lao-lao, Lasangan, Makainis,
	PENDATUN	Midpandacan, Quipolot, Sadangen, Tonggol, Upper Lasangan
	SHARIFF AGUAK	Bialong, Malingao, Bagong, Dale-Bong, Kubentong, Labu-labu II, Sayap, Taib,
	(MAGANOY)	Talibadok, Tina, Tuayan I
	SOUTH UPI	Bongo
	SULTAN SA	
	BARONGIS	Tugal, Masulot, Paldong, Papakan, Tukanakuden
-	(LAMBAYONG)	Discours Month Dates into England Flat World' Lord's Lines and
	TALAYAN	Binangga North, Boboguiron, Fugotan, Fukol, Kedati, Lanting, Linamunan, Marader, Tamar, Tambunan I, Timbaluan
	TALITAY	Kilalan, Makadayon, Manggay, Pageda
	BARIRA	Korosoyan, Lamin, Liong, Lipa, Minabay
	BULDON	Ampuan, Karim, Mataya, Nuyo, Oring, Pantawan, Piers, Rumidas
	DATU BLAH T. SINSUAT	Laguitan, Meti, Sinipak
	DATU ODIN SINSUAT (DINAIG)	Margues, Ambolodto, Bitu, Dulanga, Kakar, Tenonggos
	KABUNTALAN (TUMBAO)	Bagumbayan, Dadtumog (Dadtumeg), Ganta, Langeban, Liong, Matilak, Payan
SHARIFF	MATANOG	Kidama, Bayanga Norte
	NORTHERN KABUNTALAN	Balong, Montay, Damatog, Guiawa, PIndatuan, Sabaken
	PARANG	Campo Islam, Cotongan, Datu Macarimbang Biruar, Manion, Orandang
	SULTAN KUDARAT (NULING)	Banatin, Calsada, Damaniog, Darapanan, Inawan, Kabuntalan, Kakar, Katamlangan (Matampay), Katuli, Ladia, Matengen, Mulaug, Nalinan, Nara, Nekitan, Olas, Pingping, Raguisi, Sambolawan, Ungap
	SULTAN MASTURA	Boliok, Bungabong, Kirkir, Macabico (Macabiso), Namuken, Tariken
	UPI	Blensong, Renti, Rifao, Tinungkaan

Table H 6.1-7 (d) List of BARANGAYs without Secondary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
	BACOLOD-KALAWI (BACOLOD GRANDE)	Sugod, Ilian, Tambo, Poblacion I, Balut, Dilabayan, Dipatuan, Gandamato, Gurain, Lama, Liawao, Lumbaca-Ingud, Orong, Rorowan, Tuka I, Tuka II
	BALABAGAN	Buenavista, Ilian, Lumbac, Pindolonan, Bagoaingud, Batuan, Budas, Buisan (Bengabeng), Calilangan, Lorenzo, Lower Itil, Magulalung Occidental, Molimoc, Plasan
	BALINDONG (WATU)	Cadayonan, Dimarao, Pagayawan, Dado, Bantoga Wato, Bolinsong, Borakis, Bubong Cadapaan, Dibarusan, Kaluntay, Lati, Limbo, Lumbac Lalan, Lumbac Wato, Magarang, Padila, Paigoay, Pantaragoo, Poblacion (Balindong), Talub, Tantua Raya, Tuka Bubong
	BAYANG	Sugod, Cadayonan, Mapantao, Pantar, Tagoranao, Tangcal, Bagoaingud, Bairan (Pob.), Bandingun, Bialaan, Cadingilan Occidental, Cadingilan Oriental, Condaraan Pob. (Condaraan Dimadap), Cormatan, Gandamato, Lalapung Central, Lalapung Proper (Pob.), Lalapung Upper, Linuk (Pob.), Liong, Lumbac, Cadayonan, Mimbalawag, Pama-an, Pamacotan, Parao, Patong, Poblacion (Bayang), Porotan, Raya Cadayonan, Samporna (Pob.), Sapa, Silid, Sumbag (Pob.), Tangcal Proper (Pob.), Tomarompong, Tomongcal Ligi, Torogan, Tuca (Pob.)
	BINIDAYAN	Bubong, Lumbac, Madaya, Pantar, Pindolonan, Badak, Baguiangun, Bubonga- Ranao, Dansalan, Dacsula, Kialilidan, Macaguiling, Masolun, Picotaan, Tambac, Tuca
	BUADIPOSO- BUNTONG	Dansalan, Bubong, Cadayonan, Pindolonan, Tangcal, Bacolod, Bangon, Bangon Proper, Buadiposo Lilod, Buadiposo Proper, Buadiposo Raya, Datu Tambara, Dirisan, Kalakala, Lumbatan Manacab, Lunduban, (Ragondingan), Minanga (Buntong), Pualas, Ragondingan East, Ragondingan Proper, Raya Buntong, (Buntong East), Sapot
LANAO DEL SUR	BUBONG	Bualan, Dibarosan, Dimayon, Pagayawan, Pantar, Pindolonan, Palao, Polayagan, Bagoaingud, Bansayan, Basingan, Bubonga Didagun, Dalaon, Dilabayan,, Dimapatoy, Dimayon Proper, Diolangan, Guiguikun, Malungun, Masorot, Matampay Dimarao, Miabalawag, Poblacion (Bubong), Punud, Ramain Bubong, Salipongan
	BUTIG	Cabasaran, Butig Proper, Coloyan Tambo, Malungun, Ragayan, Samer, Sundig, Timbab
	DITSAAN-RAMAIN	Bayabao, Darimbang, Polo, Baclayan Raya, Barimbingan, Buadi Babai, Buadi Oloc, Buayaan, Madanding, Buayaan Raya, Bubong Dangiprampiai, Dangimprampiai, Ditsaan, Gadongan, Linamon, Lumbatan Ramain, Mandara, Pagalongan, Buadiadingan, Pagalongan Ginaopan, Pagalongan Proper, Ramain Poblacion, Ramain Proper, Sultan Pangadapun, Sundiga Bayabao
	GANASSI	Balintad, Lumbac, Pantaon, Pamalian, Bagoaingud, Barit, Barorao, Bato Batoray, Baya, Campong a Raya, Campong Sabela, Gui, Linuk, Lumbacaingud, Masolun, Pantaon A, Sekun Matampay, Taganonok
	KAPAI	Dilimbayan, Pantaon, Babayog, Cormatan, Dilabayan, Dimunda, Gadongan, Kasayanan, Kasayanan West, Kibolos, Kining, Macadar, Malna Proper,Parao
	KAPATAGAN	Tabuan, Bongabong, Salaman, Barao, Inudaran, Kabaniakawan, Lusain, Minimao, Pinantao, Upper Igabay
	LUMBA-BAYABAO (MAGUING)	Cabasaran, Pagayawan, Tongcopan, Bantayao, Barit, Baugan, Calilangan, Carandangan-Mipaga, Cormatan, Langban, Dialongana, Dilindongan-Cadayonan, Gadongan, Galawan, Gambai, Kasola, Lalangitun, Lama, Lobo Basara, Macaguiling, Mapoling Maribo (Pob.), Minaring Diladigan, Posudaragat, Sabala Bantayao, Salolodun Berwar, Sunggod, Tamlang
	LUMBACA-UNAYAN	Calipapa, Bangon (Dilausan), Calalon, Tringun
	LUMBATAN	Dalama, Minanga, Madaya, Alog, Basayungun, Buad, Bubong Macadar, Budi, Dalipuga, Lugue, Penaring, Picotaan, Tambac
	LUMBAYANAGUE	Bualan, Dilimbayan, Pindolonan, Bagoaingud, Cabuntungan, Cadingilan, Cadingilan A, Dala (Dalama), Diromoyod, Lamin, Mapantao-Balangas, Poctan

Table H 6.1-7 (e) List of BARANGAYs without Secondary School Facilities

PROVINCE	MUNICIPALITY	BARANGAY
		Bacayawan, Basak, Abaga, Bubong, Cabasaran, Cadayonan, Dibarosan, Linao,
	MADALUM	Lumbac, Bato, Bagoaingud, Delausan, Diampaca, Gadongan, Gurain, Kormatan,
		Liangan I, Lilitun, Linuk, Padian Torogan I, Punud, Racotan, Riray, Sabanding,
		Sogod Kaloy, Tamporong, Tongantongan, Udangun
	MADAMBA	Balintad, Liangan, Pantar, Tambo, Balagunun, Biabe, Bubong Uyaan, Lakitan,
	IVII IDI IIVIDI I	Lumbaca Ingud, Pagayonan, Pangadapan, Tubaran, Tulay, Uyaan Proper (Pob.)
		Bubong, Dilimbayan, Lumbac, Agagan, Balawag, Botud, Buadiangkay, Bubong
	MAGUING	Bayabao, Camalig, Cambong, Ilalag, Kianodan, Lilod Borocot, Lilod Maguing,
		Panayangan, Pilimoknan, Ragayan (Rungayan)
		Bacayawan, Matampay, Tacub, Montay, Badak Lumao, Bagoaingud, Boniga,
	MALABANG	Bunk House, Cabasaran (South), Calibagat, Calumbog, Inandayan, Mable,
		Macuranding, Matling, Pasir, Pialot, Sarang, Sumbagarogong, Tambara,
		Tiongcop  Lubo, Matampay, Tacub, Banga-Pantar, Batal-Punud, Bubong Madanding
	MARANTAO	(Bubong), Camalig Bandara Ingud, Cawayan Bacolod, Inudaran Campong,
	WAKANTAO	Lumbac Kialdan, Mantapoli, Maul, Pagalongan Bacayawan, Poona Marantao
		Dansalan, Pagayawan, Paridi, Somiorang, Bubonga, Punod, Datu Naga, Dulay
		West, Fort, Kormatan, Matampay, Lumbaca Madaya (Pob.), Malimono, Marinaut
		West, Navarro (Datu Saber), Norhaya Village, Olawa Ambolong, Pantaon
	MARAWI CITY	(Langcaf), Papandayan, Papandayan Caniogan, Rapasun MSU, Raya Madaya I,
		Raya Madaya II, Raya Saduc, Rorogagus East, Sabala, Manao, Saduc Proper,
		Sagonsongan, Sangcay Dansalan, South Madaya Proper, Tongantongan-Tuca
		Timbangalan
		Cabasaran, Cadayonan, Canibongan, Mapantao, Bagumbayan, Cairantang,
	MAROGONG	Calumbog, Diragun, Mantailoco, Marogong East, Mayaman, Pabrica, Paigoay
		Coda, Puracan, Romagondong, Sarang
		Gindolongan Alabat, Lanco Dimapatoy, Lomigis Sucod, Lumbaca Ingud,
	MASIU	Macabangan Imbala, Macadaag, Talaguian, Manalocon Talub, Maranat Bontalis,
		Matao Araza, Sambowang Atawa
LANAO DEL SUR		Dalama, Dansalan, Madaya, Pindolonan, Bagoaingud, Bangon, Buadi-Abala,
	MULONDO	Buadi-Insuba, Bubonga Guilopa, Cormatan, Guilopa, Kitambugun, Lama
	PAGAYAWAN	(Bagoaingud), Lilod, Lumbaca Ingud, Sugan
	(TATARIKAN)	Ilian, Linindingan, Mapantao, Ayong, Biala-an, Diampaca, Guiarong, Kalaludan, Madang, Paigoay, Rangiran, Rubokun
	(TATAKIKAN)	Basak, Pantaon, Paridi, Bansayan, Bangco (Pob.), Katumbacan, Olango, Pantar,
	PIAGAPO	Lumbaca Mamaan, Palacat, Paling, Bubong Ilian, Mentring, Bagoaingud,
		Bubonga Mamaanun, Taporug, Gacap, Aposong, Bubong Tawa-an, Lininding,
		Tapocan, Sapingit, Kalanganan, Talao, Palao, Tawaan, Pindolonan, Mamaanun
	PUALAS	Bualan, Masao, Badak, Bantayan, Bolinsong, Boring, Gadongan, Linuk,
	1 UALAS	Romagondong, Tamlang, Tomarompong
		Batangan, Dilimbayan, Linao, Maliwanag, Mapantao, Natangcopan, Panggao,
	SAGUIARAN	Pindolonan, Alinun, Bagoaingud, Cadayon, Cadingilan, Comonal, Dilausan,
	arm manufacture and	Gadongan, Lumbac Toros, Lumbayanague, Mipaga, Patpangkat, Sungcod
	SULTANDUMALOND	Pagalongan, Tagoranao, Buta (Sumalindao), Dinganun, Guilopa (Dingunun),
	ONG	Malalis
	SULTANGUMANDER	Maganding, Mapantao, Anas, Durian, Mimbalawag, Ramitan, Torogan, Tual, Bualan, Dimayon, Liangan, Pantao, Madanding, Bangon, Bugaran, Dilausan,
	SULTANGUMANDER	Dongcoan, Gadongan, Punud, Rogan Tandiong Dimayon, Talaguian
		Kalilangan, Malinao, Cadayonan, Sigayan, Malingon, Bagoaingud, Bantalan,
	TAGOLOANII	Bayog, Dagonalan, Dimalama, Gayakay, Inodaran, Kianibong, Kingan, Kitaon,
		Mama-an Pagalongan, Marawi, Tagoloan Poblacion
		Minanga, Cabasaran, Lindongan, Lumbac, Pagayawan, Balutmadiar, Beruar,
		Bocalan, Dasomalong, Dilausan, Ginaopan, Lilod Tubok, Linuk Oriental,
	TAMPARAN	Lumbaca Lilod, Lumbacaingud South, Maidan Linukm, Mala-abangon, Miondas,
		New Lumbacaingud, Pagalamatan Linukm Picarabawan, Poblacion IV, Raya
		Niondas, Raya, Tamparan, Salongabanding, Saminunggay, Tubok
	TUBARAN	Alog, Polo, Madaya, Bagiangun, Beta, Datumanong, Gadongan, Gaput,
	-02/11/11	Guiarong, Malaganding, Metadicop, Paigoay-Pimbataan, Riantaran, Wago
	TUGAYA	Bubong, Lumbac, Mapantao, Buadi Dico, Cayagan, Gurain, Maidan, Pindolonan
		I, Poblacion (Ingud), Putad

# 6.1.2 Madrasah Education

Table H 6.1-8 (a) List of Barangays without Madrasah Facilities

DD OVIVVOR		(a) List of Barangays without Madrasah Facilities
PROVINCE	MUNICIPALITY	BARANGAY
	BALIGUIAN	Alegria, Diangas, Guimotan, Kauswagan, Kilalaban, Linay, Lumay, Malinao, Mamad, Mamawan, Milidan, Nonoyan, Poblacion, San Jose, Tamao, Tan-awan
	KALAWIT	Batayan, Botong, Concepcion, Daniel Maing (Dominolog), Fatima (Lacsutan), Gatas, Marcelo, New Calamba, Palalian, Paraiso, Pianon, San Jose, Tugop*
	LABASON	Antonino (Pob.), Bobongan, Dansalan, Gabu, Gil Sanchez, Imelda, Immaculada, Kipit, La Union, Lapatan, Lawagan, Lawigan, Lopoc (Pob.), Malintuboan, Patawag, San Isidro, Ubay
	SALUG	Bacong, Balakan, Binoni, Calucap, Canawan, Caracol, Danao, Dinoan, Dipolod, Fatima (Pogan), Ipilan, Liguac, Lipakan, Pacuhan, Poblacion (Salug), Poblacion East, Pukay, Santo Nino, Tambalang, Tapalan
ZAMBOANGA DEL NORTE	SIBUCO	Anongan, Basak, Bongalao, Cawit-cawit, Culaguan, Cusipan, Dinulan, Kamarangan, Lakiki, Lambagoan, Limpapa, Lintangan, Litawan, Lunday, Malayal, Mantivo, Nala (Pob.), Pangian, Paniran, Pasilnahut, Poblacion, Puliran, Santo Nino (Culabog), Tangarak
	SIOCON	Balagunan, Andres Micubo Jr. (Balili), Bucana, Bulacan, Dionisio Riconalla, Candiz, Jose P. Brillantes, Sr. (Old Lituban), Datu Sailila, Latabon, Malambuhangin, Malipot, Manaol, Mateo, Francisco, Matiag, New Lituban, Pangian, Pisawak, Poblacion, S. Cabral, Santa Maria, Suhaile Arabi, Tabayo, Tagaytay, Tibangao
	SIRAWAI	Balatakan, Balonkan, Balubuan, Bitugan, Bongon, Catuyan, Culasian, Danganon, Dona Cecilia, Guban, Lagundi, Libucon, Minanga, Motong, Napulan, Panabutan, Piacan, Pina, Pisa Itom, Pugos, Pula Bato, Pulang Lupa, Saint Mary (Pob.), San Nicolas (Pob.), San Roque (Pob.), San Vicente (Pob.), Sipakit, Sipawa, Talabiga, Tapanayan
	ALICIA	Alegria, Bagong Buhay, Bella, Calades, Concepcion, Gulayon, Ilisan, Kapatagan, Kauswagan, Kawayan, La Paz, Lambuyogan, Litayon, Lutiman, Milagrosa (Baluno), Pandan-pandan, Payongan, Poblacion, Santa Maria, Santo Nino, Talaptap, Timbang-timbang
	BUUG	Agutayan, Bagong Borbon, Basalem, Bawang, Bliss, Bulaan, Compostela, Danlugan, Datu Panas, Del Monte, Guintuloan, Guitom, Guminta, Labrador, Lantawan, Mabuhay, Maganay, Manlin, Muyo, Pling, Poblacion, Pulog, San Jose, Talairan, Talamimi, Villacastor (Galit)
	DIPLAHAN	Balangao, Butong, Ditay, Gaulan, Goling, Guinoman, Kauswagan, Lindang, Lobing, Luop, Manangon, Mejo, Natan, Paradise,l Pilar, Poblacion (Diplahan), Sampoli A, Sampoli B, Santa Cruz, Songcuya, Tinongtongan, Tuno
	IMELDA	Balugo, Balungisan, Baluyan, Cana-an, Dumpoc, Gandiangan, Israel (Balian Israel), La Victoria, Little Baguio, Lower Baluran, Lumbog, Lumpanac, Mali Little Baguio, Poblacion (Santa Fe), Pulawan (Mt. View), San Jose, Santa Barbara, Upper Baluran
ZAMBOANGA SIBUGAY	IPIL	Bulu-an, Domandan, Don Andres, Dona Josefa, Guituan, Ipil Heights, Labi, Logan, Lower Ipil Heights, Lower Taway, Lumbia, Maasin, Magdaup, Makilas, Pangi, Poblacion, Sanito, Suclema,, Taway, Timalang, Tomitom, Upper Pangi
	KABASALAN	Buayan, Cainglet, Calapan, Calubihan, Concepcion (Balungis), Diampak. Dipala, Gacbusan, Goodyear, Lacnapan, Little Baguio, Lumbayao, Nazareth, Palinta, Penaranda, Poblacion, Riverside, Sanghanan, Sayao, Shiolan, Simbol, Sininan, Tamin, Tampilisan, Tigbangagan, Timuay Danda (Mangahas)
	MABUHAY	Abunda, Bagong Silang, Bangkaw-bangkaw, Caliran, Catipan, Kauswagan, Ligaya, Pamansaan, Pinalim (San Roque), Poblacion, Punawan, Santo Nino (Caliran), Sawa, Sioton, Taguisian, Tandu-Comot (Katipunan)
	MALANGAS	Bacao, Basak-bawang, Bontong, Camanga, Candiis, Catituan, Dansulao, Del Pilar, Guilawa, La Dicha, Malungon, Mulom, Overland, Payag, Poblacion, Rebocon, San Vicente, Tackling
	NAGA	Aguinaldo, Baga, Cabong, Crossing Sta. Clara, Guintoloan, Kaliantana, La Paz, Lower Sulitan, Marsolo, San Isidro, Sandayong, Santa Clara, Sulo, Tambanan, Taytay Manubo, Tilubog, Tipan, Upper Sulitan
	OLUTANGA	Bateria, Calais (Kalines), Esperanza, Fama, Gandaan, Kahayagan, Looc Sapi, Noque, Pulo Laum, San Isidro, Santa Maria, San Jose, Tambanan, Villacorte, Villagonzalo

Table H 6.1-8 (b) List of Barangays without Madrasah Facilities

MUNICIPALITY	BARANGAY
	Balian, Balungisan, Binangonan, Bulacan, Bulawan, Calape, Dalama, Fatima (Silal),
PAYAO	Guintolan, Guiwan, Katipunan, Kima, Kulasian, Kulisap, La Fortuna, Mayabo (Santa Maria), Minundas (Santo. Nino), Mountain View (Puluan), Nanan, San Isidro, San Roque, San Vicente (Binangonan), Sumilong, Talaptap, Upper Sumilong
ROSELLER T. LIM	Ali Alsree, Balansag, Calula, Casacon, Don Perfecto, Gango, Katipunan, Kulambugan, Mabini, Magsaysay, Malubal, New Antique, New Sagay, Palmera, Remedios, San Antonio, San Fernandino, San Jose, Santo Rosario, Siawang, Surabay, Taruc, Tilasan, Tupilac
SIAY	Bagong Silang, Balagon, Balingasan, Balucanan, Bataan, Batu, Buyogan, Camanga, Coloran, Kimos (Kima), Labasan, Lagting, Laih, Logpond, Magsaysay, Mahayahay, Maligaya, Maniha, Minsulao, Mirangan, Monching, Paruk, Poblacion, Princesa Sumama, Salinding, San Isidro, Sibuguey, Siloh, Villagracia
TALUSAN	Aurora, Baganipay, Bolingan, Bualan, Cawilan, Florida, Kasigpitan, Laparay, Mahayahay, Moalboal, Poblacion (Talusan), Sagay, Samonte
TITAY	Achasol, Azusano, Bangco, Camanga, Culasian, Dalangin, Dalisay, Gomotoc, Imelda (Upper Camanga), Kipit, Kitabog, La Libertad, Longilog, Mabini, Malagandis, Mate, Moalboal, Namnama, New Canaan, Palomoc, Poblacion (Titay), Pulidan, San Antonio, San Isidro, Santa Fe, Supit, Tugop
TUNGAWAN	Malungon, San Vicente, San Isidro, Baluran, Batungan, Cayamcam, Gaycon, Langon, Little Margos, Loboc. Looc-labuan, Lower Tungawan, San Pedro, Sisay, Timbabauan, Upper Tungawan
AURORA	Acad, Alang-alang, Alegria, Anonang, Bagong Mandaue, Bagong Maslog, Bagong Oslob, Bagong Pitogo, Baki, Balide, Balintawak, Bayabas, Bemposa, Cabilinan, Campo Uno, Ceboneg, Commonwealth, Gubaan, Inasagan, Inroad, Kahayagan East (Katipunan), Kahayagan West, Kauswagan, La Paz (Tinibtiban), La Victoria, Lantungan, Libertad, Lubid, Maguikay, Mahayahay, Monte Alegre, Montela, Napo, Panaghiusa, Poblacion, Resthouse, Romarate, San Jose, San Juan, Sapa Loboc, Tagulalo, Waterfall
DIMATALING	Baha, Balanagan, Baluno, Binuay, Buburay, Grap, Josefina, Kagawasan, Lalab, Libertad, Magahis, Mercedes, San Roque, Sugbay Uno, Sumbato, Sumpot, Tinggabulong, Tiniguangan, Upper Ludiong
DINAS	Bacawan, Beray, Don Jose, Dongos, Guinicolalay, Ignacio Garrata (New Mirapao), Kinacap, Legarda 1, Legarda 2, Legarda 3, Lower Dimaya, Lucoban, Ludiong, Nangka, Nian, Old, Mirapao, Pisa-an, Poblacion, Sagacad, San Isidro, Songayan, Sumpotan, Upper Dimaya, Upper Sibul, West Migpulao
LABANGAN	Binayan, Bokong, Cogonan, Dalapang, Dimasangca, Dipaya, Langapod, Lantian, Lower Pulacan, New Labangan, Noboran, San Isidro, Santa Cruz, Tapodoc, Tawagan Norte, Upper Campo Islam (Pob.)
LAPUYAN	Bulawan, Carpoc, Danganan, Dansal, Dumara, Linokmadalum, Luanan, Lubusan, Mahalingeb, Mandeg, Maralag, Molum, Pantad, Poblacion, Salambuyan. San Jose, Sayog, Tabon, Talabab, Tiguha, Tininghalang, Tipasan, Tugaya
MARGOSATUBIG	Balintawak, Bularong, Digon, Guinimanan, Josefina, Kalian, Kolot, Limabatong, Limamawan, Lumbog, Magahis, Sagua, Talanusa, Tiguian, Tulapoc
SAN PABLO	Bag-ong Misamis, Bubual, Buton, Culasian, Daplayan, Kalilangan, Kapamanok, Kondum, Lumbayao, Mabuhay, Marcos Village, Miasin, Molansong, Pantad, Pao, Payag, Pongapong, Sacbulan, Sagasan, San Juan, Senior, Songgoy, Tandubuay, Taniapan, Tubo-pait, Villakapa
TUKURAN	Alindahaw, Baclay, Balimbingan, Buenasuerte, Camanga, Curvada, Laperian, Libertad, Lower Bayao, Luy-a, Manilan, Manlayag, Militar, Navalan, Sambulawan, San Antonio, San Carlos (Pob.), Santo Nino (Pob.), Santo Rosario, Sugod, Tabuan, Tagulo, Tinotungan, Upper Bayao
BACOLOD	Alegria, Esperanza, Babalaya, Babalayan Townsite, Binuni, Demologan, Dimarao, Kahayag, Mati, Minaulon, Pagayawan, Poblacion Bacolod, Punod (Maliwanag), Rupagan
BALOI	Abaga, Landa (Gadongan), Sangcad (Cormatan )
	Libertad, Bara-ason, Kawit Occidental, Kawit Oriental, Tacub, Tingintingin, Tugar
MAGSAYSAY	Napo, Poblacion, Busque, Magoong, Purakan, Robocon, Samburon  Babasalon, Daan Campo, Durianon, Ilihan, Lamigadato, Lemoncret, Lower Caningag (Perimbangan), Lubo, Malabaogan, Mapantao, Olango, Pangao, Somiorang, Talambo, Tambacon, Tipaan, Tombador, Upper Caningag (Taguitingan)
	ROSELLER T. LIM  SIAY  TALUSAN  TITAY  TUNGAWAN  AURORA  DIMATALING  DINAS  LABANGAN  LAPUYAN  MARGOSATUBIG  SAN PABLO  TUKURAN  BACOLOD  BALOI  KAUSWAGAN LINAMON

Table H 6.1-8 (c) List of Barangays without Madrasah Facilities

PROVINCE	MUNICIPALITY	BARANGAY
	MATUNGAO	Santa Cruz, Bubong Radapan, Pasayanon, Puntod, Somiorang
	MUNAI	Bacayawan, Balabacun, Kadayonan, Lindongan, Lininding, Lumba-Bayabao, Madaya, North Cadulawan, Pantao, Pantao-A-Munai, Pantaon, Pindolonan, Punong, Ramain,. Sandigamunai, Tagoranao, Taporog
	PANTAO RAGAT	Bobonga Radapan, Cabasagan, Culubun, Dilimbayan, Dimayon, Matampay, Pansor, Pantao Marug, Tangcal, Tongcopan
	PANTAR	Kalilangan, Poblacion, Bangcal, Bowi, Bubong Madaya, Cabasaran, Lumba-Punod, Pitubo, Punod, awanan
LANAO DEL	POONA PIAGAPO	Alowin, Bubong-Dinaig, Cabasaran, Cadayonan, Caromatan, Daramba, Kablangan, Linindingan, Lumbatan, Madamba, Madaya, Pantao Raya, Pantaon, Pened
NORTE	SAPAD	Katipunan, Buriasan (Pob.), Gamal, Inudaran II, Mabugnao, Maito Salug, Mala Salug, Mapurog, Pancilan, Panoloon, Pili, Sapad
	SULTAN NAGA DIMAPORO	Bangco, Kauswagan, Lantawan, Mabuhay, Mahayahay, Sugod, Tagulo, Bangaan, Bansarvil II, Cabongbongan, Calibao, Calipapa, Calube, Campo Islam, Capocao, Dabliston, Dangulaan, Ditago, Kirapan, Koreo, Maguindanao, Mamagum, Mina, Pandanan, Payong, Pikalawag, Pikinit, Piraka, Ramain, Rebucon, Sigayan, Topocon (Capocgo)
	TAGOLOAN	Dalamas, Darimbang, Dimayon, Kiazar (Pob.), Malimbato
	TANGCAL	Big Meladoc, Bubong, Linao, Lingco-an, Papan, Pelingkingan, Poona Kapatagan, Punod, Small Meladoc, Somiorang
COMPOSTEL A VALLEY	PANTUKAN	Araibo, Bongabong, Kingking (Pob.), Las Arenas, Magnaga, Napnapan, P. Fuentes, Tagdangua, Tag-Ugpo, Tibagon
DAVAO ORIENTAL	TARRAGONA	Dadong, Jovellar, Limot, Lucatan, Tubaon
	ALAMADA	Bao, Camansi, Guiling, Lower Dado, Macabasa, Malitubog, Mapurok, Mirasol, Pacao, Paruayan, Raradangan
	ALEOSAN	Santa Cruz, Cawilihan, Katalicanan, New Leon, Palacat, Pentil, San Mateo
	ARAKAN	Katipunan, Libertad, Santo Nino, Allab, Anapolon, Badiangon, Binoongan, Dallag, Datu Ladayon, Datu Matangkil, Gambodes, Ganatan, Greenfield, Kabalantian, Kinawayan, Kulaman Valley, Lanao Kuran, Makalangot, Malibatuan, Maria Caridad, Meocan, Naje, Napalico, Salasang, San Miguel, Sumalili, Tumanding
	BANISILAN	Malinao, Paradise, Banisilan Poblacion, Capayangan, Carugmanan, Gastay, Kalawaig, Kiaring, Miguel Macasarte, Pinamulaan, Poblacion II, Puting-bato, Thailand, Tumbao-Camalig, Wadya
	CARMEN	Poblacion, Kilala, Bentangan, Kibenes, Kibugtongan, Kimadzil, Lanoon, Macabenban, Ranzo
	KABACAN	Bangilan, Nanga-an, Paatan Upper, Pisan, Simbuhay
COTABATO (NORTH	LIBUNGAN	Abaga, Baguer, Cabpangi, Batiocan, Cabaruyan, Nica-an, Demapaco, Grebona, Kiloyao, Kitubod, Malengen, Montay, Poblacion, Palao, Sinapangan, Sinawingan, Ulamian
СОТАВАТО)	M'LANG	Bagontapay, Bialong, Buayan, Calunasan, Dalipe, Inas, Katipunan, La Fortuna, La Suerte, Langkong, Liboo, Lika, Luz Village, Malayan, New Antique, New Barbaza, New Kalibo, New Consolacion, New Esperanza, New Janiuay, New Lawa-an, New Rizalm, Nueva Vida, Pag-asa, Poblacion, Pulang-lupa, Sangat Tawantawan, Tibao, Ugpay, Palma-Perez. Poblacion B
	MAKILALA	Concepcion, Libertad, Batasan, Buena Vida, Bulakanon, Santo Nino, Indangan, Bato, Biangan, Jose Rizal, Kisante, Cabilao, Dagupan, Garsika, Guangan, Luayon, Malabuan, Katipunan II, Kawayanon, Malasila, Leboce, Malungon, Luna Norte, Luna Sur, New Israel, Old Bulatukan, New Baguio, New Bulatukan, New Cebu, Poblacion, San Vicente, Rodero, Saguing, Santa Felomina, Sinkatulan, Taluntalunan, Villaflores
	MATALAM	Santa Maria, Kabulacan, Bangbang, Bato, Kibia, Estado, Kibudoc, Kilada, Lampayan, Linao, Marbel, Latagan, Lower Malamote, Manupal, Minamaing, New Abra, Poblacion, New Bugasong, New Pandan, Pinamaton, Salvacion, Sarayan, Taguranao, Tamped (Tampad)

Table H 6.1-8 (d) List of Barangays without Madrasah Facilities

PROVINCE	MUNICIPALITY	BARANGAY
TROVINCE	MONICHALITI	Anonang, San Isidro, San Pedro, Santa Cruz, Agriculture, Arizona, Bagumba, Baliki,
COTABATO (NORTH COTABATO)	MIDSAYAP	Barangay Poblacion 1, Barangay Poblacion 2, Barangay Poblacion 3, Barangay Poblacion 4, Barangay Poblacion 5, Barangay Poblacion 6, Barangay Poblacion 7, Barangay Poblacion 8, Bitoka, Bual Norte, Bual Sur, Bulanan Upper, Central Bulanan, Central Glad, Central Katingawan, Ilbocean, Kadigasan, Kadingilan, Kimagango, Kiwanan, Lagumbingan. Lower Katingawan, Malamote, Milaya, Mudseng, Sadaan, Salunayan, Upper Glad I, Upper Glad II, Villarica
	PIGKAWAYAN	Anick (Upper Balogo), Buricain, Capayuran, Central Panatan, Buluan, Datu Binasing, Malagakit, Maluao, Midpapan I, Midpapan II, Mulok, New Culasi, New Igbaras, New Panay, North Manuangan, Matilac, Poblacion I, Payong-payong, Poblacion III, Renibon, Simsiman, Tigbawan, Tubon, Upper Baguer (Baguer), Upper Pangangkalan, Balogo, Kadingilan, Cabpangi, South Manuangan
	PIKIT	Bagoaingud (Bagoinged), Balungis, Barungis, Calawag, Damalasak, Katilacan, Rajah Muda, Takipan
	GLAN	Baliton, San Jose, Big Margus, Batotuling, Batulaki, Pangyan, Cablalan, Calpidong, Congan, Cross, Datalbukay, E. Alegado, Gumasa, Kaltuad, Lago, Laguimit, Mudan, New Aklan, Rio Del Pilar, Small Margus, Taluya, Tango, Tapon
	KIAMBA	Badtasan, Gasi, Kayupo, Poblacion, Lebe, Lomuyon, Luma, Maligang, Salakit, Suli, Tablao, Tamadang
SARANGANI	MAASIM	Amsipit, Bales, Colon, Kabatiol, Kablacan, Kanalo, Lumasal, Malbang, Nomoh, Poblacion (Maasim), Seven Hills
	MAITUM	Bati-an, Kalaneg, Kiambing, Kiayap, Mabay, Malalag (Pob.), New La Union, Old Poblacion (Maitum). Pangi (Linao), Sison (Edenton), Ticulab, Upo (Lanao), Wali (Kambuhan). Zion
	MALAPATAN	Daan Suyan, Kihan, Kinam, Libi, Patag, Upper Suyan
SOUTH	POLOMOLOK	Glamang, Crossing Palkan, Koronadal Proper, Kinilis, Klinan 6, Lam-Caliaf, Palkan, Lumakil, Maligo, Pagalungan, Poblacion, Polo, Silway 7, Silway 8, Sulit, Upper Klinan
СОТАВАТО	TUPI	Acmonan,, Cebuano, Bololmala, Kablon, Crossing Rubber, Miasong, Kalkam, Linan, Lunen, Poblacion, Simbo
	BAGUMBAYAN	Bai Sarifinang, Biwang, Busok, Kapaya, Masiag, Daluga, Kanulay, Kinayao, Santo Nino, Monteverde, Sison, South Sepaka, Sumilil, Titulok, Tuka
	COLUMBIO	Libertad, Maligaya, Bantangan (Lasak)m, Poblacion, Eday, Lasak, Lomoyon, Makat (Sumali Pas), Natividad, Sinapulan, Sucob, Telafas
	ESPERANZA	Magsaysay, Ala, New Panay, Poblacion, Guiamalia, Laguinding, Margues, Salabaca, Numo, Paitan, Pamantingan, Sagasa, Salumping, Villamor
	ISULAN (Capital)	Bambad, Impao, Kalawag I (Pob.), Kalawag III (Pob.), Kenram, Kolambog, Kudanding, Mapantig, New Pangasinan, Sampao, Tayugo
	KALAMANSIG	Santa Maria, Datu Ito Andong, Datu Wasay, Dumangas Nuevo, Hinalaan, Limulan, Obial, Paril, Sabanal
CHI TAN	LAMBAYONG (MARIANO MARCOS)	Kapingkong, Caridad (Cuyapon), Didtaras, Kabulakan, Madanding, Lagao,
SULTAN KUDARAT	(MARIANO MARCOS)  LEBAK	Maligaya, Mamali,, Matiompong, Midtapok, Pidtiguian, Tumiao (Tinaga), Udtong Basak, Keytodac, Aurelio F. Freires (Poblacion II), Barurao, Barurao II, Bolebok, Bululawan, Capilan, Christiannuevo, New Calinog, Poblacion, Nuling, Pansud, Pasandalan, Purikay, Ragandang, Taguisa, Tibpuan, Villamonte
	LUTAYAN	Blingkong, Manili, Palavilla
	PALIMBANG	San Roque, Mina, Akol, Balwan (Bulan), Bambanen, Baranayan, Barongis, Batangbaglas, Domolol, Kalibuhan, Kidayan, Kiponget, Kisek, Libua, Ligao, Maguid, Malatuneng (Malatunol). Poblacion, Namat Masla, Wasag
	PRESIDENT QUIRINO	San Jose, Bagumbayan, Bannawag, C. Mangilala, Kalanawe I, Kalanawe II, Romualdez, San Pedro (Tuato), Sinakulay, Suben, Tual (Liguasan)
	SEN. NINOY AQUINO	Banali, Basag, Buenaflores, Bugso, Buklod, Gapok, Kadi, Kiadsam, Kuden, Kulaman, Lagubang, Langgal, Limuhay, Malegdeg, Midtungok, Nati, Sewod, Tacupis, Tinalon, Kapatagan
BASILAN	AKBAR	Caddayan, Manguso, Upper Bato-bato, Upper Sinangkapan
	AL-BARKA	Apil-apil, Bucalao
	HADJI MOHAMMAD AJUL	Basakan, Langil
	HADJI MUHTAMAD	Baluk-Baluk, Dasalan, Luuk-Bungsod, Mananggal, Palahangan, Panducan, Sangbay Big, Sangbay Small

Table H 6.1-8 (e) List of Barangays without Madrasah Facilities

PROVINCE	MUNICIPALITY	BARANGAY
TROVINCE	WIUNICIFALITY	
BASILAN	LAMITAN	Maligaya, Colonia, Arco, Balagtasan, Baungos, Boheibu, Bohesapa, Boheyakan, Boheyawas, Buahan, Bulingan, Cabobo, Calugusan, Maganda, Kulay Bato, Limo-ok, Parangbasak, Luksumbang, Lumuton, Malakas, Malo-ong San Jose, Matatag, Sengal, Simbangon, Tumakid
	LANTAWAN	Bagbagon, Baluk-baluk, Bulanza, Calayan, Calugusan, Canibungan, Dasalan, Landugan, Lantawan Proper (Pob.), Lawi-lawi, Lower Banas, Lower Manggas, Luukbongsod, Luuk-Maluha, Mananggal, Matarling, Matikang, Palahangan, Pamucalin, Panducan, Paniongan, Parian-Baunoh, Sangbay Big, Sangbay Small, Suba-an (Pangasahan), Switch Yakal, Tairan, Upper Banas
	MALUSO	Abong-Abong, Batungal, Calang Canas, Guanan North (Zone I), Guanan South (Zone II), Limbubong, Mahayahay Lower (Zone I), Muslim Area, Port Holland Zone II Pob. (Shipyard, Main), Port Holland Zone IV (Lower), Tamuk, Tubigan, Upper Garlayan
	SUMISIP	Benembengan Lower, Bohe-languyan, Kaum-Air, Limbocandis, Mahatalang, Manaul, Mangal (Pob.), Sahaya Bohe Bato, Sumisip Central, Tikus, Tongsengal
	TABUAN-LASA	Babag (Babuan Island), Balanting, Boloh-Boloh, Bukut-Umus, Kaumpurnah, Lanawan, Saluping, Suligan (Babuan Island), Tambulig Buton, Tong-Umus
	TIPO-TIPO	Bangcuang, Bohe-Tambak
	TUBURAN	Calut, Duga-a, Mahawid
	Ampatuan	Dicalongan (Pob.), Kamasi, Kauran, Malatimon, Matagabong, Saniag, Tomicor, Tubak
	Buluan	Talitay, Digal, Popol
	Datu Paglas	Elbebe, Alef, Damawato, Madidis, Makat, Mao, Puya
	Datu Piang	Buayan, Montay, Andavit, Damabalas, Liong, Pandi, Reina Regente
	Mamasapano	Daladap, Liab, Pagatin
	Pagagawan	Nabundas, Balatungkayo (Batungkayo), Limbalud, Maridagao, Pagagawan, Talapas, Tunggol
	Paglat	Kakal, Upper Idtig
	Guindulungan	Ahan, Bagan, Datalpandan, Kateman, Lambayao
	Datu Saudi	Sambulawan, Bakat, Gawang, Inaladan, Kabengi, Kitango, Penditen, Salbu
	Ampatuan	
	Datu unsay	Bulayan, Maitumaig, Malangog, Tuntungan
I	Datu Abdullah	Guinibon, Maganoy, Mao, Tukanolocong (Tukanologong)
I	Sangki Datu Anggal	Tugal Brar Tulinan
MAGUINDANAO	Datu Anggal Midtimbang	Tugal, Brar, Tulunan
	Mangudadatu	Daladagan, Tenok, Tinambulan
	Pandag	Kabuling, Kayupo (Cuyapo), Lepak, Lower Dilag, Pandag, Upper Dilag
	Rajah Buayan	Sampao, Bakat Malibpolok, Mileb, Panadtaban
	Pagalungan	Inug-ug, Bagoenged, Galakit, Kudal
	Gen. S. K. Pendatun	Badak, Bulod, Pidtiguian, Kaladturan, Kulasi, Lasangan, Lower Idtig, Lumabao, Makainis, Midconding, Midpandacan, Panosolen, Quipolot, Sadangen, Tonggol,
I		Upper Lasangan
I	Shariff Aguak	Bialong, Malingao, Dale-Bong, Dilembong, Kubentong, Kuloy, Labu-labu I, Labu-
	(Maganoy) South Upi	labu II, Sayap, Taib, Talibadok, Tuayan I Pilar, San Jose, Biarong, Itaw, Kigan, Kuya, Lamud, Looy, Pandan, Romangaob
	Sultan Sa Barongis	(Pob.) Tugal, Darampua, Paldong, Tukanakuden
	(Lambayong)	
	Talayan	Binangga North, Binangga South, Boboguiron, Fukol, Kedati, Lanting, Marader, Talayan, Tamar, Timbaluan
	Talitay	Bintan (Bentan), Gadungan, Kilalan, Manggay, Pageda
	Barira	Panggao, Lamin, Liong
	Buldon	Ampuan, Dinganen, Karim
SHARIFF	Datu Blah T.	Tambak, Lapaken, Sinipak
KABUNSUAN	SINSUAT	A D 11 W 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	Datu Odin Sinsuat	Awang, Badak, Kusiong, Linek, Nekitan, Semba, Sifaren (Sifaran), Taviran,
<u> </u>	(Dinaig)	Tenonggos

Table H 6.1-8 (f) List of Barangays without Madrasah Facilities

PROVINCE	MUNICIPALITY	BARANGAY
1110 (IIIII)		Poblacion, Pened, Buterin Dadtumog (Dadtumeg), Gambar, Lower Taviran,
	Kabuntalan (Tumbao)	Matilak, Payan
	Matanog	Bayanga Norte
	Northern Kabuntalan	Kapimpilan, Paulino Labio
SHARIFF KABUNSUAN	Parang	Bongo Island (Litayen), Campo Islam, Making, Pinantao, Poblacion, Orandang, Tuca-Maror
Miberiserii	Sultan Kudarat (Nuling)	Alamada, Katamlangan (Matampay)
	Sultan Mastura	Tambo
	Upi	Bayabas, Bantek, Blensong, Borongotan, Bugabungan, Darugao, Kabakaba, Kibucay, Kiga, Kinitan (Kinitaan), Nangi, Ranao Pilayan, Renti, Rifao, Sefegefen, Tinungkaan
	BACOLOD-KALAWI (BACOLOD GRANDE)	Sugod, Bubong, Madanding, Poblacion II Bagoaingud, Barua, Buadiawani, Daramoyod, Dipatuan, Gandamato, Liawao, Lumbaca-Ingud Rorowan, Tuka I
	BALABAGAN	Lumbac, Bagoaingud, Banago, Magulalung Oriental, Lorenzo, Lower Itil, Macao, Plasan, Upper Itil
	BALINDONG (WATU)	Cadayonan, Dimarao, Barit, Bolinsong, Borakis, Dilausan, Ingud, Kaluntay, Lati, Limbo, Lumbac Wato, Paigoay, Talub
	BAYANG	Cadayonan, Ilian Linao, Maliwanag, Mapantao, Pantar, Tangcal, Bagoaingud, Bairan (Pob.), Bialaan, Bubong Raya, Cadingilan Oriental Condaraan Pob. (Condaraan Dimadap), Cormatan, Gandamato, Lalapung Central, Lalapung Proper (Pob.), Lalapung Upper, Linuk (Pob.), Liong, Mimbalawag, Pama-an, Pamacotan, Parao, Patong, Poblacion (Bayang), Porotan, Rinabor (Pob.), Samporna (Pob.), Silid, Sumbag (Pob.), Tomarompong, Tomongcal Ligi, Torogan, Tuca (Pob.)
	BINIDAYAN	Basak, Bubong, Lumbac, Pindolonan, Badak, Baguiangun, Dansalan Dacsula, Masolun, Picotaan, Tuca
	BUADIPOSO- BUNTONG	Bubong, Cadayonan, Tangcal, Bacolod, Bangon Proper, Boto Ragondingan, Buadiposo Proper, Buntong Proper, Dirisan, Gata, Kalakala, Katogonan, Lumbatan Manacab, Lunduban (Ragondingan), Minanga (Buntong), Paling, Pualas, Raya Buntong (Buntong East), Sapot
	BUBONG	Bualan, Dibarosan, Dimayon, Pagayawan, Pantar, Palao, Polayagan, Bansayan, Basingan, Carigongan, Dalaon, Diolangan, Masorot, Matampay Dimarao, Poblacion (Bubong), Ramain Bubong, Taboro
LANAO DEL SUR	BUTIG	Cabasaran, Dilimbayan, Bayabao Poblacion, Pindolonan, Butig Proper, Coloyan Tambo, Poktan, Ragayan, Sandab Madaya, Sundig, Timbab, Tiowi
	DITSAAN-RAMAIN	Bayabao, Darimbang, Polo, Baclayan Lilod, Baclayan Raya, Barimbingan, Dado, Buadi Babai, Buadi Oloc, Buayaan Raya, Dilausan, Ditsaan, Gadongan, Lumbatan Ramain, Mandara, Maranao Timber (Dalama), Pagalongan Buadiadingan, Pagalongan Ginaopan, Pagalongan Proper, Ramain Poblacion, Ramain Proper, Sultan Pangadapun, Sundiga Bayabao
	GANASSI	Tabuan, Balintad, Pagalongan, Pamalian, Barorao, Baya, Campong Sabela, Dapaan, Gui, Linuk, Lumbacaingud, Masolun, Panggawalupa, Pantaon A, Sogod Madaya, Taliogon
	KAPAI	Dilimbayan, Pagalongan, Cormatan, Dilabayan, Dimagaling (Dimagalin Proper), Doronan, Gadongan, Kasayanan, Kasayanan West, Kibolos
	KAPATAGAN	Kapatagan, Bongabong, Salaman, Inudaran, Matimos, Upper Igabay
	LUMBA-BAYABAO (MAGUING)	Mapantao, Tongcopan, Baugan, Calilangan, Cormatan Langban, Dialongana, Dilindongan-Cadayonan, Gadongan, Galawan, Kasola, Lalangitun, Lama, Lindongan Dialongana, Lobo Basara, Lumbac Bacayawan, Macaguiling, Maribo (Pob.), Minaring Diladigan, Posudaragat, Rumayas, Sabala Bantayao, Sarigidan Madiar, Sunggod, Tamlang, Turogan
	LUMBACA-UNAYAN	Bangon (Dilausan), Beta Calalon, Dimapaok, Lumbac Dilausan
	LUMBATAN	Lumbac, Madaya, Pantar, Basayungun, Buad, Bubong Macadar, Budi, Dalipuga, Lunay, Penaring
	LUMBAYANAGUE	Cadayonan, Dilimbayan, Pantaon, Pindolonan, Bagoaingud, Cabuntungan, Cadingilan, Cadingilan A, Casalayan, Dala (Dalama), Diromoyod, Mapantao-Balangas, Nanagun, Pitatanglan, Poctan, Singcara

Table H 6.1-8 (g) List of Barangays without Madrasah Facilities

PROVINCE	MUNICIPALITY	BARANGAY
	MADALUM	Bacayawan, Basak, Bubong, Lumbac, Bato, Bagoaingud, Poblacion, Delausan, Diampaca, Gadongan, Gurain, Kormatan, Liangan I, Lilitun, Padian Torogan I, Punud, Racotan, Sogod Kaloy, Udangun
	MADAMBA	Balintad, Liangan, Pantar, Tambo, Balagunun, Biabe, Bubong Uyaan, Lakitan, Lumbaca Ingud, Pagayonan, Pangadapan, Tubaran, Tulay, Uyaan Proper (Pob.)
	MAGUING	Bubong, Dilimbayan, Lumbac, Pagalongan, Madanding, Agagan, Balagunun, Balawag, Bato-bato, Bubong Bayabao, Camalig, Cambong, Kianodan, Lilod Borocot, Lilod Maguing, Maguing Proper, Malungun, Malungun Pagalongan, Panayangan, Pilimoknan
	MALABANG	Bacayawan, Banday, Matampay, Badak Lumao, Betayan, Boniga, Cabasaran (South), Calibagat, Corahab, China Town (Pob.), Diamaro, Jose Abad Santos, Mable, Masao, Manggahan, Matalin, Pasir, Rebocun, Sumbagarogong, Tambara
	MARANTAO	Bacayawan, Poblacion, Ilian, Matampay, Palao, Batal-Punud, Bubong Madanding (Bubong), Camalig (Pob.), Camalig Bubong, Cawayan, Cawayan Bacolod, Inudaran Campong, Inudaran Loway, Lumbac Kialdan, Mantapoli, Maul, Nataron, Pagalongan Bacayawan, Pataimas, Punud Proper, Tuca Kialdan
	MARAWI CITY	Cabasaran, Beyaba-Damag, Datu Sa Dansalan, Calocan East, Datu Naga, Fort, Lumbac Marinaut, Lumbaca Madaya (Pob.), Moncado Colony, Navarro (Datu Saber), Pantaon (Langcaf), Papandayan Caniogan, Rapasun MSU, Raya Madaya I, Sabala Manao Proper, Saduc Proper, Sangcay Dansalan
	MAROGONG	Bagumbayan, Bitayanm, Bonga, Paigoay Coda, Pasayanan, Romagondong
	MASIU	Pantao, Abdullah Buisan, Alumpang Paino Mimbalay, Dalog Balut, Gindolongan Alabat, Lakadun, Lanco Dimapatoy, Macadaag Talaguian, Macompara Apa Mimbalay, Mai Ditimbang Balindong, Matao Araza, Mocamad Tangul, Sambowang Atawa, Sawir, Tomambiling Lumbaca Ingud, Towanao Arangga
LANAO DEL SUR	MULONDO	Dalama, Dansalan, Bubong, Cabasaran, Ilian, Madaya, Pindolonan, Bagoaingud, Bangon, Buadi-Abala, Buadi-Bayawa, Bubonga Guilopa, Cairatan, Cormatan, Kitambugun, Lama (Bagoaingud), Lilod, Lilod Raybalai, Lumbac (Lumbac Bubong), Lumbaca Ingud, Salipongan
	PAGAYAWAN(TATA RIKAN)	Bangon (Pob.), Guiarong, Poblacion (Lumbac), Rangiran, Rubokun
	PIAGAPO	Pantaon, Bansayan, Tapocan, Mamaanun
	POONABAYABAO(G ATA)	Cadayonan, Dimayon, Pantao, Taporog, Ataragadong, Bubong-Dimunda, Bugaran, Calilangan Dicala, Calupaan, Dilausan, Dongcoan, Poblacion (Gata Proper), Punud
	PUALAS	Bualan, Masao, Badak, Bolinsong, Diamla, Notong, Romagondong, Tamlang, Tomarompong
	SAGUIARAN	Batangan, Linao, Maliwanag, Natangcopan, Pantao Raya, Pantaon, Pawak, Pindolonan, Alinun, Bagoaingud, Cadayon, Cadingilan, Limogao, Lumbayanague, Pagalamatan, Salocad, Sungcod
	SULTAN DUMALONDONG	Tagoranao
	SULTANGUMANDER	Mapantao, Anas, Biasong, Liangan (Pob.), Mimbalawag, Ramitan, Torogan, Tual
	TAGOLOANII	Kalilangan, Malinao, Cadayonan, Sigayan, Malingon, Bagoaingud, Bantalan, Bayog, Dagonalan, Dimalama, Gayakay, Inodaran, Kianibong, Kingan, Kitaon, Maimbaguiang, Mama-an Pagalongan, Marawi, Tagoloan Poblacion
	TAMPARAN	Minanga, Cabasaran, Lindongan, Lumbac, Maliwanag, Pagayawan, Mariatao Datu, Bangon, Bocalan, Dasomalong, Lalabuan, Lilod Tamparan, Lilod Tubok, Linuk, Linuk Oriental, Lumbaca Ingud, Lumbaca Lilod, Lumbacaingud South, Maidan Linuk, Mala-abangon, Poblacion II, Miondas, Occidental Linuk, Pagalamatan Linuk, Picarabawan, Pimbago-Pagalongan, Pindolonan Mariatao Sarip, Poblacion IV, Raya Buadi Barao, Raya Niondas, Raya Tamparan
	TUBARAN	Beta, Campo. Datumanong, Gadongan, Gaput, Metadicop, Mindamudag, Wago
	TUGAYA	Lumbac, Mapantao, Cayagan, Gurain, Pindolonan II, Putad, Sugod Mawatan

# **6.1.3** Daycare Center Facilities

Table H 6.1-9 (a) List of Barangays without Day Care

7AMDOANCA DEL NODEE	
ZAMBOANGA DEL NORTE	DADANCAV
MUNICIPALITY	BARANGAY
BALIGUIAN	Alegria, Diangas, Diculom, Guimotan, Kauswagan, Lumay, Mamawan, Nonoyan
LABASON	Balas, Dansalan, Immaculada, Lopoc (Pob.)
SALUG	Binoni, Ipilan
	Anongan, Basak, Cabbunan, Cawit-cawit, Culaguan, Cusipan, Jatian, Kamarangan,
SIBUCO	Lambagoan, Litawan, Mantivo, Nala (Pob.), Panganuran, Pangian, Paniran, Pasilnahut,
	Puliran, Santo Nino (Culabog)
SIOCON	Bucana, Dionisio Riconalla, Malambuhangin, Matiag, Suhaile Arabi
SIRAWAI	Balatakan, Balonkan, Balubuan, Catuyan, Culasian, Danganon, Libucon, Lubok, Macuyon, Minanga, Motong, Napulan, Panabutan, Pina, Pisa Itom, Pisa Puti, Pugos, Pula Bato, Pulang, Lupa, San Nicolas (Pob.), San Vicente (Pob.), Sipakit, Sipawa, Sirawai Proper (Pob.), Talabiga, Tapanayan
ZAMBOANGA SIBUGAY	, , , , , , , , , , , , , , , , , , ,
ALICIA	Alegria, Calades, Ilisan, Kauswagan, Kawayan, La Paz, Litayon, Pandan-panda, Talaptap, Tandiong Muslim
BUUG	Datu Panas, Guitom, Pulog, Talairan
DIPLAHAN	Lobing, Tinongtongan
IMELDA	Gandiangan, Little Baguio
IPIL	Bulu-an, Domandan, Magdaup, Taway, Timalang, Upper Pangi
KABASALAN	Banker, Buayan, Dipala, Sanghanan, Shiolan, Tampilisan
MABUHAY	Bangkaw-bangkaw, Looc-Barlak, Pamansaan, Pinalim (San Roque), Sioton, Taguisian
MALANGAS	Dansulao, Kigay, Lipacan, Sinusayan
NAGA	Tambanan, Tilubog
OLUTANGA	Galas, Noque
	Balungisan, Dalama, Fatima (Silal), Guintolan, Labatan, Minundas (Santo. Nino),
PAYAO	Mountain View (Puluan), San Vicente (Binangonan), Silal, Talaptap
ROSELLER T. LIM	Calula, Casacon, New Sagay, Palmera
SIAY	Balucanan, Batu, Maligaya, Princesa Sumama
TALUSAN	Kasigpitan
	Dalangin Muslim, Gomotoc, Imelda (Upper Camanga), La Libertad, Malagandis, Mate,
TITAY	Moalboal, Poblacion (Titay), San Isidro, Supit
TUNGAWAN	Linguisan
ZAMBOANGA DEL SUR	0
AURORA	Alang-alang, Anonang, Bagong Mandaue, Bagong Maslog, Bagong Oslob, Bagong Pitogo, Balide, Bemposa, Kahayagan West, Lantungan, Libertad, Montela, Napo, San Juan, Sapa Loboc, Waterfall
DIMATALING	Balanagan, Sumbato, Tipangi
DINAS	Guinicolala
LABANGAN	Bagalupa, Balimbingan (West Luya), Binayan, Cogonan, Dalapang, Dimasangca, Dipaya, Lower, Pulacan, Lower Sang-an, New Labangan, Old Labangan, San Isidro, Upper Sang-an
LAPUYAN	Dansal, Dumara, Molum, Pampang, Pantad, Sayog, Tabon, Tugaya
MARGOSATUBIG	Tiguian, Tulapoc
SAN PABLO	Bag-ong Misamis, Kalilangan, Mabuhay, Marcos Village, Sagasan, Senior, Ticala Island
TUKURAN	Alindahaw, Balimbingan, Buenasuerte, Camanga, Curvada, Laperian, Libertad, Lower Bayao, Manilan, Panduma Senior, Santo Rosario
LANAO DEL NORTE	
BACOLOD	Alegria, Babalaya, Babalayan Townsite, Binuni, Demologan, Dimarao, Kahayag, Mati, Minaulon, Pagayawan
BALOI	Nangka, Abaga, Angandog (Bulao), Bangko, Lumbac, Matampay, Sandor (Daduan), Sigayan
KAUSWAGAN	Libertad, Poblacion, Bara-ason, Tacub, Tingintingin
LINAMON	Magoong
MAGSAYSAY	Babasalon, Daan Campo, Durianon, Ilihan, Lamigadato, Lemoncret, Lower Caningag (Perimbangan), Lubo, Lumbac, Malabaogan, Mapantao, Pangao, Pelingkingan, Somiorang, Talambo, Tipaan, Tombador, Upper Caningag (Taguitingan)

Table H 6.1-9 (b) List of Barangays without Day Care

ZAMBOANGA DEL SUR	ETI 0.1-9 (b) List of Barangays without Day Care
MUNICIPALITY	BARANGAY
MOMCHALITI	Bangco, Pangi, Santa Cruz, Batangan, Bubong, Radapan, Matampay, Pasayanon,
MATUNGAO	Poblacion (Matungao), Puntod, Somiorang
	Bacayawan, Dalama, Balabacun, Balintad, Kadayonan, Lindongan, Lininding, Madaya,
MUNAI	North Cadulawan, Pantao, Pantao-A-Munai, Pantaon, Ramain, Sandigamunai, Tagoranao,
	Tamparan (Mandaya), Taporog
	Poblacion East, Aloon, Banday, Bobonga, Pantao Ragat, Bobonga Radapan, Cabasagan,
PANTAO RAGAT	Culubun, Dilimbayan, Dimayon, Lomidong, Madaya, Maliwanag, Matampay,
	Natangcopan, Pansor, Pantao Marug, Poblacion West, Tangcal, Tongcopan
	Kalilangan, Poblacion, Bangcal, Bowi, Bubong, Madaya, Cadayonan, Dibarosan,
PANTAR	Kalanganan East, Lumba-Punod, Pantao-Marug, Pantao-Ranao, Pantar East, Pitubo,
	Poona-Punod, Punod, Sundiga-Punod, Tawanan
	Sulo, Bubong-Dinaig, Cabasaran, Cadayonan, Daramba, Kablangan, Lumbatan, Lupitan,
POONA PIAGAPO	Madamba, Maliwanag, Nunang, Nunungan, Pantao Raya, Pantaon, Piangamangaan,
	Tagoranao, Timbangalan
	Dansalan, Baning, Gamal, Inudaran II, Karkum, Mabugnao, Maito Salug, Mama-anon,
SAPAD	Pancilan, Pili, Sapad
CHI TAN NACA	Kauswagan, Dalama, Mahayahay, Sugod, Tagulo, Calibao, Calube, Campo Islam,
SULTAN NAGA DIMAPORO	Dabliston, Dangulaan, Ditago, Koreo, Pandanan, Payong, Pikalawag, Pikinit, Piraka,
DIMAFORO	Ramain, Rebucon, Sigayan
TAGOLOAN	Dalamas, Darimbang, Dimayon, Kiazar (Pob.), Malimbato
	Bayabao, Berwar, Big Banisilon, Big Meladoc, Bubong, Lamaosa, Linao, Lindongan
TANGCAL	Lingco-an, Papan, Poona Kapatagan, Punod, Small Banisilon, Small Meladoc, Somiorang,
TANGCAL	Tangcal Proper
DAVAO ORIENTAL	I m 1
TARRAGONA	Tubaon
NORTH COTABATO	
ALAMADA	Barangiran, Paruayan, Rangayen
ALEOSAN	Luanan, Dunguan, New Leon
BANISILAN	Pantar
CARMEN	Aroman, Kibenes, Lanoon, Palanggalan, Pebpoloan, Tambad
KABACAN	Buluan, Osias, Paatan Upper, Pedtad, Simbuhay
M'LANG	Calunasan, Dalipe, Gaunan, Katipunan, Liboo, New Consolacion, New Janiuay, New
BWATZIT AT A	Lawa-an, Tawantawan, Ugpay
MAKILALA	Batasan, Dagupan, Katipunan II, Villaflores Kidama, Lower Malamote, Manubuan, Taculen
MATALAM	
MIDSAYAP	Barangay Poblacion 5, Kadigasan, Kapinpilan, Kudarangan, Lomopog, Macasendeg, Nabalawag, Olandang, Rangaban
PIGKAWAYAN	Rabalawag, Olandang, Rangaban Buricain, Buluan, Lower Baguer, Lower, Pangangkalan, Kadingilan, Cabpangi
FIGNAWATAN	Macasendeg, Balabak, Balatican, Balong, Balungis, Bulod, Bulol, Damalasak, Macabual,
PIKIT	Nunguan, Pamalian, Punol, Poblacion, Talitay, Takipan
SARANGGANI	rvanguan, r amanan, r unoi, r obiación, ramay, raxipan
GLAN	Batulaki, Datalbukay
SULTAN KUDARAT	Datataki, Datatukay
COLUMBIO	Elbebe, Lomoyon
ESPERANZA	Ilian, New Panay, Salabaca
KALAMANSIG	Poblacion
LEBAK	Poblacion, Pasandalan, Tibpuan
LUTAYAN	Maindang, Sisiman
	Mina, Badiangon, Bambanen, Batang-baglas, Butril, Kiponget, Ligao, Maguid,
PALIMBANG	Malatuneng (Malatunol), Molon, Napnapon, Wasag
PRESIDENT QUIRINO	Kalanawe I
SEN. NINOY AQUINO	Buklod
OFTH TOTHOL MUUTO	DUNIOU

Table H 6.1-9 (c) List of Barangays without Day Care

BASILAN	
MUNICIPALITY	BARANGAY
AKBAR	Caddayan, Linongan, Lower Bato-bato, Mangalut, Semut, Upper Bato-bato, Upper Sinangkapan
LAMITAN	Balas, Arco, Ba-as, Balagtasan, Balobo, Baungos, Bohebessey, Boheibu, Bohenange, Bohesapa, Boheyakan, Boheyawas, Buahan, Bulanting, Calugusan, Maganda, Danit-Puntocan, Kulay, Bato, Lebbuh, Luksumbang, Lumuton, Malo-ong, Canal, Matatag, Santa Clara, Sabong, Simbangon, Tumakid, Ulame
LANTAWAN	Bagbagon, Baungis, Calayan, Calugusan, Canibungan, Dasalan, Landugan, Lantawan Proper (Pob.), Lawila, Lawi-lawi, Lower Banas, Lower Manggas, Luukbongsod, Luuk-Maluha, Mananggal, Palahangan, Pamucalin, Panducan, Paniongan, Parian-Baunoh, Sangbay Big, Sangbay, Small, Suba-an (Pangasahan), Tairan, Upper Banas
MALUSO	Calang Canas, Fuente Maluso, Guanan North (Zone I), Guanan South (Zone II), Limbubong, Mahayahay Lower (Zone I), Mahayahay Upper (Zone II), Muslim Area, Port Holland Zone II Pob. (Shipyard Main), Tamuk, Upper Garlayan
SUMISIP	Basak, Baiwas, Benembengan Lower, Bohe-languyan, Buli-buli, Kaum-Air, Kaumpamatsakem, Libug, Limbocandis, Lukketon, Mahatalang, Manaul, Marang, Mebak, Sahaya Bohe Bato, Sapah Bulak, Sumisip, Central, Tikus, Tongsengal
AL-BARKA	Apil-apil, Bucalao
TABUAN-LASA	Babag (Babuan Island), Balanting, Boloh-Boloh, Bukut-Umus, Kaumpurnah, Lanawan, Pisak-Pisak, Saluping, Suligan (Babuan Island), Sulloh (Tapiantana), Tambulig Buton, Tong-Umus
TYPO TYPO	Baguindan, Banah, Bangcuang, Bohebaca, Bohelebung, Bohe-Tambak, Lagayas, Limbo-
TIPO-TIPO	Upas, Silangkum, Tipo-tipo Proper (Pob.)
HADJI MOHAMMAD AJUL	Basakan, Langil Dasalan, luuk-bungsod, mananggal, palahangan, panducan, sangbay big, sangbay small
HADJI MUHTAMAD TUBURAN	Katipunan, Bohetambis, Calut, Duga-a, Lahi-lahi, Lower Tablas, Mahawid, Tablas Usew
MAGUIJNDANAO	Ratipunan, Bonciamois, Caiut, Buga-a, Lam-iam, Lower Tabias, Manawid, Tabias Oscw
AMPATUAN	Kapinpilan, Dicalongan (Pob.), Malatimon, Matagabong, Saniag, Tubak
BULUAN	Talitay
DATU PAGLAS	Bulod, Elbebe, Alef, Bonawan, Damawato, Datang, Kalumenga (Kalumanga), Lipao, Madidis, Malala, Manindolo, Napok, Palao sa, Buto, Puya, Salendab, Sepaka
DATU SAUDI AMPATUAN	Elian, Ganta, Gawang, Inaladan, Kabengi, Kitapok, Penditen
DATU UNSAY	Pamalian, Bulayan, Iganagampong, Macalag, Maitumaig, Malangog, Meta, Panangeti, Pikeg, Tuntungan
DATU ABDULLAH SANGKI	Dimampao, Kaya-kaya, Sugadol, Tukanolocong (Tukanologong)
DATU ANGGAL MIDTIMBANG	Adaon, Brar, Midtimbang (Pob.), Tulunan
DATU PIANG	Montay, Alonganan, Ambadao, Andavit, Damabalas, Dasawao, Duaminanga, Liong, Masigay, Pandi, Reina Regente, Tee
MANGUDADATU	Paitan
MAMASAPANO	Bagumbong, Dabenayan, Duguengen, Libutan, Pidsandawan, Pusao, Sapakan
PAGAGAWAN	Bulod, Nabundas, Talitay, Balatungkayo (Batungkayo), Limbalud, Maridagao, Talapas, Tunggol
PANDAG	Lepak, Lower Dilag, Malangit, Upper Dilag
PAGLAT	Campo, Damakling, Tual
PAGALUNGAN RAJAH BUAYAN	Inug-ug, Bagoenged, Dalgan, Kilangan, Kudal, Linandangan Gaunan, Sampao, Baital, Bakat, Dapantis, Malibpolok, Mileb, Panadtaban, Pidsandawan, Tabungao
GUINDULUNGAN	Sampao, Ahan, Bagan, Datalpandan, Kalumamis, Kateman, Lambayao, Muslim, Muti
GEN. S. K. PENDATUN	Bulod, Pidtiguian, Kaladturan, Kulasi, Lao-lao, Lasangan, Lumabao, Makainis, Midconding, Midpandacan, Panosolen, Quipolot, Sadangen, Tonggol, Upper Lasangan
SHARIFF AGUAK (MAGANOY)	Bialong, Malingao, Nabundas, Poblacion I, Poblacion II, Bagong, Dale-Bong, Dilembong, 'Kubentong, Kuloy, Labu-labu, Labu-labu I, Labu-labu II, Sayap, Taib, Talibadok, Tapikan, Tina, Tuayan, Tuayan I
SOUTH UPI	Lamud
SULTAN SA BARONGIS (LAMBAYONG)	Bulod, Tugal, Angkayamat, Kulambog, Paldong, Tukanakuden
TALAYAN	Binangga North, Damablac, Fugotan, Fukol, Katibpuan, Kedati, Lanting, Linamunan, Marader, Tamar, Tambunan I, Timbaluan
TALITAY	Kuden, Bintan (Bentan), Gadungan, Kiladap, Kilalan, Makadayon, Manggay, Pageda

Table H 6.1-9 (d) List of Barangays without Day Care

SHARIFF KABUNSUAN	
MUNICIPALITY	BARANGAY
BARIRA	Korosoyan, Lamin, Liong, Lipa, Rominimbang, Togaig
BULDON	Ampuan, Calaan (Pob.), Kulimpang, Mataya, Minabay, Pantawan, Piers, Rumidas
DATU BLAH T. SINSUAT	Laguitan, Lapaken
DATU ODIN SINSUAT	Badak, Bagoenged, Bitu, Dulangan, Mompong, Sapalan, Sibuto
(DINAIG)	,g,,,g,g,g,g,g,
	Poblacion, Bagumbayan, Pedtad, Buterin, Dadtumog (Dadtumeg), Gambar, Ganta, Lower
KABUNTALAN (TUMBAO)	Taviran, Matilak, Payan, Upper Taviran
MATANOG	Sapad, Bayanga Norte, Bayanga Sur
NORTHERN KABUNTALAN	Balong, Guiawa, Indatuan, Kapimpilan, Libungan, Paulino Labio, Sabaken, Tumaguinting
PARANG	Campo Islam, Magsaysay, Cotongan, Datu Macarimbang Biruar, Gadungan,, Gadunganpedpandaran, Guiday T. Biruar, Making, Kabuan, Limbayan, Macasandag, Manion, Orandang, Poblacion II, Polloc, Samberen, Tuca-Maror
SULTAN KUDARAT (NULING)	Banubo, Bulibod, Inawan, Kabuntalan, Kakar, Katamlangan (Matampay), Katuli, Maidapa, Matengen, Mulaug, Nara, Nekitan, Olas, Panatan, Pigcalagan, Pigkelegan (Ibotegen), Pingping, Raguisi, Sambolawan, Senditan
SULTAN MASTURA	Boliok, Bungabong, Namuken, Solon
UPI	Bantek, Ganasi, Renti, Tinungkaan
LANAO DEL SUR	, · · · · · · · · · · · · · · · · · · ·
BACOLOD-KALAWI (BACOLOD GRANDE)	Sugod, Ilian, Pindolonan, Madanding, Poblacion I, Poblacion II, Bagoaingud, Balut, Barua, Buadiawani, Daramoyod, Dipatuan, Gandamato, Gurain, Lama, Liawao, Lumbaca-Ingud, Raya, Rorowan, Tuka I, Tuka II
BALABAGAN	Buenavista, Ilian, Lumbac, Matampay, Pindolonan, Bagoaingud, Batuan, Budas, Buisan (Bengabeng), Calilangan, Lalabuan, Lower Itil, Macao, Magulalung Occidental, Narra, Matanog, Molimoc, Poblacion (Balabagan), Plasan, Tataya
BALINDONG (WATU)	Abaga, Bubong, Cadayonan, Dimarao, Dado, Bantoga Wato, Bolinsong, Borakis, Cadapaan, Dadayag, Dilausan, Ingud, Kaluntay, Lalabuan,, Lati, Lilod, Limbo, Lumbac Wato, Magarang, Nusa Lumba Ranao, Padila, Paigoay, Pantaragoo, Raya, Salipongan, Talub, Tantua Raya, Tomarompong, Tuka Bubong
BAYANG	Sugod, Cadayonan, Ilian, Maliwanag, Mapantao, Pantar, Tagoranao, Tangcal, Palao, Bagoaingud, Bairan (Pob.), Bandingun, Biabi, Bialaan, Bubong Lilod, Bubong Raya, Cadingilan, Occidental, Cadingilan Oriental, Condaraan Pob. (Condaraan Dimadap), Cormatan, Gandamato, Lalapung Central, Lalapung Proper (Pob.), Lalapung Upper, Linuk (Pob.), Liong, Mimbalawag, Pama-an, Pamacotan, Parao, Patong, Poblacion (Bayang), Porotan, Raya Cadayonan, Rinabor (Pob.), Samporna (Pob.), Sapa, Silid, Sultan, Pandapatan, Sumbag (Pob.), Tangcal Proper (Pob.), Tomarompong, omongcal Ligi, Torogan, Tuca (Pob.)
BINIDAYAN	Basak, Poblacion, Bubong, Lumbac, Madaya, Pantar, Pindolonan, Badak, Baguiangun, Balut, Maito, Bubonga-Ranao, Dansalan Dacsula, Ingud, Kialilidan, Macaguiling, Magonaya, Maindig, Masolun, Olama, Pagalamatan (Pob.), Picalilangan, Picotaan, Tambac, Timbangan, Tuca
BUADIPOSO-BUNTONG	Bubong, Cadayonan, Lumbac, Pindolonan, Tangcal, Bacolod, Bangon, Bangon Proper, Boto, Ragondingan, Buadiposo Lilod, Buadiposo, Proper, Buadiposo Raya, Buntong Proper, Dirisan, Gata, Kalakala, Katogonan, Lumbatan Manacab, Lumbatan Pataingud, Lunduban (Ragondingan), Manacab (Pob.), Minanga (Buntong), Paling, Pualas, Ragondingan Proper, Ragondingan West, Raya Buntong (Buntong East), Sapot, Tarik
BUBONG	Bualan, Dibarosan, Dimayon, Pagayawan, Panalawan, Pantar, Pindolonan, Madanding, Palao, Polayagan, Bacolod, Bagoaingud, Basingan, Bubonga Didagun, Carigongan, Dalaon, Dilabayan, Dimapatoy, Dimayon Proper, Diolangan, Guiguikun, Malungun, Masorot, Matampay Dimarao, Montiaan, Pendogoan, Poblacion (Bubong), Punud, Ramain Bubong, Rogero, Salipongan, Sunggod, Taboro
BUTIG	Cabasaran, Dilimbayan, Bayabao Poblacion, Pindolonan, Coloyan Tambo, Dolangan, Malungun, Poktan, Ragayan, Raya, Sandab, Madaya, Timbab, Tiowi

Table H 6.1-9 (e) List of Barangays without Day Care

LANAO DEL SUR	
MUNICIPALITY	BARANGAY
DITSAAN-RAMAIN	Bayabao, Darimbang, Polo, Baclayan Lilod, Baclayan Raya, Buadi Alao, Barimbingan, Dado, Buadi Babai, Buayaan Lilod, Buayaan, Madanding, Buayaan Raya, Bubong, Dangiprampiai, Dangimprampiai, Dilausan, Ditsaan, Gadongan, Linamon, Lumbatan Ramain, Maindig Ditsaan, Mandara, Maranao Timber (Dalama), Pagalongan Buadiadingan, Pagalongan Ginaopan, Pagalongan Masioon, Pagalongan Proper, Ramain Poblacion, Ramain Proper, Sultan Pangadapun, Sundiga Bayabao, Talub
GANASSI	Tabuan, Balintad, Lumbac, Pagalongan, Pantaon, Pamalian, Bagoaingud, Balintad A, Barit, Barorao, Bato Batoray, Baya, Campong a Raya, Campong Sabela, Dapaan, Gadongan, Gui, Lumbacaingud, Macabao, Macaguiling, Masolun, Panggawalupa, Paraaba, Pantaon A, Pindolonan, Sekun Matampay, Sogod Madaya, Taganonok, Taliogon Dilimbayan, Pagalongan, Babayog, Cormatan, Dilabayan, Dimagaling (Dimagalin Proper),
KAPAI	Dimunda, Gadongan, Kasayanan, Kasayanan, West, Kibolos, Kining, Macadar, Malna Proper, Parao
KAPATAGAN	Kapatagan, Tabuan, Sigayan, Bongabong, Salaman, Bakikis, Barao, Inudaran, Kabaniakawan, Lusain, Matimos, Minimao, Upper Igabay
LUMBA-BAYABAO (MAGUING)	Cabasaran, Mapantao, Pagayawan, Tongcopan, Salaman, Bacolod I, Bacolod II, Bantayao, Barit, Baugan, Buad Lumbac, Calilangan, Carandangan-Mipaga, Cormatan Langban, Dialongana, Dilindongan-Cadayonan, Gadongan, Galawan, Gambai, Kasola, Lalangitun, Lama, Lindongan, Dialongana, Lobo Basara, Lumbac Bacayawan, Macaguiling, Mapoling, Maribo (Pob.), Minaring, Diladigan, Posudaragat, Rumayas, Sabala, Bantayao, Salolodun Berwar, Sarigidan Madiar, Sunggod, Taluan, Tamlang, Turogan
LUMBACA-UNAYAN	Calipapa, Bangon (Dilausan), Beta, Calalon, Dimapaok, Lumbac Dilausan, Oriental Beta, Tringun
LUMBATAN	Dalama, Lumbac, Madaya, Pantar, Alog, Buad, Bubong Macadar, Budi, Dago-ok, Dalipuga, Lalapung, Lugue, Lunay, Macadar, Penaring, Picotaan, Poblacion (Lumbatan), Tambac
LUMBAYANAGUE	Cadayonan, Dilimbayan, Pantaon, Pindolonan, Bagoaingud, Balaigay, Cabuntungan, Cadingilan, Cadingilan A, Casalayan, Dala (Dalama), Diromoyod, Kabasaran (Pob.), Lamin, Mapantao, Balangas, Miniros, Nanagun, Pitatanglan, Poctan, Singcara, Wago
MADALUM	Bacayawan, Basak, Dandamun, Paridi-Kalimodan, Abaga, Bubong, Cabasaran, Cadayonan, Dibarosan, Liangan, Linao, Lumbac, Madaya, Bato, Bagoaingud, Poblacion, Delausan, Diampaca, Gadongan, Gurain, Kormatan, Liangan I, Lilitun, Linuk, Padian, Torogan I, Sugod, Punud, Racotan, Raya, Riray, Sabanding, Salongabanding, Sogod Kaloy, Tamporong, Tongantongan, Udangun, Pagayawan
MADAMBA	Balintad, Liangan, Pantar, Tambo, Balagunun, Biabe, Bubong Uyaan, Lakitan, Lumbaca Ingud, Pagayonan, Pangadapan, Tubaran, Tulay, Uyaan Proper (Pob.)
MAGUING	Bubong, Dilimbayan, Lumbac, Madaya, Pagalongan, Madanding, Agagan, Balagunun, Balawag, Bato-bato, Bolao, Borocot, Borrowa, Botud, Buadiangkay, Bubong Bayabao, Camalig, Cambong, Dilausan (Pob.), Ilalag, Kianodan, Lilod, Borocot, Lilod Maguing, Maguing Proper, Malungun, Malungun Borocot, Malungun, Pagalongan, Panayangan, Pilimoknan, Ragayan (Rungayan), Sabala Dilausan
MALABANG	Bacayawan, BPS Village, Banday, Madaya, Matampay, Tacub, Montay, Badak Lumao, Bagoaingud, Betayan, Boniga, Campo Muslim, Bunk House, Cabasaran (South), Calibagat, Calumbog, Corahab, China Town (Pob.), Diamaro, Inandayan, Jose Abad Santos, Lamin, Mable, Macuranding, Masao, Manggahan, Matalin, Matling, Pasir, Rebocun, Sarang, Sumbagarogong, Tambara, Tiongcop, Tuboc
MARANTAO	Bacayawan, Bacong, Poblacion, Ilian, Lubo, Matampay, Tacub, Palao, Banga-Pantar, Batal-Punud, Camalig (Pob.), Camalig Bandara Ingud, Camalig Bubong, Cawayan, Cawayan Bacolod, Cawayan Kalaw, Cawayan Linuk, Daanaingud, Inudaran Campong, Inudaran Loway, Inudaran, Lumbac, Kialdan, Lumbac Kialdan, Mantapoli, Maul, Maul Ilian, Maul Lumbaca Ingud, Nataron, Pagalongan Bacayawan, Pataimas, Poona, Marantao, Punud Proper, Tuca Kialdan

Table H 6.1-91(f) List of Barangays without Day Care

LANAO DEL SUR	
MUNICIPALITY	BARANGAY
MARAWI CITY	Bangco, Dansalan, Cabasaran, Cadayonan, Banga, Lomidong, Banggolo Poblacion, Pagayawan, Paridi, Pindolonan, Somiorang, Timbangalan, Amito Marantao, Bacolod Chico, Proper, Buadi Sacayo (Green), Cadayonan I, Basak Malutlut, Beyaba-Damag, Bito Buadi Itowa, Bito Buadi Parba, Boganga, Boto Ambolong, Bubonga Lumbac, Bubonga, Cadayonan, Bubonga Lilod Madaya, Bubonga, Marawi, Bubonga Pagalamatan, Bubonga Punod, Cabingan, Gadongan, Calocan East, Calocan West, Daguduban, Datu Naga, Kapantaran, Dayawan, Dimaluna, Dulay, Dulay West, East Basak, Emie Punud, Fort, Kilala, Gadongan Mapantao, Guimba (Lilod Proper), Lilod Madaya (Pob.), Kormatan Matampay, Lilod Saduc, Matampay, Lumbac Marinaut, Lumbaca Madaya (Pob.), Lumbaca Toros, Malimono, Marinaut East, Marinaut West, Mipaga Proper, Moncado Colony, Moncado, Kadingilan, Moriatao Loksadato, Navarro (Datu Saber), Norhaya Village, Olawa Ambolong, Pagalamatan Gambai, Panggao Saduc, Pantaon (Langcaf), Papandayan, Papandayan Caniogan, Patani, Poona Marantao, Pugaan, Rapasun MSU, Raya Madaya I, Raya Madaya II, Raya Saduc, Rorogagus East, Rorogagus Proper, Sabala Manao, Sabala Manao Proper, Saduc Proper, Sagonsongan, Sangcay Dansalan, South Madaya Proper, Sugod Proper, Tampilong, Tolali, Tongantongan-Tuca Timbangalan, TorosTuca, Tuca Ambolong, Tuca Marinaut, Wawalayan Calocan, Wawalayan Marinaut
MAROGONG	Cabasaran, Cadayonan, Canibongan, Mapantao, Bagumbayan, Balut, Bitayan, Bolawan, Bonga, Cahera, Cairantang, Calumbog, Diragun, Mantailoco, Marogong East, Mayaman, Pabrica, Paigoay Coda, Pasayanan, Piangologan, Puracan, Romagondong, Sarang
MASIU	Kalilangan, Pantao, Abdullah Buisan, Alip Lalabuan, Alumpang Paino Mimbalay, Buadi Amloy, Caramian Alim Raya, Dalog Balut, Gindolongan Alabat, Gondarangin Asa Adigao Lakadun, Lanco Dimapatoy, Lomigis Sucod, Lumbaca Ingud, Macabangan Imbala, Macadaag Talaguian, Macalupang Lumbac Caramian, Macompara Apa Mimbalay, Magayo Bagoaingud, Mai Ditimbang Balindong, Mai Sindaoloan, Dansalan, Manalocon Talub, Maranat BontalisMatao Araza, Mocamad Tangul, Moriatao-Bai Labay, Putad Marandang Buisan, Sambowang Atawa, Talub Langi, Tamboro Cormatan, Tomambiling Lumbaca Ingud, Towanao Arangga, Unda Dayawan
MULONDO	Dalama, Dansalan, Bubong, Cabasaran, Dimarao, Ilian, Madaya, Pindolonan, Bagoaingud, Bangon, Buadi-Abala, Buadi-Bayawa, Buadi-Insuba, Bubonga Guilopa, Cairatan, Cormatan, Guilopa, Kitambugun, Lama (Bagoaingud), Lilod, Lilod Raybalai, Lumbac (Lumbac Bubong), Lumbaca Ingud, Poblacion (Dado), Salipongan, Sugan
PAGAYAWAN(TATARIKAN)	Ilian, Linindingan, Mapantao, Ayong, Bandara, Ingud, Bangon (Pob.), Biala-an, Diampaca, Guiarong, Kalaludan, Madang, Ngingir (Kabasaran), Padas, Paigoay, Pinalangca, Poblacion (Lumbac), Rangiran, Rubokun
PIAGAPO	Bobo, Basak, Pantaon, Paridi, Bualan, Bansayan, Bangco (Pob.), Katumbacan, Olango, Pantar, Lumbaca Mamaan, Palacat, Paling, Rantian, Bubong Ilian, Mentring, Bagoaingud, Bubonga, Mamaanun, Taporug, Ilian, Ilian Poblacion, Gacap, Aposong, Bubong Tawaan, Lininding, Udalo, Tapocan, Sapingit, Kalanganan, Talao, Palao, Radapan, Radapan Poblacion, Tawaan Pindolonan, Tambo, Mamaanun
POONABAYABAO(GATA)	Bualan, Cadayonan, Dimayon, Liangan, Lumbac, Pantao, Taporogm, Madanding, Ataragadong, Bangon, I Bansayan, Bubong-Dimunda, Bugaran, Calilangan Dicala, Calupaan, Dilausan, Dongcoan, Gadongan, Lumbaca Ingud, Poblacion (Gata Proper), Punud, Ragayan, Rogan Cairan, Rogan Tandiong Dimayon
PUALAS	Bualan, Masao, Lumbac, Maligo, Tuka, Badak, Bantayan, Basagad, Bolinsong, Boring, Danugan, Dapao, Gadongan, Ingud, Linuk, Notong, Porug, Tambo (Pob.), Tamlang, Tomarompong, Yaran
SAGUIARAN	Batangan, Poblacion, Bubong, Dilimbayan, Linao, Maliwanag, Mapantao, Natangcopan, Panggao, Pantaon, Pawak, Pindolonan, Alinun, Bagoaingud, Basak Maito, Cadayon, Cadingilan, Comonal, Dilausan, Gadongan, Limogao, Lumbac Toros, Lumbayanague, Mipaga, Pagalamatan, Patpangkat, Salocad, Sungcod
SULTANDUMALONDONG	Bacayawan, Lumbac, Pagalongan, Tagoranao, Buta (Sumalindao), Dinganun Guilopa (Dingunun), Malalis

Table H 6.1-9 (g) List of Barangays without Day Care

LANAO DEL SUR	
MUNICIPALITY	BARANGAY
SULTANGUMANDER	Ilian, Mapantao, Pindolonan, Punong, Anas, Bara-as, Biasong, Bulangos, Durian, Liangan (Pob.), Maladi, Micalubo, Mimbalawag, Ramitan, Torogan, Tual, Tuca, Ubanoban
TAGOLOANII	Kalilangan, Malinao, Cadayonan, Sigayan, Malingon, Bagoaingud, Bantalan, Bayog,,, Dagonalan, Dimalama, Gayakay, Inodaran, Kianibong, Kingan, Kitaon, Maimbaguiang, Mama-an Pagalongan, Marawi, Tagoloan, Poblacion
TAMPARAN	Minanga, Cabasaran, Lindongan, Lumbac, Maliwanag, Pagayawan, Poblacion III, Bangon, Beruar, Bocalan, Dasomalong, Dilausan, Ginaopan, Lalabuan, Lilod Tamparan, Lilod Tubok, Linuk, Linuk Oriental, Lumbaca Ingud, Lumbacaingud South, Maidan Linuk, Mala-abangon, Poblacion II, Miondas, New Lumbacaingud, Pagalamatan Linuk, Picarabawan, Pimbago-Pagalongan, Pindolonan Mariatao Sarip, Poblacion IV, Raya Niondas, Raya Tamparan, Salongabanding, Saminunggay, Tatayawan North, Tatayawan South, Tubok
TUBARAN	Alog, Polo, Dinaigan, Madaya, Bagiangun, Beta, Campo, Datumanong, Poblacion (Buribid), Gadongan, Gaput, Guiarong, Malaganding, Metadicop, Mindamudag, Pagalamatan, Paigoay-Pimbataan, Tangcal, Riantaran, Wago
TUGAYA	Bubong, Dilimbayan, Lumbac, Mapantao, Tangcal, Bagoaingud, Buadi Alawang, Campong, Talao, Cayagan, Dandanun, Gurain, Maidan, Pagalamatan, Pandiaranao, Pindolonan I, Putad, Raya, Sugod I, Sugod Mawatan, Sumbaga Rogong

# 6.1.4 Health

Table H 6.1-10 Sickness by Province

PROVINCE	AGE LESS THAN 13			AGE MORE THAN 13			
TROVINCE	1	2	3	1	2	3	
Lanao del Norte	Fever/cold	Diarrhea	Malaria	Tuberculosis	Fever/cold	Hypertension	
Lanao del Sur	Fever/cold	Diarrhea	Skin diseases	Fever/cold	Tuberculosis	Diabetes	
Compostela Valley	Fever/cold	Diarrhea	Bronchitis/ bronchiolitis	Fever/cold	Hypertension	Bronchitis/ bronchiolitis	
Davao Oriental	Fever/cold	Diarrhea	Malaria	Fever/cold	Hypertension	Diabetes	
Maguindanao	Fever/cold	Diarrhea	Skin diseases	Fever/cold	Diarrhea	Diabetes	
North Cotabato	Fever/cold	Diarrhea	Pneumonia	Hypertension	Fever/cold	Tuberculosis	
South Cotabato	Fever/cold	Diarrhea	Acute Respiratory Infection	Fever/cold	Hypertension	Tuberculosis	
Sarangani	Fever/cold	Diarrhea	Malaria	Hypertension	Fever/cold	Tuberculosis	
Shariff Kabunsuan	Fever/cold	Diarrhea	Skin diseases	Fever/cold	Hypertension	Tuberculosis	
Sultan Kudarat	Fever/cold	Diarrhea	Skin diseases	Fever/cold	Hypertension	Diabetes	
Zamboanga del Norte	Fever/cold	Diarrhea	Skin diseases	Hypertension	Fever/cold	Diabetes	
Zamboanga del Sur	Fever/cold	Diarrhea	Skin diseases	Fever/cold	Hypertension	Tuberculosis	
Zamboanga Sibugay	Fever/cold	Diarrhea	Skin diseases	Fever/cold	Hypertension	Diarrhea	
Basilan	Fever/cold	Diarrhea	Malaria	Fever/cold	Diarrhea	Malaria	

Table H 6.1-11 Number of Health Facilities and Catchment Population per Facility (2005)

ADMINISTRA TIVE UNIT	2005	NO. OF	HEALTH FAC	CATCHMENT POPULATION PER FACILITY			
	PROJECTED POPULATION	HOSPITALS	RURAL HEALTH UNITS (RHUS)	BARANGAY HEALTH CENTER (BHCS)	HOSPITALS	RHUS	BHCS
Philippines	85,298,300	1,838	2,266	15,436	46,408	37,643	5,526
Mindanao	20,291,600	476	383	3,565	42,629	52,981	5,692
CAAM	6,537,469	99	173	1,693	66,035	37,789	3,861

Source: National Statistic Coordination Board (NSCB)

Table H 6.1-12 Number of Health Facilities and Ratio to Municipality, Barangay (2005)

			NO. OF HEALTH FACILITIES			RATIO		
ADMINISTRA TIVE UNIT	BRGY	MUN	HOSPITALS	RHUS	BARANGAY HEALTH CENTERS	HOSPITALS PER MUN	RHUS PER MUN	BHCS PER BRGY
Philippines	41,980	1501	1,838	2,266	15,436	1.22	1.51	0.37
Mindanao	10,049	412	476	383	3,565	1.16	0.93	0.35
CAAM	3,847	169	99	173	1,693	0.59	1.02	0.44

Source: Philippine and Mindanao figures, NSO/NSCB, 2005; CAAM - Social Survey Report

Note: (MUN – Municipality, BRGY – Barangay)

Table H 6.1-13 Standard in RHU Personnel Population per RA No. 1082

Category	LGU/Catchment Population	Personnel			
		Doctor	Nurse	Midwife	RSI
IV	10,0001-20,000	1	1	2	1
V	20,001-30,000	1	2	2	1
VI	30,001-40,000	2	2	2	2
VII	40,001-50,000	2	2	3	3
VIII	50,001-over	2	4	4	3

Source: Department of Health (DOH)

Table H 6.1-14 (a) List of Barangays without Health Centers

PROVINCE	MUNICIPALITY	BARANGAY		
	BALIGUIAN	Guimotan, Kilalaban, Lumay, Mamad, Milidan, Poblacion		
	KALAWIT	Batayan, Botong, Fatima (Lacsutan), Kalawit (Pob.), Paraiso, Tugop*		
	LABASON	Bobongan, Gabu, Imelda, Lopoc (Pob.), New Salvacion		
	SALUG	Dinoan, Fatima (Pogan)		
ZAMBOANGA	SIBUCO	Anongan, Basak, Cabbunan, Cawit-cawit, Cusipan, Dinulan, Jatian, Kamarangan, Lambagoan, Limpapa, Lingayon, Lintangan, Litawan, Lunday, Malayal, Mantivo, Nala (Pob.), Panganuran, Pasilnahut, Puliran, Santo Nino (Culabog), Tangarak		
DEL NORTE	SIOCON	Balagunan, Bucana, Bulacan, Dionisio Riconalla, Candiz, Jose P. Brillantes, Sr. (Old Lituban), Datu Sailila, Latabon, Makiang, Malambuhangin, Manaol, Mateo Francisco, Matiag, Pangian, Pisawak, Poblacion, S. Cabral, Santa Maria, Siay, Suhaile Arabi, Tabayo, Tagaytay		
	SIRAWAI	Balatakan, Balonkan, Balubuan, Bitugan, Bongon, Catuyan, Danganon, Lagundi, Libucon, Lubok, Macuyon, Minanga, Motong, Napulan, Panabutan, Pina, Pisa Itom, Pisa Puti, Pugos, Pula Bato, Pulang Lupa, Saint Mary (Pob.), San Nicolas (Pob.), San Roque (Pob.), San Vicente (Pob.), Sipakit, Talabiga, Tapanayan		
	ALICIA	Bella, Calades, Gulayon, Lapirawan, Litayon, Tampalan, Tandiong Muslim		
	BUUG	Basalem, Bulaan, Guminta, Muyo, Pling, Poblacion, Pulog		
	DIPLAHAN	Lobing, Manangon, Mejo, Paradise, Poblacion (Diplahan), Sampoli A, Tinongtongan		
	IMELDA	Lumpanac, Poblacion (Santa Fe), Santa Barbara		
	IPIL	Magdaup		
	KABASALAN	Banker, Diampak, Poblacion		
	MABUHAY	Bagong Silang, Bangkaw-bangkaw, Caliran, Catipan, Kauswagan, Ligaya, Looc-Barlak, Pamansaan, Poblacion, Sawa, Sioton, Tandu-Comot (Katipunan)		
ZAMBOANGA	MALANGAS	Dansulao, Malungon, Palalian, Payag, Poblacion		
ZAMBOANGA	NAGA	Aguinaldo, Bangkaw-bangkaw, Mamagon, Poblacion, Santa Clara		
SIBUGAY	OLUTANGA	Galas, Looc Sapi, Matim, Pulo Laum, Pulo Mabao, Santa Maria, San Jose		
	PAYAO	Balogo, Binangonan, Calape, Guiwan, Labatan, Mayabo (Santa Maria), Nanan, San Roque, San Vicente (Binangonan), Talaptap		
	ROSELLER T. LIM	Casacon, Katipunan, Kulambugan, Palmera		
	SIAY	Balingasan, Balucanan, Bataan, Camanga, Coloran, Labasan, Lagting, Laih, Logpond, Princesa Sumama		
	TALUSAN	Aurora, Baganipay, Bualan, Cawilan, Florida, Kasigpitan, Moalboal, Poblacion (Talusan), Sagay		
	TITAY	Dalangin Muslim, La Libertad, Moalboal, Supit, Tugop		
	TUNGAWAN	Gaycon, Linguisan, Little Margos, Loboc, Masao, Tigbanuang, Upper Tungawan		
	AURORA	Bagong Mandaue, Bagong Maslog, Bagong Pitogo, Balide, Bemposa, Inroad, Kahayagan West, Monte Alegre, Montela, Poblacion, San Juan		
	DIMATALING	Bacayawan, Baha, Balanagan, Baluno, Grap, Josefina, Kagawasan, Magahis Mercedes, San Roque, Sugbay Uno, Tipangi, Upper Ludiong		
	DINAS	Benuatan, Dongos, Legarda 1, Old Mirapao, Pisa-an, Poblacion, Proper Dimaya, San Isidro, Songayan, Tarakan, Upper Dimaya		
ZAMBOANGA DEL SUR	LABANGAN	Binayan, Cogonan, Combo, Dalapang, Dipaya, Lower Campo Islam (Pob.), New Labangan, Upper Campo Islam (Pob.), Upper Pulacan		
	LAPUYAN	Dansal, Lubusan, Mahalingeb, Pampang, Pantad, Pingalay, Sayog, Tipasan, Tugaya		
	SAN PABLO	Bubual, Kapamanok, Miasin, Poblacion (San Pablo), San, Juan, Senior, Ticala Island, Villakapa		
	TUKURAN	Baclay, Balimbingan, Buenasuerte, Curvada, Libertad, Luy-a, Manilan. Santo Rosario, Sugod		

Table H 6.1-14 (b) List of Barangays without Health Centers

PROVINCE	MUNICIPALITY	BARANGAY			
TROVINCE	MUNICHALITI	Alegria, Babalaya, Babalayan Townsite, Binuni, Demologan, Dimarao,			
	BACOLOD	Kahayag, Minaulon, Pagayawan, Poblacion Bacolod, Punod (Maliwanag)			
	BALOI	Buenavista, Abaga, Angandog (Bulao), Bangko, Cadayonan, Landa (Gadongan), Lumbac, Mamaanun, Maria-Cristina, Pacalundo, Sangcad (Cormatan), Sarip-Alawi (Payawan), Sigayan			
	KAUSWAGAN	Poblacion, Kawit Occidental, Tingintingin			
	LINAMON	Poblacion  Poblacion			
		Babasalon, Daan Campo, Ilihan, Lamigadato, Lemoncret, Lubo, Malabaogan,			
	MAGSAYSAY	Mapantao, Pangao, Pelingkingan, Poblacion (Bago-A-Ingud), Rarab, Talambo, Tawinian, Tombador, Upper Caningag (Taguitingan)			
	MATUNGAO	Bangco, Pangi, Santa Cruz, Batangan, Bubong Radapan, Cadayonan, Matampay, Puntod, Somiorang			
	MUNAI	Bacayawan, Dalama, Balabacun, Balintad, Kadayonan, Lindongan, Lingco- an, Lininding, Lumba-Bayabao, Madaya, Maganding, Matampay, North Cadulawan, Old Poblacion, Panggao, Pantao, Pantao-A-Munai, Pantaon,			
		Pindolonan, Punong, Ramain, Sandigamunai, Tagoranao, Tambo, Tamparan (Mandaya), Taporog  Aloon, Bobonga Pantao Ragat, Bobonga Radapan, Calawe, Culubun,			
LANAO DEL NORTE	PANTAO RAGAT	Dilimbayan, Dimayon, Lomidong, Madaya, Maliwanag, Matampay, Natangcopan, Pansor, Pantao Marug, Poblacion West, Tangcal, Tongcopan			
NORTE	PANTAR	Kalilangan, Bangcal, Bowi, Bubong Madaya, Cabasaran, Cadayonan, Campong, Dibarosan, Kalanganan Lower, Lumba-Punod, Pantao-Marug, Pantao-Ranao, Pantar East, Pitubo, Poona-Punod, Punod, Sundiga-Punod, Tawanan, West Pantar			
	POONA PIAGAPO	Sulo, Alowin, Bubong-Dinaig, Cabasaran, Cadayonan, Caromatan, Daramba, Dinaig, Kablangan, Linindingan, Lumbatan, Lupitan, Madamba, Maliwanag, Nunang, Nunungan, Pantao Raya, Pantaon, Piangamangaan, Tagoranao, Tangclao, Timbangalan			
	SAPAD	Dansalan, Baning, Buriasan (Pob.), Gamal, Inudaran I, Inudaran II, Karkum, Mabugnao, Maito Salug, Mala Salug, Mama-anon, Mapurog, Pancilan, Panoloon, Pili			
	SULTAN NAGA DIMAPORO	Bangco, Kauswagan, Dalama, Mabuhay, Tagulo, Bangaan, Cabongbongan, Calibao, Calipapa, Calube, Campo Islam, Capocao, Dabliston, Dangulaan, Ditago, Ilian, Koreo, Maguindanao, Mina, Pandanan, Payong, Pikalawag, Pikinit, Piraka, Ramain, Rebucon, Sigayan, Tantaon			
	TAGOLOAN	Dalamas, Darimbang, Dimayon, Kiazar (Pob.), Malimbato			
	TANGCAL	Bayabao, Berwar, Big Meladoc, Bubong, Lamaosa, Linao, Lindongan, Lingco-an, Papan, Pelingkingan, Poona Kapatagan, Punod, Small Meladoc, Somiorang			
COMPOSTELA VALLEY	PANTUKAN	Tag-Ugpo			
	ALAMADA	Guiling, Mirasol, Raradangan			
	ALEOSAN	Luanan, Dunguan, Katalicanan			
	ARAKAN	Datu Ladayon, Greenfield, Lanao Kuran			
	BANISILAN	Pantar, Busaon, Capayangan, Kalawaig, Malagap, Poblacion II, Solama Poblacion, Aroman, Bentangan, Kibenes, Kibugtongan, Lanoon,			
	CARMEN KABACAN	Macabenban, Pebpoloan, Tambad, Tupig  Bannawag, Buluan, Nanga-an, Sanggadong, Simbuhay, Simone			
	LIBUNGAN	Poblacion, Gumaga			
СОТАВАТО	MAKILALA	Bato, Jose Rizal			
(NORTH COTABATO)	MATALAM	Poblacion, Central Malamote, Kibudoc, New Abra, New Bugasong, New Pandan, Taculen			
	MIDSAYAP	San Pedro, Santa Cruz, Barangay Poblacion 1, Barangay Poblacion 4, Barangay Poblacion 5, Barangay Poblacion 8, Kadigasan, Kadingilan, Kapinpilan, Kudarangan, Lomopog, Macasendeg, Milaya, Nabalawag, Olandang, Tugal			
	PIGKAWAYAN	Banucagon, Buricain, Datu Binasing, Datu Mantil, Libungan Torreta, Lower Baguer, Mulok, Poblacion I, Poblacion II			
	PIKIT	Macasendeg, Balong, Balungis, Barungis, Buliok, Bulod, Bulol, Damalasak, Gligli, Inug-ug, Kabasalan, Macabual, Nunguan, Paidu Pulangi			

Table H 6.1-14 (c) List of Barangays without Health Centers

PROVINCE	MUNICIPALITY	BARANGAY
	GLAN	Lago
SARANGANI	MAITUM	Tuanadatu
	COLUMBIO	Elbebe, Lomoyon, Makat (Sumali Pas), Polomolok
	KALAMANSIG	Cadiz
	LAMBAYONG	Lagao, Madanding
	(MARIANO	
SULTAN	MARCOS)	
KUDARAT	LEBAK	New Calinog, Pasandalan
KOD/MATI	LUTAYAN	Maindang
		Mina, Akol, Balwan (Bulan), Bambanen, Barongis, Batang-baglas, Butril,
		Domolol, Kabuling, Kanipaan, Kidayan, Kiponget, Kisek, Langali, Ligao,
	PALIMBANG	Lumitan, Maganao, Maguid, Malatuneng (Malatunol), Malisbong, Medol,
	AMDAD	Namat Masla, Napnapon, Wal, Wasag
	AKBAR	Caddayan, Linongan, Lower Bato-bato, Mangalut
	AL-BARKA	Apil-apil, Bucalao Basakan, Langil
	HADJI MOHAMMAD AJUL	Basakan, Langii
	AJUL	Dasalan, luuk-bungsod, mananggal, palahangan, panducan, sangbay big,
	HADJI MUHTAMAD	sangbay small
		Ba-as, Baimbing, Balobo, Baungos, Bohebessey, Boheibu, Bohenange,
		Boheyakan, Boheyawas, Buahan, Bulanting, Calugusan, Colonia, Danit-
	LAMITAN	Puntocan, Lebbuh, Lo-ok, Luksumbang, Lumuton, Malo-ong Canal,
		Matatag, Parangbasak, Simbangon, Tumakid, Ulame
		Bagbagon, Baungis, Calayan, Calugusan, Canibungan, Dasalan, Landugan,
	LANTAWAN	Lantawan Proper (Pob.), Lawila, Lawi-lawi, Luukbongsod, Luuk-Maluha,
	LANTAWAN	Mananggal, Palahangan, Panducan, Paniongan, Parian-Baunoh, Sangbay
		Big, Sangbay Small, Suba-an (Pangasahan), Switch Yakal, Upper Manggas
		Calang Canas, Fuente Maluso, Guanan North (Zone I), Limbubong,
BASILAN		Mahayahay Lower (Zone I), Mahayahay Upper (Zone II), Muslim Area,
	MALUSO	Port Holland Zone II Pob. (Shipyard Main), Port Holland Zone IV
		(Lower), Port Holland Zone V (Shipyard Tabuk), Taberlongan, Tubigan,
		Upper Garlayan
		Basak, Bacung, Baiwas, Benembengan Lower, Benembengan Upper,
	CLIMICID	Bohe-languyan, Buli-buli, Cabengbeng Upper, Guiong, Kaum-Air, Kaumpamatsakem, Libug, Limbocandis, Lukketon, Luuk-Bait, Manaul,
	SUMISIP	Marang, Mebak, Sahaya Bohe Bato, Sapah Bulak, Sumisip Central, Tikus,
		Tongsengal, Tumahubong
	TABUAN-LASA	Babag (Babuan Island), Balanting, Bukut-Umus, Kaumpurnah, Pisak-
		Pisak, Saluping, Suligan (Babuan Island), Sulloh (Tapiantana), Tambulig
		Buton
	TIPO-TIPO	Badja, Baguindan, Banah, Bangcuang, Bohebaca, Bohelebung, Bohe-
	TIPO-TIPO	Tambak, Lagayas, Limbo-Upas, Silangkum
	TUBURAN	Katipunan, Duga-a, Lahi-lahi, Lower Tablas, Mahawid, Sinulatan, Tablas
	10000111	Usew
	AMPATUAN	Dicalongan (Pob.), Tubak
	BULUAN	Poblacion, Digal, Lower Siling, Popol, Upper Siling
	DATE CALL	Bulod, Elbebe, Alef, Bonawan, Damawato, Kalumenga (Kalumanga),
	DATU PAGLAS	Lipao, Makat, Mangadeg, Manindolo, Mao, Palao sa Buto, Puya, Salendab,
		Sepaka
	DATU PIANG	Buayan, Dado, Montay, Alonganan, Balanakan, Damabalas, Kalipapa,
		Liong, Masigay, Pandi Daladap, Tuka, Bagumbong, Dabenayan, Dasikil, Duguengen, Liab,
MAGUINDANAO	MAMASAPANO	Linantangan, Manongkaling, Pagatin, Pidsandawan, Pimbalakan, Sapakan
		Bulod, Talitay, Balatungkayo (Batungkayo), Bulit, Maridagao, Pagagawan,
	PAGAGAWAN	Talapas, Tunggol
	PAGLAT	Campo, Kakal, Salam, Tual, Upper Idtig
		Ahan, Datalpandan, Kalumamis, Kateman, Lambayao, Muslim, Muti,
	GUINDULUNGAN	Tambunan II
	DATHUNGAN	Pamalian, Bulayan, Macalag, Malangog, Meta, Panangeti, Pikeg,
	DATU UNSAY	Tuntungan
	<u> </u>	

Table H 6.1-14 (d) List of Barangays without Health Centers

		DADANCAV		
PROVINCE	MUNICIPALITY	BARANGAY		
	DATU SAUDI AMPATUAN	Sambulawan, Ganta, Gawang, Inaladan, Kabengi, Kitango, Madia, Penditen		
	DATU ABDULLAH SANGKI	Guinibon, Maganoy, Mao, Tukanolocong (Tukanologong)		
	DATU ANGGAL MIDTIMBANG	Tugal, Mapayag, Midtimbang (Pob.), Tulunan		
	MANGUDADATU	Kalian, Paitan, Daladagan, Luayan, Tenok		
	PANDAG	Lower Dilag		
	RAJAH BUAYAN	Gaunan, Baital, Bakat, Dapantis, Malibpolok, Mileb, Tabungao		
	PAGALUNGAN	Inug-ug, Bagoenged, Dalgan, Kalbugan, Kilangan, Kudal		
MAGUINDANAO	GEN. S. K. PENDATUN	Badak, Bulod, Pidtiguian, Kulasi, Lao-lao, Lasangan, Lumabao, Makainis, Midconding, Midpandacan, Panosolen, Quipolot, Ramcor, Sadangen, Sumakubay, Tonggol, Upper Lasangan		
	SHARIFF AGUAK (MAGANOY)	Bialong, Malingao, Poblacion I, Poblacion II, Bagong, Dale-Bong, Dilembong, Kubentong, Kuloy, Labu-labu, Labu-labu I, Labu-labu		
		II, Sayap, Taib, Talibadok, Tapikan, Tuayan, Tuayan I		
	SOUTH UPI SULTAN SA BARONGIS	San Jose, Biarong, Kigan, Lamud Bulod, Tugal, Darampua, Kulambog, Langgapanan, Papakan		
	(LAMBAYONG)	Durou, Tugar, Darampua, Kurambug, Langgapanan, Papakan		
	TALAYAN	Binangga North, Binangga South, Boboguiron, Fugotan, Fukol, Kedati, Lanting, Marader, Timbaluan		
	TALITAY	Talitay, Gadungan, Kiladap, Kilalan, Makadayon, Pageda		
	BARIRA	Panggao, Nabalawag, Gadung, Korosoyan, Lamin, Liong, Lipa, Lipawan, Marang, Minabay, Rominimbang		
	BULDON	Ampuan, Calaan (Pob.), Mataya, Minabay, Pantawan, Piers		
	DATU BLAH T. SINSUAT	Tambak, Sedem, Sinipak		
	DATU ODIN SINSUAT	Badak, Bongued, Capiton, Dulangan, Kakar, Makir, Mompong,		
	(DINAIG)	Nekitan, Sapalan, Sibuto, Tenonggos		
	KABUNTALAN (TUMBAO)	Bagumbayan, Buterin, Lower Taviran, Maitong, Matilak, Payan		
	MATANOG	Bayanga Norte, Bayanga Sur, Bugasan Sur (Pob.)		
SHARIFF KABUNSUAN	NORTHERN KABUNTALAN	Montay, Guiawa, Paulino Labio, Tumaguinting		
In Bornson	PARANG	Campo Islam, Datu Macarimbang Biruar, Kabuan, Landasan (Sarmiento), Limbayan, Orandang, Samberen		
	SULTAN KUDARAT (NULING)	Katidtuan, Banatin, Banubo, Bulibod, Inawan, Kabuntalan, Kapimpilan, Katamlangan (Matampay), Ladia, Matengen, Nalinan, Nekitan, Olas, Panatan, Pigcalagan, Pigkelegan (Ibotegen), Pingping, Raguisi, Sambolawan, Senditan		
	SULTAN MASTURA	Boliok, Namuken		
	UPI	Ganasi, Mirab, Nuro Poblacion, Ranao Pilayan, Renti, Rifao, Tinungkaan		
	BACOLOD-KALAWI (BACOLOD GRANDE)	Sugod, Bubong, Ilian, Pindolonan, Tambo, Poblacion I, Poblacion II, Bagoaingud, Balut, Barua, Buadiawani, Daramoyod, Dilabayan, Dipatuan, Gandamato, Gurain, Lama, Liawao, Lumbaca-Ingud, Orong, Raya, Rorowan, Tuka I, Tuka II		
LANAO DEL SUR	BALABAGAN	Buenavista, Ilian, Lumbac, Matampay, Pindolonan, Purakan, Bagoaingud, Banago, Budas, Buisan (Bengabeng), Calilangan, Lalabuan, Lorenzo, Lower Itil, Macao, Magulalung Oriental, Matanog, Molimoc, Narra, Plasan, Poblacion (Balabagan), Tataya, Upper Itil		
	BALINDONG (WATU)	Bualan, Lumbayao, Abaga, Bubong, Cadayonan, Dimarao, Malaig, Pagayawan, Dado, Bantoga Wato, Barit, Bolinsong, Borakis, Cadapaan, Dibarusan, Dilausan, Ingud, Kaluntay, Lati, Lilod, Limbo, Lumbac Wato, Magarang, Nusa Lumba Ranao, Padila, Paigoay, Pantaragoo, Poblacion (Balindong),Raya, Salipongan, Talub, Tomarompong, Tuka Bubong		

Table H 6.1-14 (e) List of Barangays without Health Centers

PROVINCE	MUNICIPALITY	BARANGAY
110 THEE		Sugod, Cadayonan, Ilian, Linao, Lumbac, Maliwanag, Mapantao,
	BAYANG	Pantar, Tagoranao, Tangcal, Palao, Bagoaingud, Bairan (Pob.), Bandingun, Biabi, Bialaan, Bubong Lilod, Bubong Raya, Cadingilan Occidental, Cadingilan Oriental, Condaraan Pob. (Condaraan
		Dimadap), Cormatan, Gandamato, Lalapung Central, Lalapung Proper (Pob.), Lalapung Upper, Linuk (Pob.), Liong, Lumbac
	Billing	Cadayonan, Mimbalawag, Pama-an, Pamacotan, Parao, Patong,
		Poblacion (Bayang), Porotan, Rantian, Raya Cadayonan, Rinabor (Pob.), Samporna (Pob.), Sapa, Silid, Sultan Pandapatan, Sumbag
		(Pob.), Tangcal Proper (Pob.), Tomarompong, Tomongcal Ligi, Torogan, Tuca (Pob.)
	BINIDAYAN	Poblacion, Bubong, Lumbac, Madaya, Pantar, Pindolonan, Badak, Baguiangun, Balut Maito, Bubonga-Ranao, Dansalan Dacsula, Ingud, Kialilidan, Macaguiling, Maindig, Masolun, Olama,
		Pagalamatan (Pob.), Picalilangan, Picotaan, Soldaroro, Tambac
		Dansalan, Cadayonan, Lumbac, Pindolonan, Tangcal, Tuka, Bacolod, Bangon, Bangon Proper, Buadiposo Lilod, Buadiposo
	DILL DIDOGO DI DITONO	Proper, Buadiposo Raya, Dirisan, Gata, Kalakala, Katogonan,
	BUADIPOSO-BUNTONG	Lumbatan Manacab, Lumbatan Pataingud, Lunduban (Ragondingan), Minanga (Buntong), Paling, Pualas, Ragondingan
		East, Ragondingan Proper, Raya Buntong (Buntong East), Sapot, Tarik
		Bualan, Batangan, Dibarosan, Dimayon, Pagayawan, Pantar, Pindolonan, Palao, Polayagan, Bacolod, Bagoaingud, Bansayan,
	DUDONG	Basingan, Bubonga Didagun, Carigongan, Dalaon, Dilabayan,
	BUBONG	Dimapatoy, Dimayon Proper, Diolangan, Guiguikun, Malungun, Masorot, Matampay Dimarao, Miabalawag, Montiaan, Pendogoan,
		Poblacion (Bubong), Punud, Ramain Bubong, Rogero, Salipongan, Sunggod, Taboro
LANAO DEL SUR	BUTIG	Cabasaran, Dilimbayan, Butig Proper, Coloyan Tambo, Dolangan,
Em mo bee sen	Bellio	Malungun, Poktan, Ragayan, Raya, Samer, Sundig, Timbab, Tiowi Bayabao, Darimbang, Dado, Polo, Baclayan Lilod, Baclayan Raya,
		Barimbingan, Buadi Alao, Buadi Babai, Buadi Oloc, Buayaan
	DITSAAN-RAMAIN	Madanding, Buayaan Raya, Bubong Dangiprampiai, Dangimprampiai, Dilausan, Gadongan, Linamon, Lumbatan Ramain,
		Maindig Ditsaan, Maranao Timber (Dalama), Pagalongan Buadiadingan, Pagalongan Ginaopan, Pagalongan Masioon,
		Pagalongan Proper, Ramain Poblacion, Ramain Proper, Rantian,
		Sultan Pangadapun, Sundiga Bayabao, Talub Tabuan, Balintad, Lumbac, Pagalongan, Pantaon, Pindolonan,
		Pamalian, Bagoaingud, Balintad A, Barit, Barorao, Bato Batoray,
	GANASSI	Baya, Campong a Raya, Campong Sabela, Dapaan, Gadongan, Gui, Linuk, Lumbacaingud, Macaguiling, Masolun, Pangadapun,
		Panggawalupa, Pantaon A, Para-aba, Sekun Matampay, Sogod Madaya, Taganonok, Taliogon
	KAPAI	Dilimbayan, Pagalongan, Pantaon, Babayog, Cormatan, Dilabayan, Dimunda, Doronan, Gadongan, Kasayanan, Kasayanan West,
		Kibolos, Kining, Lidasan, Macadar, Poblacion (Kapai Proper)
	KAPATAGAN	Kapatagan, Tabuan, Sigayan, Bakikis, Barao, Daguan, Kabaniakawan, Lusain, Matimos, Minimao, Upper Igabay
		Cabasaran, Mapantao, Pagayawan, Tongcopan, Salaman, Bacolod I, Bacolod II, Barit, Baugan, Buad Lumbac, Calilangan, Carandangan-
	LIMBA DAWARAO	Mipaga, Cormatan Langban, Dialongana, Dilindongan-Cadayonan,
	LUMBA-BAYABAO (MAGUING)	Gadongan, Galawan, Gambai, Kasola, Lalangitun, Lama, Lindongan Dialongana, Lobo Basara, Lumbac Bacayawan, Macaguiling,
	•	Mapoling, Maribo (Pob.), Minaring Diladigan, Posudaragat, Rumayas, Salolodun Berwar, Sarigidan Madiar, Sunggod, Taluan,
		Tamlang, Turogan
	LUMBACA-UNAYAN	Calipapa, Bangon (Dilausan), Calalon, Dimapaok, Oriental Beta, Tringun
		THINGUN

Table H 6.1-14 (f) List of Barangays without Health Centers

PROVINCE	MUNICIPALITY	BARANGAY	
	LUMBATAN	DalamA, Minanga, Lumbac, Madaya, Alog, Basayungun, Buad, Bubong Macadar, Budi, Dago-ok, Dalipuga, Lalapung, Lugue, Lumbac Bacayawan, Lunay, Macadar, Penaring, Picotaan, Poblacion (Lumbatan), Tambac	
	LUMBAYANAGUE	Bualan, Cadayonan, Dilimbayan, Pantaon, Pindolonan, Bagoaingud, Balaigay, Cabuntungan, Cadingilan, Cadingilan A, Casalayan, Dala (Dalama), Diromoyod, Kabasaran (Pob.), Lamin, Mapantao- Balangas, Miniros, Nanagun, Pitatanglan, Poctan, Singcara, Wago	
	MADALUM	Bacayawan, Basak, Poblacion, Sugod, Abaga, Bubong, Cabasaran, Cadayonan, Dibarosan, Liangan, Linao, Lumbac, Madaya, Bato, Bagoaingud, Dandamun, Delausan, Diampaca, Gadongan, Gurain, Kormatan, Liangan I, Lilitun, Padian Torogan I, Paridi-Kalimodan, Punud, Racotan, Raya, Riray, Sabanding, Salongabanding, Sogod Kaloy, Tamporong, Tongantongan, Udangun, Pagayawan	
	MADAMBA	Balintad, Liangan, Pantar, Tambo, Balagunun, Biabe, Bubong Uyaan, Lakitan, Lumbaca Ingud, Pagayonan, Pangadapan, Tubaran, Tulay, Uyaan Proper (Pob.)	
	MAGUING	Bubong, Dilimbayan, Lumbac, Madaya, Pagalongan, Madanding, Agagan, Balagunun, Balawag, Balintao, Bato-bato, Bolao, Borocot, Borrowa, Botud, Buadiangkay, Bubong Bayabao, Camalig, Cambong, Dilausan (Pob.), Ilalag, Kianodan, Lilod Borocot, Lilod Maguing, Malungun, Malungun Borocot, Malungun Pagalongan, Panayangan, Pilimoknan, Ragayan (Rungayan), Sabala Dilausan	
LANAO DEL SUR	MALABANG	Bacayawan, Masao, Banday, Madaya, Matampay, Tacub, Montay, Badak Lumao, Bagoaingud, Betayan, Boniga, BPS Village, Bunk House, Cabasaran (South), Calibagat, Calumbog, Campo Muslim, China Town (Pob.), Diamaro, Inandayan, Jose Abad Santos, Lamin, Mable, Macuranding, Mananayo, Manggahan, Matalin, Pasir, Pialot, Rebocun, Sarang, Sumbagarogong, Tambara, Tiongcop	
	MARANTAO	Bacayawan, Bacong, Ilian, Lubo, Palao, Banga-Pantar, Batal-Punud, Bubong Madanding (Bubong), Camalig (Pob.), Camalig Bandara Ingud, Camalig Bubong, Cawayan, Cawayan Bacolod, Cawayan Kalaw, Daanaingud, Inudaran Campong, Inudaran Loway, Inudaran Lumbac, Kialdan, Lumbac Kialdan, Mantapoli, Maul Ilian, Nataron, Pagalongan Bacayawan, Pataimas, Poona Marantao, Punud Proper	
	MARAWI CITY	Bangco, Dansalan, Cadayonan, Kilala, Lomidong, Matampay, Pagayawan, Paridi, Pindolonan, Somiorang,, Timbangalan, Ambolong, Amito Marantao, Bacolod, Chico Proper, Banga, Banggolo Poblacion, Bangon, Basak Malutlut, Beyaba-Damag, Bito Buadi Itowa, Bito Buadi Parba, Boganga,Boto Ambolong, Buadi Sacayo (Green), Bubong Lumbac, Bubonga Cadayonan, Bubonga Lilod Madaya, Bubonga Marawi, Bubonga Pagalamatan, Bubonga Punod, Cabingan, Calocan West, Daguduban, Datu Naga, Datu Sa Dansalan, Dayawan, Dimaluna, Dulay, Dulay West, East Basak, Fort, Gadongan, Gadongan Mapantao, Guimba (Lilod Proper), Kormatan Matampay, Lilod Madaya (Pob.), Lilod Saduc, Lumbac Marinaut, Lumbaca Madaya (Pob.), Lumbaca Toros, Malimono, Marinaut East, Marinaut West, Mipaga Proper, Moncado Colony, Moncado Kadingilan, Moriatao Loksadato, Navarro (Datu Saber), Norhaya Village, Olawa Ambolong, Pagalamatan Gambai, Panggao Saduc, Pantaon (Langcaf), Papandayan, Papandayan Caniogan, Patani, Pugaan, Rapasun MSU, Raya Madaya I, Raya Madaya II, Raya Saduc, Rorogagus East, Rorogagus Proper, Sabala Manao, Sabala Manao Proper, Saduc Proper, Sagonsongan, Sangcay Dansalan, South Madaya Proper, Tampilong, Tolali, Tongantongan-Tuca Timbangalan, Toros, Tuca, Tuca Marinaut, Wawalayan Marinaut	

Table H 6.1-14 (g) List of Barangays without Health Centers

PROVINCE	MUNICIPALITY	BARANGAY
	MAROGONG	Cabasaran, Cadayonan, Canibongan, Mapantao, Bagumbayan, Balut, Bitayan, Bolawan, Bonga, Cahera, Cairantang, Calumbog, Mantailoco, Marogong East, Mayaman, Pabrica, Paigoay Coda, Pasayanan, Piangologan, Puracan, Sarang
	MASIU	Kalilangan, Abdullah Buisan, Alip Lalabuan, Alumpang Paino Mimbalay, Buadi Amloy, Caramian Alim Raya, Dalog Balut, Gindolongan Alabat, Laila Lumbac Bacon, Lakadun, Lanco Dimapatoy, Lomigis Sucod, Lumbaca Ingud, Macabangan Imbala, Macadaag Talaguian, Macalupang Lumbac Caramian, Macompara Apa Mimbalay, Magayo Bagoaingud, Mai Ditimbang Balindong, Mai Sindaoloan Dansalan, Maranat Bontalis, Matao Araza, Mocamad Tangul, Moriatao-Bai Labay, Putad Marandang Buisan, Sambowang Atawa, Sawir, Talub Langi, Tamboro Cormatan, Tomambiling Lumbaca Ingud, Towanao Arangga, Unda Dayawan
	MULONDO	Dalama, Dansalan, Bubong, Cabasaran, Dimarao, Ilian, Madaya, Pindolonan, Bagoaingud, Bangon, Buadi-Abala, Buadi-Bayawa, Buadi-Insuba, Bubonga Guilopa, Cairatan, Cormatan, Guilopa, Kitambugun, Lama (Bagoaingud), Lilod, Lilod Raybalai, Lumbaca Ingud, Salipongan, Sugan
	PAGAYAWAN(TA TARIKAN)	Ilian, Linindingan, Mapantao, Ayong, Bandara Ingud, Bangon (Pob.), Biala-an, Diampaca, Guiarong, Kalaludan, Madang, Ngingir (Kabasaran), Padas, Paigoay, Pinalangca, Poblacion (Lumbac), Rangiran, Rubokun
	PIAGAPO	Tambo, Basak, Pantaon, Paridi, Bansayan, Bangco (Pob.), Katumbacan, Olango, Pantar, Lumbaca Mamaan, Palacat, Paling, Rantian, Bubong Ilian, Mentring, Bagoaingud, Bubonga Mamaanun, Taporug, Radapan Poblacion, Bualan, Gacap, Aposong, Bubong Tawa-an, Lininding, Tapocan, Sapingit, Kalanganan, Talao, Palao, Bobo, Tawaan, Pindolonan, Mamaanun
LANAO DEL SUR	POONABAYABAO( GATA)	Ilian, Mapantao, Pindolonan, Punong, Anas, Biasong, Durian, Liangan (Pob.), Mimbalawag, Ramitan, Torogan, Tual, Tuca, Ubanoban, Bualan, Cadayonan, Dimayon, Liangan, Lumbac, Pantao, Taporog, Madanding, Ataragadong, Bugaran, Calilangan Dicala, Calupaan, Dilausan, Dongcoan, Gadongan, Lumbaca Ingud, Poblacion (Gata Proper), Punud, Rogan Tandiong Dimayon, Talaguian
	PUALAS	Bualan, Masao, Lumbac, Maligo, Tuka, Badak, Bantayan, Basagad, Bolinsong, Boring, Danugan, Dapao, Diamla, Gadongan, Ingud, Linuk, Notong, Porug, Romagondong, Tambo (Pob.), Tamlang, Tomarompong, Yaran
	SAGUIARAN	Batangan, Poblacion, Bubong, Dilimbayan, Linao, Maliwanag, Mapantao, Natangcopan, Panggao, Pantao Raya, Pantaon, Pindolonan, Alinun, Bagoaingud, Basak Maito, Cadayon, Cadingilan, Comonal, Dilausan, Gadongan, Limogao, Lumbac Toros, Lumbayanague, Mipaga, Pagalamatan, Pamacotan, Patpangkat, Salocad, Sungcod
	SULTANDUMALO NDONG	Bacayawan, Pagalongan, Tagoranao, Buta (Sumalindao), Dinganun Guilopa (Dingunun), Malalis
	TAGOLOANII	Kalilangan, Malinao, Cadayonan, Sigayan, Malingon, Bagoaingud, Bantalan, Bayog, Dagonalan, Dimalama, Gayakay, Inodaran, Kianibong, Kingan, Kitaon, Maimbaguiang, Mama-an Pagalongan, Marawi, Tagoloan Poblacion
	TAMPARAN	Minanga, Cabasaran, Lindongan, Lumbac, Maliwanag, Pagayawan, Poblacion II, Poblacion III, Bangon, Beruar, Bocalan, Dasomalong, Dilausan, Ginaopan, Lalabuan, Lilod Tamparan, Lilod Tubok, Linuk, Linuk Oriental, Lumbaca Ingud, Lumbaca Lilod, Lumbacaingud South, Maidan Linuk, Mala-abangon, Mariatao Datu, Miondas, New Lumbacaingud, Occidental Linuk, Pagalamatan Linuk, Picarabawan, Pimbago-Pagalongan, Pindolonan, Mariatao Sarip, Poblacion IV, Raya Buadi Barao, Raya Niondas, Raya Tamparan, Salongabanding, Saminunggay, Tatayawan North, Tatayawan South, Tubok
	TUBARAN	Polo, Madaya, Bagiangun, Beta, Campo, Datumanong, Dinaigan, Gadongan, Gaput, Guiarong, Malaganding, Metadicop, Mindamudag, Pagalamatan, Paigoay-Pimbataan, Riantaran, Wago
	TUGAYA	Bubong, Dilimbayan, Lumbac, Mapantao, Tangcal, Bagoaingud, Buadi Alawang, Buadi Dico, Campong Talao, Cayagan, Dandanun, Gurain, Maidan, Pagalamatan, Pandiaranao, Pindolonan I, Poblacion (Ingud), Putad, Raya, Sugod I, Sugod Mawatan, Sumbaga Rogong

Note: Provinces without DATA on Health facilities (City of Isabela (Null), Compostela Valley, South Cotabato

Table H 6.1-15 List of Municipalities Without Hospitals

PROVINCE NAME	MUNICIPAL NAME
ZAMBOANGA DEL NORTE	BALIGUIAN, KALAWIT, SALUG, SIBUCO, SIRAWAI
ZAMBOANGA DEL SUR	DIMATALING, LAPUYAN, SAN PABLO, TUKURAN
ZAMBOANGA SIBUGAY	MABUHAY, OLUTANGA, ROSELLER LIM, SIAY, TALUSAN, TITAY, TUNGAWAN
LANAO DEL NORTE	BACOLOD, BALOI, LINAMON, MAGSAYSAY, MATUNGAO, MUNAI, PANTAO RAGAT, PANTAR, POONA PIAGAPO, SULTAN NAGA DIMAPORO (KAROMATAN), TAGOLOAN, TANGCAL
DAVAO ORIENTAL	TARRAGONA
NORTH COTABATO	ARAKAN, BANISILAN, KABACAN, PIGKAWAYAN, PIKIT
SARANGANI	MALAPATAN
SULTAN KUDARAT	BAGUMBAYA, COLUMBIO, LUTAYAN, PALIMBANG
BASILAN	AKBAR, HADJI MUHTAMAD, LANTAWAN, MALUSO, SUMISIP, TABUAN-LASA, TIPO-TIPO, TUBURAN
LANAO DEL SUR	BACOLOD-KALAWI (BACOLOD GRANDE), BALABAGAN, BAYANG, BUADIPOSO-BUNTONG, BUBONG, BUTIG, DITSAAN-RAMAIN, GANASSI, KAPAI, KAPATAGAN, LUMBA-BAYABAO (MAGUING), LUMBACA-UNAYAN, LUMBATAN, LUMBAYANAGUE, MADALU, MADAMBA, MAGUING, MARANTAO, MAROGONG, MASIU, MULONDO, PAGAYAWAN (TATARIKAN), PIAGAPO, PICONG (SULTAN GUMANDER), POONA BAYABAO (GATA), PUALAS, SAGUIARAN, SULTAN DUMALONDONG, TAGOLOAN II, TUBARAN, TUGAYA
MAGUINDANAO	AMPATUAN, PAGALUNGAN, SULTAN SA BARONGIS (LAMBAYONG), TALAYAN, GEN. S. K. PENDATUN, TALITAY, PAGAGAWAN, PAGLAT, GUINDULUNGAN, DATU SAUDI, AMPATUAN, DATU UNSAY, DATU ABDULLAH SANGKI, RAJAH BUAYAN, DATU ANGGAL MIDTIMBANG, MANGUDADATU, PANDAG
SHARIFF KABUNSUAN	BARIRA, BULDON, DATU BLAH T. SINSUAT, KABUNTALAN (TUMBAO, MATANOG, NORTHERN KABUNTALAN, SULTAN KUDARAT (NULING), SULTAN MASTURA

Note: Provinces without DATA on Health facilities (City of Isabela (Null), Compostela Valley, South Cotabato)

Table H 6.1-16 List of Municipalities without RHUs

PROVINCE NAME	MUNICIPAL NAME
ZAMBOANGA DEL NORTE	Salug, Sibuco
ZAMBOANGA DEL SUR	Labangan, Tukuran
ZAMBOANGA SIBUGAY	Buug, Ipil (capital), Mabuhay, Titay
LANAO DEL NORTE	Matungao, Munai, Pantao Ragat, Pantar, Poona Piagapo, Sapad
NORTH COTABATO	Banisilan, Pikit
SULTAN KUDARAT	Isulan (capital)
BASILAN	Akbar, Hadji Muhtamad, Maluso, Sumisip, Tabuan-Lasa, Tipo-Tipo
LANAO DEL SUR	Bacolod-Kalawi (Bacolod Grande), Binidayan, Butig, Ganassi, Kapai, Lumba-Bayabao (Maguing), Lumbaca-Unayan, Lumbatan, Lumbayanague, Madalum, Madamba, Maguing, Marantao, Marawi City (Capital), Marogong, Mulondo, Piagapo, Poona Bayabao (Gata), Pualas, Sultan Dumalondong, Tagoloan Ii, Tubaran, Tugaya
MAGUINDANAO	Ampatuan, Sultan Sa Barongis (Lambayong), Datu Unsay, Rajah Buayan, Mangudadatu, Pandag
SHARIFF KABUNSUAN	Datu blah T. Sinsuat, Sultan Mastura

SOCIO-ECONOMIC PROFILE OF CAAM	1
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1.1.1 Water Resources	1
1.1.2 Mineral Resources	1
1.1.3 Biological Diversity	1
1.2 LAND USE	2
1.2.1 Production Land Use	2
1.2.2 Agricultural Land	2
1.2.3 Fishing Area	2
1.2.4 Forestlands	2
1.2.5 Mineral Lands	2
1.2.6 Industrial Areas	2
1.2.7 Tourism Areas	3
1.2.8 Protection Land Use	3
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# **APPENDICES**

# APPENDIX I

DEVELOPMENT, PEACE AND HUMAN SECURITY

# APPENDIX I1-1: DEVELOPMENT, PEACE AND HUMAN SECURITY

#### JICA SERD-CAAM STUDY TEAM

#### 1.0 DEVELOPMENT AND HUMAN SECURITY

#### 1.1 INTRODUCTION

Development and peace are key components in the formulation of the Socio-Economic Development Plan in Conflict Affected Areas of Mindanao.

Development and human security are inextricably linked. Moreover, development is a holistic endeavour combining economic, political, social, environmental and inter-cultural development. Violent conflict is one of the most important obstacles to development and one of the prime inducers of poverty. In Mindanao, the past and present armed conflicts between the forces of the Government of the Republic of the Philippines (GRP) and the Moro Islamic Liberation Front (MILF) and other armed groups have negatively impact on the ability of the affected areas to realize the Millennium Development Goals, particularly eradicating poverty and hunger. These affected communities in the CAAM, not only those with the lowest incomes but also those who are the most deprived of health, education and other aspects of human well-being, excluding them from recognized development benefits and opportunities.

Conflict hampers development and continues to displace people from their homes and drive them into poverty. One indication of the impact of conflict is the number of internally displaced persons, which has increased significantly since August 2008 up to the present, primarily because of the conflict in Mindanao. In addition, more and more people of these conflict torn areas become more vulnerable to human insecurity.

In order to address threats to individuals, it is important not to only consider regional and national development perspectives, but also to consider the perspective of human security, which focuses on individuals.

The shift of the SEDP towards human security was reflected in the rise of its development interventions that advocated people's participation and empowerment at the community level as crucial to the success of sustainable development (Ogata, 2003). It has also increased consultation and consequently its collaboration with the Bangsamoro Development Agency (BDA) and other stakeholders in the CAMM.

The JICA Study Team believes that since human security ultimately affects everyone, a common platform with roles and responsibilities of leading actors needs to be identified, especially in the CAAM.

#### 1.2 SEDP'S CONCEPT OF DEVELOPMENT AND HUMAN SECURITY

Although there has, in recent years, been an expansion of both the concept of development and that of human security, the two terms are not synonymous, but rather complementary. For the JICA Study Team, the concern with human security will focus on individual people and building communities in which everyone can live with dignity by protecting and empowering

individuals and communities that are exposed to actual or potential threats. In concrete terms, this means protecting individuals from "fears" and able to exercise their individual rights, such as right to participate in the process of governance, the right to equal development as well as the right to have access to resources and the basic necessities of life, the right to protection against poverty, the right to access basic social services as education and health, the right of protection against marginalization, protection against natural disasters, as well as ecological and environmental degradation. In so doing, people can take action to safeguard their individual security including their families and communities against any threats.

Human security bring added value to existing and future SEDP's programs. This can occur in at least four ways. First, human security can provide a clear and compelling objective for humanitarian work. Second, human security has a preventive aspect, which can stimulate forward-looking contingency planning. Third, human security emphasizes national interdependence, and can therefore mobilize additional resources and new partnerships. Fourth, human security addresses interacting threats in multiple domains, and can therefore stimulate holistic, and comprehensive threat assessment and program planning.

SEDP's concept works on human security as a people-centered approach. It has seven interconnected components, namely: economic security; food security; health security; environmental security; personal security; community security; and political security<sup>1</sup>.

# 1.2.1 Economic security

Economic security requires an assured basic income for individuals, usually from productive and remunerative work. While the economic security problem may be more serious in conflict affected area in Mindanao, concern also arises in areas not affected by the conflict as well. It is viewed that unemployment problems constitute an important factor underlying political tensions and ethnic violence.

# 1.2.2 Food security

Food security requires that people in the CAAM at all times have both physical and economic access to basic food. It is noted that availability of food is not a problem, rather the problem often is the poor distribution of food and a lack of purchasing power of the people.

# 1.2.3 Health security

Health security aims to guarantee a minimum protection from diseases and unhealthy lifestyles of the people in the CAAM. The Study believes that health is at the very center of human security, because it ties together all the other components of human security. Moreover, health of all people is fundamental to the attainment of peace and security.

# 1.2.4 Environmental security

Environmental security aims to protect people in the CAAM from the short-term and long-term ravages of nature, man-made threats in nature, and deterioration of the natural environment.

## 1.2.5 Personal security

<sup>&</sup>lt;sup>1</sup> United Nations Development Programme (UNDP), New dimensions of Human Security, New York, Oxford University Press, 1994

Personal security aims to protect people in the CAAM from physical violence, whether within their community or other areas, from violent individuals, domestic abuse, or from predatory adults. For many people, the greatest source of anxiety is crime, particularly violent crime.

# 1.2.6 Community security

Community security aims to protect people in the CAAM from the loss of traditional relationships and values and from sectarian and ethnic violence.

# 1.2.7 Political security

Political security is concerned with whether people in the CAAM live in a community that honors their basic human rights. Human rights violations are frequent during periods of political unrest.

SEDP's concept of "development and human security", thus was developed in response to the search for a more holistic approach to safeguard both the safety and prosperity of communities and people in the CAAM.

With this approach, the JICA Study Team emphasizes the community as the basic arena of human security. The first important step is the identification of target populations and community needs. By focusing attention at the community level, it can more effectively address the actual needs of the people in the CAAM. Also, the approach to infrastructure development should be complemented by institutional and capacity development of local authorities concerned, to expect the multiplying effect of its development assistance program.

# 1.3 SEDP'S PERSPECTIVE OF DEVELOPMENT AND HUMAN SECURITY

SEDP will introduce the human security in its development assistance planning and implementation in the CAMM. Relevancy of human security to development is considered in four levels simultaneously. These are: link at the level of the: a) Individual, b) Community, c) National, and d) Regional. Each level is where the problems lay, and also where the solution can also be found. Failure to do so encourages risks to accumulate and affect the next level.

The SEDP's principle behind addressing human security is inclusion, participation and empowerment at all levels. Ultimately, human security is the responsibility of all people.

With regard to development, SEDP give emphases on the benefits it brings to the people as well as the inputs obtained from community participation. It provides the foundation of basic services, and which guarantees people the right to safety and well-being. Combined with appropriate technical assistance, it can ultimately enhance people's empowerment.

The SEDP's convergence of human security approach in development is community-based; comprehensive; and cross-sectoral. *Community-based* emphasizes the community as the basic arena of human livelihood. Identifying target beneficiaries and community needs is the first important step. *Comprehensive* stands for ensuring the full use of physical infrastructure facilities. In this regard development is coupled with technical assistance and institution building to strengthen the necessary human capacities. Lastly, *cross-sectoral* means recognizing that the needs of the people in the CAAM are multi-faceted and complex.

In addition, SEDP will address the priority issues of poverty reduction, sustainable development, peace building and conflict resolution interventions.

# 1.4 APPROACHES ON DEVELOPMENT ASSISTANCE TO ACHIEVE "HUMAN SECURITY"

SEDP will ensure a holistic approach in providing projects as development assistance to the CAAM to achieve human security. To make sure its attainment, the JICA Study Team has created a mechanism that will be applied to its committed projects, such as the On-the-Spot Assistance (OSA) and Quick Impact Projects (QIP). This mechanism includes the following: regional, basic social infrastructure survey barangay profiling, in-depth barangay needs analysis, and GIS database development.

In consonance with the "seven principles of human security" it will strengthen partnership with various actors such as the MILF, BDA, local government units (LGUs), community-based organizations, NGOs, and other donor agencies by complementing each other's mandates and also by harmonizing aid works. In assisting CAAM, for example, the JICA Study Team engages with both the government for "top-down" approaches and the local communities for "bottom-up approaches."

Adopting the framework featured in the Official Development Assistance (ODA) Charter and Mid-Term Policy (August 2003), SEDP will also observe the following approaches in the course of the implementation of all its development assistance in the CAAM:

# 1.4.1 Assistance that Places People at the Core of Concerns

This assistance will eventually reaches them, and accurately identify the specific needs of their respective communities through dialogue and consultations with all the stakeholders throughout the process from policy and project formulation and implementation to monitoring and evaluation.

# 1.4.2 Assistance Strengthening Local Government Units (LGUs)

To make sure that assistance will reach the people in the CAAM directly, JICA will support improvements in the administrative capacity of LGUs. The LGUs' ability to protect its people from "want" and "fear" will be improved by reinforcing community bonds and strengthening its functions.

# 1.4.3 Assistance that Emphasizes Empowering of People

Empowering people in the CAAM is put into importance to emphasize self-reliance. To do this, and as part of QIP's social preparation activity, necessary training and services such as: Education on Project Needs, Community Organizing, Organization and Management, Financial Management for Operation and Maintenance, and Monitoring Technical Trainings for Water Supply System will be provided. Thus, eventually, it will improve institutions and policies conducive to realizing the potential of people's ability in order to foster self-help.

# 1.4.4 Assistance Giving Emphasizes to People who are Vulnerable to Threats based on the "human security" perspective.

SEDP will address comprehensively, as possible the threats confronting the people who are exposed to both "freedom from want" such as poverty, and "freedom from fear" such as fear of conflict. When assistance is provided, priority will be given to assisting people whose lives, livelihoods or dignity are currently or are highly likely to be endangered, through identifying the location of such people and their needs.

# Assistance Collaborating and Harmonizing with other Donors and International Organizations

It is a current trend to coordinate development aid with other donors and international organizations in any countries for efficient and effective assistance. For CAAM, however, it can be stressed that collaboration and harmonization with other international players should be an essential element for SEDP.

SEDP should therefore take a wise measure to collaborate some works with other donors and international organizations, including the International Monitoring Team (IMT) which Japan has participated to maximize the result of its efforts.

# Assistance within the scope of the ASEAN Security Community

Aside from benefits of people in Mindanao, SEDP also considers its assistance for the peace and stability of the whole region, which is in line with the concept of the ASEAN Security Community. The stability of Mindanao can also contribute to a positive impact on the economic facet among the ASEAN nations. BIMP-EAGA can be promoted once the whole Mindanao gains back peaceful environment.

# 1.5 SEDP'S KEY CONCEPTS IN PEACE AND CONFLICT-SENSITIVE APPROACHES TO DEVELOPMENT AND PEACEBUILDING

It is important to note that the JICA Study Team has common understanding of the terms and concepts used in the field of peace building and conflict analyses in the SERD-CAAM.

Addressing the roots of conflict (pls. refer to explanation below) in the CAAM is necessary to attain a more comprehensive and more durable "positive" peace. Such positive peace requires creating an enabling environment for open consultation and genuine dialogue among various stakeholders in the community, specially the MILF, (I agree as suggested) thus forging social values, institutions, processes and mechanisms that sustain peace.

From a developmental perspective, conflict is a natural phenomenon. (I agree as suggested) However, this does not mean that all people in the CAAM need to go through the destructive effects of conflict. For as long as conflicts can be managed without resorting to violence and abuse of basic human rights, these are healthy and could pave the way for a more dynamic and developed community. The goal of peace building and conflict prevention from the SERD-CAAM framework is to help prevent the slide to violent conflict that may take place in the course of its project preparation and implementation.

#### 1.5.1 Interventions and its types

Intervention refers to a range of development and peacebuilding activities in the CAAM.

**Development.** The JICA Study Team refers this term as long-term efforts aimed at bringing improvements in the economic, political and social status, environmental stability and quality of life of the population in the CAAM, especially the poor and disadvantaged. The SERD-CAAM definitely falls within this type of intervention.

Conflict sensitivity in development assistance can serve not only to decrease levels of violent conflict or the potential for violent conflict, but also to increase the effectiveness of the assistance. Development assistance without conflict sensitivity can inadvertently encourage conflict, and end up doing more harm than good.

**Peace building.** Aside from the provision of a framework for long-term development, the SERD-CAAM is also aimed at contributing to the consolidation of the gains already made in the peace process in Mindanao. This means that the SEDP's peace building interventions will be designed to consolidate peaceful relations and strengthen viable political, socio-economic and cultural institutions that are capable of mediating conflict. Moreover, the interventions under the SERD-CAAM should also strengthen mechanisms that will either create or support the creation of an enabling environment or the required conditions that will lead toward lasting peace.

# 1.6 CONFLICT SENSITIVITY

In the SERD-CAAM study, refers to the totality of the environment in conflict-affected and conflict-vulnerable areas in Mindanao, which follows the following guiding principles:

**Participatory** - the concept of participation has to be anchored on a people's aspirations, it has to maximize people participation at all phases in the development process.

*Informing* - all stakeholders should be informed about the SERD-CAAM's program, policies, and implementing mechanisms to be followed.

**Meeting** – The JICA Study Team will meet with various groups of people face to face, and inform them about their decisions directly.

**Consulting** – The JICA Study Team will meet with representatives of the Moro Islamic Liberation Front (MILF), Bangsamoro Development Agency (BDA), local officials, and civil society groups, and get their views or feedback about proposed plans or programs.

**Dialogue** – people are directly given the chance to meet with government authorities and functionaries as well as with service providers so they can share their views with the former before any decision could be made. Having constant dialogue with the people promotes high levels of trust thus leading to good governance, and eventually sustainable peace and development.

The last type of people participation (It should be "the people's participation")in development processes is the most ideal to use in the SERD-CAAM, especially those that are recovering from conflict. The JICA Study Team has to bear (I agree with the comment) this in mind.

In addition to engaging the stakeholders in meaningful, dialogical relationships in doing development work, there is also a need to include various issues and perceptions as part of the development agenda or even as an agenda for social discourse.

Issues and concerns may be real or perceived, but for as long as some sectors in the Mindanao population feel left out because their issues and concerns are not taken into consideration, development plans may not be implemented successfully and meaningfully.

*Impartiality in relation to actors and issues* - It is important that the JICA Study Team and service providers working in the CAAM maintain their impartiality toward various actors and issues confronting the partners and stakeholders. Impartiality is needed especially when dealing with stakeholders who hold radically opposing views about the situation that the development program will address.

In the SERD-CAAM Study, the main beneficiary is the people in CAAM although important

and leading stakeholders include the Philippine government through the Office of the Presidential Adviser on the Peace Process (OPAPP), the National Economic Development Authority (NEDA) and the Regional Planning and Development Office (RPDO) in the Autonomous Region in Muslim Mindanao (ARMM).

It is important also that the JICA Study Team has a thorough and an empathic appreciation of the conflict context in Mindanao, however, this does not necessarily mean that the Study Team is partial to BDA or to the other stakeholders. It should maintain objectivity or impartiality in its dealings with everyone involved in the project team. The Study Team members also need to have a thorough understanding of the issues involved in the conflict-affected areas in order to become objective in dealing with these issues, especially in the formulation of the SEDP for the CAAM.

**Transparency** - Transparency is required for conflict-sensitive development programs. All transactions involved in all the phases of SERD-CAAM – i.e. what steps or procedures are involved, and whether these steps have corresponding funding requirements.

Development assistance may often involve the transfer of resources to the recipient community. This in itself is a major contentious issue that can become a cause for exacerbating conflict.

To be conflict-sensitive, the SERD-CAAM development assistance program adopts mechanisms for the disclosure of information about proposed projects, their funding and logistics requirements and other important information that the stakeholders need to know.

Respect for the people's ownership and their suffering - The JICA Study Team respects the fact that the beneficiaries own the project. Unless the beneficiaries do not feel any sense of ownership in it, they will not have enough commitment to see to a project's successful implementation and maintenance. This sense of ownership is based on the fact that it is the beneficiary community, not the Study Team members, nor the JICA, who suffered during the conflict. As such, whatever development assistance is extended to them must also be their own, from project identification, conceptualization and implementation to evaluation.

Accountability for one's own actions - Accountability for one's actions refers to the willingness to take responsibility for any consequence of one's actions or decisions in the stage of Barangay Profiling, In-depth Barangay Needs Analysis (IBNA), OSA and QIP of the target barangays in the CAAM. The JICA Study Team and service providers are open to admit mistakes, faulty decision-making, or errors in judgment, and make sure that mistakes in previous phases of activities will not be repeated in the subsequent phases of interventions.

Partnerships and coordination - The JICA Study Team works in partnership with various institutions, such as Office of the Presidential Adviser on Peace Process (OPAPP), Bangsamoro Development Agency (BDA), National Economic and Development Authority (NEDA), Department of Interior and Local Government (DILG), Department of Environment and Natural Resources (DENR), Department of Agriculture (DA), Department of Agrarian Reform (DAR), Mindanao Economic Development Council (MEDCo), Autonomous Region in Muslim Mindanao (ARMM), and the JICA Philippine Office and Embassy of Japan for all its development assistance in the CAAM, through efficient and effective coordinative mechanisms. It maintains smooth, harmonious and cordial relations with each other so that lines of communications are always open between and among the different stakeholders. More importantly, since development interventions for CAAM are geared toward peace building, the JICA Study Team shares a common commitment and understanding of the rationale of the intervention.

Complementarity and coherence - One of the causes of tensions in a post-conflict development work is the confusion and rising expectations among beneficiaries due to the duplication and overlapping of projects. In this sense, a development intervention may become either a trigger for a new phase of the conflict or it can exacerbate underlying tensions that can explode into possible armed confrontations. To avoid this, JICA Study Team established criteria for the selection of OSA Target Barangays and QIP beneficiaries. Point system was applied based on the number of the development projects implemented by other donors, wherein more donor interventions has lesser points.

Interventions designed toward peace building have worked by eliciting the cooperation from all project stakeholders which fostered a more systematic integration of all aspects of development, and eventually lead to a genuine process of transformation among project beneficiaries and stakeholders.

Coherence is another important thing considered in SEDP's conflict-sensitive development interventions in the CAAM, both from its internal and external contexts.

**Timeliness** - To be effective, development interventions in the CAAM such as the OSA will be delivered in a timely manner. Quick Impact Projects (QIP) are also envisioned to be implemented at the time when it is needed or when it is appropriate. These assistance of development will be delivered in a timely manner, to avoid stakeholders' restiveness that can lead to untoward behavior, thus opening the possibility of a fresh round of hostilities.

For the SERD-CAAM, timeliness of projects can be considered in tandem with appropriate social preparation strategies to ensure greater ownership, and thereby, sustainability of development interventions.

# 1.7 CONFLICT ANALYSIS

Conflict analysis is the systematic study of the profile, causes, actors, and dynamics of conflict. It is considered in the stages of SEDP CAAM project formulation to be able to extract the problems, issues, gaps, potentials, opportunities, constraints and challenges prior to the short listing of sub-projects and plan classification. It is important to be aware of the issues and dynamics when SEDP is implemented such as the Mindanao conflict to enable them to understand better the context in which they work and their roles in that context.

It is very important to identify the appropriate focus of the conflict analysis. It is also crucial to link the level of conflict analysis (community barangay, provincial or regional) with the level of intervention (project, sector, policy). All of these different levels of conflict issues and dynamics may be distinct, but they impact or create effects on each other.

Conflict analysis will also help the JICA Study Team in:

- 1. Identifying new interventions
- 2. Conflict-sensitizing both new and pre-defined interventions (e.g. selection of areas, beneficiaries, partners, staff, time frame (planning stage)
- 3. Monitoring the intervention and in informing project set-up and day-to-day decision-making (Implementation stage)
- 4. Measuring the interaction of the interventions and the conflict dynamics in which they are situated (monitoring and evaluation stage)

# 1.8 DO NO HARM AND DO THE MAXIMUM GOOD – TOWARD PEACE AND CONFLICT-SENSITIVE DEVELOPMENT

It is important to consider that development assistance can make or break social harmony and peace in a community that is slowly recovering from the ashes of war. It is imperative therefore that development assistance programs or projects from the SERD-CAAM are analyzed on whether these can do harm to the recipients of such projects; or whether these projects provide benefits for the majority of the recipient communities, thus ensuring the "maximum good." This ensures that development dividends are not captured by an elite group nor by the officials of a sitting government but rather the greater majority of constituents who have endured long years of deprivation during armed conflict.

### 1.8.1 Peace and conflict-sensitive planning

Conflict-sensitive planning can be done to both interventions that are identified after a thorough conflict analysis, and to sensitize interventions and the stakeholders in the target communities. Conflict sensitivity is relevant to projects and programs that directly address conflict, or even to those which seek to avoid directly or indirectly exacerbating it. For SERD-CAAM projects like OSA and QIP, these need to be sensitized since these have already been identified, and implemented. Sensitizing these projects means that JICA Study Team has to consider doing regular conflict analysis and project review and monitoring.

In the case of the SEDP, the interventions have been identified through a comprehensive conflict analysis and well defined in the prepared guidelines on peace building and conflict resolution interventions. Such analysis takes into account all the causes, factors, dynamics that brought about the previous conflicts and future conflicts that may take place in a community. A careful project development strategy takes account of all these elements. This can be the key to just and peaceful outcomes of projects and programs, thereby contributing largely to the conceptualization of durable, lasting solutions to community problems.

#### 1.8.2 The key steps to conflict-sensitive planning

### 1.8.2.1 Step 1: Defining the intervention objective

The JICA Study Team uses conflict analysis tools to decide on the objectives, by looking at the vision or scenarios identified in the analysis, and by trying to understand the key causes (root, proximate and trigger), and how these may develop over time (especially during project duration). For example, if the analysis points to the lack of potable water as a major source of tension among community members in the near future, the installation of a potable water supply system can be defined as a project objective.

For the SERD-CAAM, specific projects were already identified by individual beneficiary communities although some general framework for possible development projects will have already been determined by the Study Team, in consultation with major stakeholders and representatives of beneficiary communities. In this case, conflict analysis can be used to: a) identify barangay-specific projects and b) plan the implementation of pre-conceived projects in a conflict-sensitive way. For instance, in the example given above, i.e. the need for a potable water source, the JICA Study Team will use conflict analysis to determine a) specific location of the project in the barangay; b) when the project will be implemented; c) how this will be implemented (organization and management of the project) and d) who will benefit, how many will benefit in the community (using the maxim of doing no harm and doing the maximum good) (Anderson, Mary B., 1999) from this water source. The answers to these

questions should be determined through a participatory process using prioritization of causes and goals.

In cases where there is an existing conflict in a barangay between two families or clans, as in the context of "rido" or family feud, it is important to consider the answers to the above questions. This is because the water project, if not located in an area that will promote access to the greater majority of the people in the barangay, or if it will be located in an area favorable to one party in the "rido" and not to the other, the project will cause additional tension in the community. In short, the project objective must be formulated in such a way that it will minimize any unforeseen or unintended negative impacts on the four elements of conflict (profile, actors, causes and dynamics).

Another way to get around to the identification of an objective that will be sensitive to the conflict context of the community is to relate it closely to the logical framework analysis of the proposed project. The logframe in this case needs to include not only the general objective of the project but a clear description of how the proposed project will contribute to the improvement or resolution of local conflicts (like rido, for example).

# 1.8.2.2 Step 2: Define the intervention process

The process of the intervention in the SERD-CAAM has to be conflict-sensitive. This means that all the principles of conflict-sensitive development approaches laid out in this paper must be followed. More specifically, the intervention process will lay down a transparent process of answering the following questions:

### Who are the beneficiaries of the project?

To answer this question, a set of mutually agreed criteria was drawn up by the JICA Study Team through an interactive and participatory manner.

For the reconstruction and development needs for selected barangays are assessed through the participatory field survey and analysis. The target barangays for the analysis are selected based on seven chronological steps, such as: 1) long listing; 2) security status; 3) effect of conflict; 4) the number of development projects by foreign donors; 5) accessibility; 6) geographical distribution and; 7) final selection.

OSA beneficiaries are selected using the following ten sequential steps: 1) long listing; 2) check MUST condition; 3) Check negative condition; 4) existence of similar functioning socio-economic project by foreign donors; 5) scope of beneficiary; 6) effect of conflict; 7) sustainability/capability of the community; 8) ranking; 9) site visit; and 10) final selection.

Lastly, QIPs are implemented based on the community needs as a pilot case. The projects will be divided into two phases: Phase 1 and Phase 2. The Phase 1 projects will be selected in the areas recently affected by conflicts and Phase 2 projects based on the results of the in-depth needs survey to be conducted in Task 2.

In addition, there is also the need to identify who the partners are and whether they themselves, are not a source of tensions or insecurities for the intended beneficiaries of the project.

# Where will the project be implemented (location of the project?)

The process of choosing where the project will be located is also crucial, as it requires a full recognition of the relationship between the outcomes of the needs assessment process and the

conflict analysis. As noted early on, this process will be developed with the inputs of the stakeholders of the project, and all sectors of the beneficiary community.

The following are some important questions to be addressed to make this peace and conflict-sensitive:

Does the choice of location of the project fall along the lines of division within the community (i.e. location is within the area of the elite in the community, like the barangay officials) and not in an area that is accessible to the most marginalized residents in the community.

Could the choice of location worsen an existing rido or conflict in the community? Or could it create a new one?

Is the choice of location appropriate to the outcomes of the needs assessment and the conflict analysis?

## When will the project be implemented?

The timing and length of project intervention is also as important or crucial as are the choice of beneficiaries and project location. Timeliness is a key principle in the delivery of SEDP's (I agree as suggested) development interventions. Again, in making decisions on the time and length of intervention, the main basis are the conflict analysis and the needs assessment.

Lastly, the timeline or time frame of a project (project life span) will also be analyzed.

# 1.8.2.3 Step 3: Develop Indicators

There are three main categories of conflict-sensitive indicators considered in this study, namely:

#### **Conflict indicators**

At the conflict analysis stage, the JICA Study Team, beneficiaries and all project stakeholders have come up with indicators regarding the state of conflict or peace in the area where the project will be located. These include trends in the progression of an existing conflict, or trends that are indicative of a relative peace in the community. These factors were identified early on, so that these will be used to monitor the progression of these trends or factors against an agreed timeline, so that these can be used to come up with targets through a set of contingency plans.

### **Project Indicators**

Again, these indicators have identified at the conflict analysis and needs assessment stage. These indicators monitor the effectiveness and efficiency of the project. In addition, project indicators also look at the impacts and sustainability (whether project has formulated mechanisms to sustain its gains even after projects that derive from SEDP pulls out.

#### **Interaction Indicators**

Information gathered during the conflict analysis stage are used as basis for coming up with indicators on the project planning process. These indicators are used to monitor and evaluate the interaction between the project and conflict factors.

#### 1.8.2.4 Step 4: Link project to scenarios and prepare contingency plans

JICA Study Team has come up with well-thought out contingency plans as indicated in its guidelines on peace building and conflict resolution interventions. These will allow it to

respond appropriately even under difficult circumstances. The process of these plans will allow for certain flexibility so that implementers respond appropriately to a rapidly changing conflict context and in carefully monitoring the progress of conflict-sensitive indicators.

#### 1.9 CONCLUSION

JICA's concept on human security is inclusive and people-centred. It emerges from local government units and civil society in an attempt to protect individuals and their respective communities. It is based on the notion of personal security, on the understanding that all people in the CAAM are responsible for development and must become involved in promoting policies and actions that will strengthen people's security and development.

On the other hand, JICA's developmental assistance is perceived to make a critical contribution to human security by reducing poverty, inequality and the root causes of conflict.

Development and human security can only be ensured if there is a greater involvement of all stakeholders in support of the activities of the government and donor agencies, such as the JICA. In many cases, it has been seen that local communities and civil society have taken very pro-active role in ensuring development and human security by reaching out to the poorest and the farthest. Increased participation of these stakeholders in the community levels in support of activities promoting development and human security have added an essential dimension in the area of partnership for development and human security.

The truth is, development without security is not possible; security without development is only temporary.

That is why the JICA Study Team is working to develop a Socio-Economic Development Plan in the Conflict Affected-Area in Mindanao (SEDP-CAAM), with emphasis on the relationships between development and human security needed to make policy, plan and projects cohere more effectively.

The foregoing discussion can only lead to conclude that the JICA's concept or idea that often complements peace building is development. In much development discourse, the JICA Study Team assumed that social, economic, inter-cultural, and political development will take peoples in the CAAM out of poverty, thus helping bring about more peaceful communities.

Designing development and peace building interventions to respond to the needs in the CAAM is complex and challenging, in some way particularly for the JICA's programs. These interventions can remove constraints and creating an enabling environment that supports and promotes coherence in the affected communities.

Since the SERD-CAAM is intertwined with the objective of peacebuilding, some perceptive benefits within a short time frame are important to give affected communities a stake in the peace process. Responses to needs, therefore, have to adopt innovative transitional approaches to yield perceptible benefits in the short term while efforts to carry out more reforms that are fundamental and improve conditions continue.

While interventions are being planned in the context of a conflict situation, their likely impact on the conflict situation has to be taken into careful consideration. SEDP's interventions have to address not only stated needs, but also some of the root causes of conflict if possible, avoid exacerbating tensions or triggering violent conflict and promote the strengthening of social capital.

#### 1.10 RECOMMENDATIONS

Given the scope of the topic, it is recommended that the main areas which need to be addressed are the following:

- Poverty in the CAAM remains pervasive. To make people in these communities secure
  when a crisis hits or to enable them to move out of poverty, SEDP needs to strengthen its
  efforts to ensure sustainable livelihoods and work-based security. An equitable
  distribution of resources is a key to livelihood security and can enhance people's own
  capacity and ingenuity.
- 2. Development and human security assistance is further recommended to build communities in which cultural diversity is respected and people are not discriminated against due to their cultural backgrounds. At the same time, attention to cultural diversity will be paid so that human rights and the dignity of individuals are not threatened in the name of culture.
- 3. Empower disadvantaged communities. Civil society organisations can play a fundamental role in supporting disadvantaged communities by raising awareness of rights, social justice and legal protection. They can also help communities to build networks and coalitions to promote their interests more effectively.
- 4. A network of researchers and representatives from governments and civil societies interested in human security can be formed in order to further conduct research and identify the causes and consequences of human security, make policy recommendations and advocate for human security approaches towards development.
- 5. Monitoring and evaluation tools and methodologies on human security need to be further developed and implemented. These should also include the use of new information technologies. The collection of standardized data on human security need to be systematized and coordinated among the areas of the CAAM and other areas in Mindanao.
- 6. Recommendations from this paper need to be lobbied and advocated among the governments and civil societies and shared with the media, etc. National workshops were organized in order to disseminate and further discuss the development and human security approach. Regional meetings should be organized on common concerns and issues.
- 7. One of the long-term recommendations to strengthening human security in order to hasten development efforts is to open up democratic space, allowing everybody greater opportunities to engage in the formulation and implementation of development and human security policies. Priorities in this field include:
- 8. Protection of vulnerable people in the event of internal displacement. A mechanism be adopted that will comprehensively protect the human security of the most vulnerable.

From the foregoing development and peace concepts, interventions, strategies and analysis, the following recommendations are sought in developing the SEDP.

1. Strengthen coordination and coherence with other external actors (including government and non-governmental organizations) working for development and peace, on the basis of comparative and collaborative advantage. Build on existing structures and forge

partnerships between these actors with priorities being identified by the various stakeholders at the community level.

- 2. Capacitate independent NGOs and POs, increasing opportunities for communities and diverse cultural groups to interact academically with the government at all levels. Develop and hold workshops and trainings for NGOs and POs about the relevance of the projects to be undertaken including a gender and peace analysis in their work.
- 3. Promote more development-friendly policies and coherent practices in fields beyond traditional development assistance that have major impacts on the prospects for development and peace-building;
- 4. Create a regional peace strategy that builds from the current initiatives that are taking place at the community, domestic and national levels. This would involve bringing together the stakeholders identified in the CAAM, as well as others, to allow them to both share their experiences and visions and to put together a peace and development program.
- 5. Continue to conduct research and disseminate research results about development and peace, and initiatives that are progressive.
- 6. Identify where conflicts or tensions exist between peoples, NGOs and national or international agencies and work towards mediation and resolution of these conflicts/tensions.
- 7. Develop a public education campaign for the CAAM about peace strategies, as well as the continuing need to build peace in the communities.
- 8. It is important that delivery systems, both those in the government, civil society and private sector, be provided the legislative basis for receiving sufficient resources without undue central interference in the details of prioritization.
- 9. Government (and major donor partners) should integrate JICA SEDP-CAAM into national planning, coordination, strategy and policy development efforts. Economic reform in particular needs to be fully supportive of development and peace issues.

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# **APPENDICES**

APPENDIX J

ENVIRONMENTAL AND SOCIAL CONSIDERATION

#### APPENDIX J1-1: ENVIRONMENTAL AND SOCIAL CONSIDARATION

# 1.0 SEDP Categorization

### 1.1 Categorization and its Reason

The SEDP (Master Plan) was categorized as "B" after discussions between JICA and the Study Team with reference to the JICA Guidelines for Environmental and Social Considerations. The main reasons of the categorization are:

- SEDP involves medium scale physical construction works such as road network maintenance/development, which may cause adverse impacts on environmental aspects and social aspects especially in local communities levels in CAAs,
- however, SEDP is projected to have mainly small scale projects of rehabilitation or renewal of existing infrastructure/facility, and the extent of adverse impact may small and confined.
- CAAs are the areas of ethnic, religious, and economic conflicts, and appropriate social considerations for formulation and implementation of SEDP are compulsory.

#### 1.2 Project Components for the Environmental and Social Considerations

# 1.2.1 Analysis on the Study Framework for Environmental and Social Considerations

The study aims to carry out various tasks in varying scopes, which can be classified into four components, namely: 1) Assessment of present conditions, 2) In-depth needs analysis of selected barangays, 3) Implementation of Quick Impact Projects (QIPs) and On-the-Spot Assistance (OSA), and 4) Formulation of Socio-Economic Development Plan for Conflict Affected Areas in Mindanao (SEDP-CAAM) a unique characteristic of the Study is that it contains implementation of actual project - Quick Impact Projects (QIPs) and On the Spot Assistance (OSA), and formulation of development plan – SEDP, under the same study framework.

The ultimate objective of the Study is to formulate the Socio-Economic Development Plan for the reconstruction and development of Conflict Affected Areas in Mindanao (SEDP - CAAs) in view of promoting the consolidation of peace. The SEDP as well as other outputs of the Study are expected to lead to further assistance by Japan as well as for the application by GRP, BDA and other donor agencies. Study Framework for the Environment Sector (see Table J1.2-1)

TABLE J1.2-1 Study Framework for the Environment Sector

	COMPONENTS OF THE STUDY	TASKS
1.	Assessment of the present conditions	Collection of existing data and information of conflict-affected areas in Mindanao Analysis of existing condition based on data collected Collection of additional data required for the analysis of the present condition Establishment of the database down to the barangay level by accumulating the above information
2.	In-depth needs analysis of selected barangays	Selection of barangays based on a set of mutually agreed criteria Implementation of the participatory survey Needs assessment
3.	Implementation of Quick Impact Projects (QIPs) and On the Spot Assistance (OSA)	On-the-spot assistance for small development needs identified in the course of the participatory survey in selected barangays Rehabilitation of facilities for urgent needs as a pilot case (QIP Phase 1)  Reconstruction and development through participatory approach as a pilot case (QIP Phase 2)
4.	Formulation of Socio-Economic Development Plan for Conflict Affected Areas in Mindanao (SEDP-CAAs)	Formulation of framework for urgent community rehabilitation through discussions with stakeholders  Formulation of an "Action Plan" for the urgent reconstruction which prioritizes community needs identified through the participatory survey in selected barangays  Formulation of SEDP-CAAs based on the results of the above mentioned components

Source: Inception Report, JICA Study Team 2007

#### 1.3 Requirement of Environmental and Social Considerations

Out of the four components of the Study, two components: 1) Implementation of Quick Impact Projects (QIPs) and On the Spot Assistance (OSA), and 2) Formulation of Socio-Economic Development Plan for Conflict Affected Areas in Mindanao (SEDP-CAAM), may require studies for environmental and social considerations.

Through discussions with the Environmental Management Bureau (EMB) and BDA, it was confirmed that QIP and OSA are not of significant scale thus may not be subject to Environmental Impact Assessment (EIA) by laws and regulations of GRP.

With reference to the JICA Guidelines for Environmental and Social Considerations, JICA and the Study Team decided to conduct environmental and social consideration studies mainly on SEDP. However, it was also confirmed that individual studies would be required on QIP and OSA, when the scale and the location were defined as large scale and negative impacts are foreseen.

# 1.4 Framework of Socio-Economic Development Plan for Conflict Affected Areas in Mindanao (SEDP)

SEDP was developed in to three major Plans, namely 1) Immediate Term Plan, 2) Short Term Plan, and 3) Medium Term Plan. These plans are segregated by different priority objectives and different time frames to achieve the objectives in each span, which are described in Table 2. All plans are associated with priority sector and sub-sector for development, which are indicated in Table J1.4-1.

Table J1.4-1: Priority Objectives in Each Plan

PLAN	PRIORITY OBJECTIVES	
1 27 21 (		
1. Immediate-term plan (2009-2011)	The highest priority is put on projects/program that address minimum basic needs, Most vulnerable areas and people are prioritized for implementation, Farm to market roads in urgent need are rehabilitated, improved and constructed. The lack of infrastructure support facilities has been a stumbling block to spur economic growth and development particularly in rural areas.	
2. Short-term Plan (2009-2017)	Pro poor projects /programs are prioritized to raise service levels of basic human needs in CAAs to Mindanao average,  Economic sector and sub sector are strengthened for livelihood in areas with high poverty incidence,  Environment sector are focused carefully in both urban and natural areas, in particular flood control project in central Mindanao to mitigate negative impacts of development.	
3. Mid-term Plan (2018-2023)	Human resources of local administration are developed by capacity enhancement etc. While efforts had been made towards capacity building in local governance, a major challenge in CAAs is remains the goal of institutionalizing reforms in the bureaucracy. Values orientation and skills acquisition are continuing mechanisms aimed at effecting transformation in local administration.  Pro poor projects /programs are strengthened furthermore to raise service levels of CAAs to Philippine average following Immediate Term Plan.  Facilities and equipments for local administration are targeted to be improved and modernized,  Provincial and national roads, possibly freeway networks, and sea and air ports are developed further more for international and domestic logistic system.  Metro-Kutawato, Marawi city and Pagadian city are upgraded to development poles in CAAM corridors and areas along corridors are developed to consolidate a future spatial framework of CAAs together with the development poles,	

Source: Jica Study Team, 2007

#### 1.5 ENVIRONMENTAL BASELINE OF THE PROJECT SITE

Detailed studies on socioeconomic aspects and environmental aspects on the project sites were conducted within the scope of the Study in earlier stage. This section provides key information of environmental baseline in the entire Mindanao mainly from the results of the natural condition survey with emphasis on natural resource, land use and natural disaster. Also development issue and potentials in terms of the natural resources and the environmental conditions of Mindanao are described.

#### 1.5.1 Major Natural Resources

### 1.5.1.1 Water Resources

Mindanao encompasses remarkably rich fresh water resources in its entire land that meet the requirements for agriculture, irrigation, domestic and industrial uses. Inland water bodies include Lake Lanao - the second largest lake, Lake Mainit - the 4th largest and deepest lake, the Pulangui River – the second largest river, Liguasan Marsh, - the biggest marsh in the country.

#### 1.5.1.2 Mineral Resources

Mindanao is known as the country's major deposits of metallic minerals and non-metallic mineral. Large deposits of primary copper ore are found in the province of Compostela Valley while garnierite's ores are found in Davao Oriental. Enormous supply of chromite and laterite ores can only be found in the province of Davao Oriental. The region also abounds in gold and silver deposits. Gold ores are mostly found in the province of Compostela Valley while, iron magnetite are found in the province of Davao Oriental

has the most number of non-metallic mineral deposits (limestone, shale, magnetite and chert) in large quantities. Major copper deposits were found in South Cotabato and Sultan Kudarat provinces. These deposits are regional development potentials.

# 1.5.1.3 Biological Diversity

The Philippines is a biodiverse country, and declared as a biodiversity hotspot by Conservation International (CI). Mindanao encompasses extremely diverse landscapes and biological diversity. More than 6000 species are endemic, and 56 of bird species, 47 of mammal species and 48 of amphibians are threatened. The Liguasan Marsh has the vast flood plain, approximately 228,000 hectares during rainy season and 105,000 hectares during dry season, and endowed with diverse aquatic fauna and flora. The Agusan Marsh, covering approximately 14,835 hectares, has been declared as a World Heritage Site of UNESCO. The Agusan Marsh is home to a number of rare and endangered water birds like the Oriental Darter, Purple Swamp Hen, Philippine Hawk Eagle, Spotted Imperial Pigeon and Rufouslored Kingfisher.

# 1.5.2 Major Land Use

#### 1.5.2.1 Production Land Use

Production land use in Mindanao is generally categorized as agricultural lands, fishing areas, salt bed, production forests, mining or resource extraction activities, industrial areas, tourism areas, and open land. An estimated 6 million hectares in Mindanao has been classified as production land use.

#### 1) Agricultural Land

The favorable agro-climatic conditions have made agricultural production highly viable in Mindanao. Among the traditional crops cultivated are coconut, corn, and rice. Emerging commodities that are producing more income for local growers are vegetable and fruit crops.

# 2) Fishing Area

The vast marine resource of Mindanao offers a wide variety of sea foods. General Santos City is the country's leading producer of tuna. The tuna industry of Mindanao has a very strong demand for its produce, both in the local and world market. Seaweed farming is now recognized as a potential aquaculture industry in the Mindanao for export to Asian countries.

# 3) Forestlands

Production forest covers about 3.25 million hectares of the total land area of Mindanao. These forestlands are not only devoted for production forest but also include area where annual and perennial crops are cultivated. Similarly there are also portions of the mangroves in the Mindanao which are also classified for production land uses.

# 4) Mineral Lands

The mineral resources of Mindanao which are classified into metallic to non-metallic deposits covers an aggregate area of almost 120,000 hectares. Among the 6 regions, Region XII is the most endowed with rich mineral resources spanning an area of 62,888 hectares or accounts for more than half of the mineral lands of the Mindanao. Ranking 2nd, in terms of mineral land area, is Region IX with 27,000 hectares and 3rd is Region XII with almost 19,000 hectares of mineral lands.

#### 5) Industrial Areas

There are about 6,500 hectares earmarked for industrial activities. Industrial development areas are those suitable for manufacturing/processing firms or any other industrial

establishments where the support facilities required are available or could be feasibly put up. These areas are located in PHIVIDEC Industrial Estate in Misamis Oriental (PIE-MO) which is the largest industrial estate in the country with 3,000 hectares; another 2,699 hectares is devoted for industrial development in Region IX and the Maguindanao Eco-city with 351.76 hectares land for industrial development located in Parang, Maguindanao.

#### 6) Tourism Areas

Mindanao abounds with diverse and abundant man-made and natural attractions and sociocultural resources that gives it an edge in becoming one of the best tourist destination in the country. These include the scenic spots and natural parks, beaches, diving sites, waterfalls and lagoons, historical places and cultural festivals. Also, its beautiful ecotourism sites like the Mt. Apo, Liguasan and Agusan marsh that host diverse flora and fauna can be potential earners for its tourism sector.

#### 1.5.2.2 Protection Land Use

#### 1) NIPAS Areas

National Integrated Protected Areas System (NIPAS) are defined as those areas that encompass biologically important public lands such as habitats of rare and endangered species of plants and animals. To date, some 72 sites in the 6 regions of Mindanao with an estimated area of 762,429 hectares have been declared under the NIPAS. The NIPAS consists of natural parks, protected seascapes and landscapes, natural monuments, proclaimed watersheds, and caves and cave resources.

#### 2) Non-NIPAS Areas

As in the NIPAS areas, equal importance should be accorded to non-NIPAS areas in terms of conservation and sustainable development since these areas are also experiencing various forms of exploitation and degradation. The areas initially identified outside the NIPAS are wetlands (coastal and freshwater), important bird areas, second growth forests, protected agricultural lands, buffer strips and easements, and ecotourism sites (natural/cultural heritage areas). The non-NIPAS areas in Mindanao cover an estimated area of 1.65 million hectares. The biggest non-NIPA area can be found in Region X, its 631,000 hectares contributes almost 4 percent to the total non-NIPA land area. About 184,000 hectares in Northern Mindanao has been tagged as ancestral lands and are now subject to claims by the Indigenous Peoples of the region.

# 1.5.3 Natural Disaster Prone Areas

#### **1.5.3.1** Flooding

Areas along major rivers can be considered prone to floods in Mindanao. In Region X, the rivers of Cagayan de Oro, Iponan, Alubijid, Oroquieta, Gingoog, Tudela, Plaridel, among others are highly susceptible to flooding. There is always a possibility that their floodplains will be in danger of upstream flooding, which can cause widespread, prolonged damage. Likewise, low-lying areas along the coasts are prone to tidal flooding or one brought by tidal surge due to typhoons. Coastal cities and towns in eastern and western Misamis Oriental and eastern Misamis Occidental have been identified as prone to coastal flooding. Damage may be enhanced when it is accompanied by typhoon and riverine flooding.

# 1.5.3.2 Tidal Waves/Tsunamis

Tsunamis are giant sea waves generated mostly by submarine earthquakes. Historic submarine quakes in Northern Mindanao originate from the deep Bohol Sea and the Philippine Sea. The 1923 earthquake off the Diwata Point triggered more or less a 5-meter-high tsunami and

affected the coastal site of Gingoog Bay. Other coastal areas prone to tsunami in the Mindanao are Lopez Jaena in Misamis Occidental and Magsaysay and Gingoog City in Misamis Oriental.

#### 1.5.3.3 Salt-Water Intrusion

Salt water intruded areas in the region are found along the coasts, especially those that are intensively utilized for fishpond and other aquaculture activities. Based on the data gathered, the regions that reported this type of hazard are Northern Mindanao and Davao. In Region X, 2 municipalities and 3 cities were identified to be prone to salt-water intrusion. These are the low-lying coastal areas, like in Cagayan de Oro, Oroquieta and Ozamiz, the towns of Plaridel and Baliangao in Misamis Occidental. One cause of this hazard is the over-pumping of groundwater. In 1973, four of the shallow wells that tap the shallow aquifer in Cagayan de Oro City where intruded by saline water which greatly reduced the available water supply in the area

#### 1.5.3.4 Erosion/Mass Movement

The major factor of erosion is heavy rainfall on the bare ground. River erosion is a natural, continuous and generally predictable process involving abrasion and scouring of stream banks and beds. It is the rampant illegal quarrying along rivers that usually causes shoreline and stream bank erosion. Coastal erosion is likewise a natural process, however problems arise when people build structures along the coastal zones. In Region XI, a total of 847,422 hectares or 43 percent of the total land area of the region are severely eroded. Most of these areas have slope of more than 18 percent. The provinces of Compostela Valley, Davao del Norte and Davao del Sur have the most areas experiencing severe erosion. This is attributed to the rampant illegal and inappropriate cutting of trees, kaingin (slash-and-burn), inappropriate upland farming, encroachment of squatters and settlers in upland areas and inappropriate mining activities in the areas. In Region XII, areas with high probability of severe erosion occurrence are located in Libungan, Alamada, Banisilan, Carmen, Antipas, Magpet, President Roxas, Arakan, Tulunan, and Makilala in North Cotabato; Columbio, Lutayan, Esperanza, Lebak, Kalamansig, Isulan, Ninoy Aquino and Bagumbayan in Sultan Kudarat; Tampakan, Tantangan, Banga, Tupi, Polomolok, Lake Sebu and T'boli in South Cotabato; Maasim, Malungon, Alabel, Malapatan, Glan and Maitum in Sarangani; and in General Santos City.

#### 1.6 MAJOR DEVELOPMENT POTENTIALS

Three major development potentials in terms of above stated natural resources and environmental conditions may be on agriculture, mining, and tourism industry.

#### 1.6.1 Agriculture

Mindanao is endowed with fertile soil and rich fresh water resources, which are highly suited to agriculture. Furthermore, major atmospheric disturbances are very rare in Mindanao. It is located outside the typhoon belt and climate favorable to agriculture. This interplay of Mindanao's advantages has enhanced its capacity to contribute substantially to the country's total food production, which made it as the country's leading producers of major agricultural crops for both domestic and international consumption.

### **1.6.2** Mining

Mineral resources of Mindanao may contribute regional development as well as national development. The copper-gold deposits in South Cotabato and Sultan Kudarat provinces are one of the biggest deposits in the country and are considered of world-class type with major potential for regional and national development. More interesting prospects are for copper and gold deposits with the on-going exploration for copper and its associated minerals presently

undertaken by both local and foreign companies. Small scale gold mining is currently undertaken in the provinces of Sultan Kudarat, South Cotabato and Sarangani.

#### 1.6.3 Tourism

Mindanao endow with abundant natural resources and rich cultural heritages. The tourism industry can be a potential major source of income especially for local communities. Region IX has long stretch of sand beaches, and small islands and islets, which the region hopes to develop for tourism. Region X, on the other hand, have prime ecotourism areas ideal for outdoor and water sports such as the Center for Ecological Development and Recreation, and the Cagayan de Oro River. Davao has long established a foothold on ecotourism with its mix of resort paradise (Samal Island), eco-parks (Eden Garden), and adventure spots (Mt. Apo Park). Region XII, with its natural beauty have attracted both local and foreign tourists because of Lake Sebu, an eco-cultural destination, caves and fine beaches in Sarangani and General Santos City, and other coastal areas of the region. ARMM's tourism industry, though in its nascent stage, may already be gathering interest because of Liguasan Marsh and eclectic places like Marawi City.

#### 1.7 MAJOR ISSUES RELATED TO THE DEVELOPMENT

The following are issues to be solved to utilize Mindanao's full potential for development. These issues were identified in the regional profiling conducted for SEDP.

#### 1.7.1 Continuing Threat to Peace and Security

Although armed conflict is confined to a few provinces, the impact is felt island-wide in terms of negative public image, lukewarm attitude of investors, and unstable political and economic climate. While the national government and the autonomous government have settled their differences amicably, cessationist groups not allied with the regional government are fighting their own battle for autonomy; thus the continuing war in some parts of the region. Unless full and lasting peace is achieved, any move to develop the region, and Mindanao as a whole, may be curtailed.

#### 1.7.2 Overlapping or Conflicting Land Claims

Overlapping claims of farmers, developers, mining companies and indigenous communities have been reported in all regions in Mindanao. Competing use of land also exacerbates the problem. Conversion of prime agricultural lands for non-agricultural purposes was reported in all regions. In Region X, many productive agricultural lands have been converted to non-agricultural uses. In 2004, applications for land conversion covered 1,810.44 hectares of agricultural lands. Of these, 1,386.70 hectares were approved, mostly for industrial uses.

# 1.7.3 Forest Destruction

There are a number of exploitation occurring in forests and mangroves that are destructive to some ecosystems especially in Northern Mindanao. Forest products like orchids, ferns and rattan are over harvested. Same with birds, mammals and animal products like bird's nests, guano, etc. Animals such as waterfowls and reptiles are being traded. There are also fuel woods, post or piles harvested from mangroves.

# 1.7.4 Social Issues

Mindanao is confronted with social issues such as poverty, peace and security, and signs of environmental degradation. Mindanao needs to maintain an economic growth while addressing the gaps in services and infrastructure. Consequently, more pressure will be put to their physical resources while responding to the social and economic needs of the increasing

population. It is imperative for the region to also identify measures to arrest and reverse the subsequent environmental degradation. With a burgeoning population and increasing demand for land, water, and economic opportunities, the challenge is how to make development meaningful, equitable and sustainable for all.

### 1.7.5 Untapped/Underdeveloped Tourism Industry

The natural landscape of Mindanao is ideal for ecotourism – each region having identified prime tourist spots. There are still a lot to be done to develop the tourism industry in Mindanao, and a lot of it is related to the issues already mentioned above, e.g., need for better infrastructure, security enhancement, marketing, promotion and research.

### 1.7.6 Inadequate Infrastructure and Support Facilities

Inadequate infrastructure and support facilities to improve production, such as farm-to-market roads, pre and post harvest facilities, ice factory, and cold storage, warehouse facilities, and processing plants. Poor marketing linkages/networking and inadequate market support facilities is also a concern. These facilities are also needed to strengthen link of production, processing and marketing to increase value added of products. The regions should not only be suppliers of raw materials but be able to process and produce end products as well.

# 2.0 LEGAL FRAMEWORKS OF ENVIRONMENTAL AND SOCIAL CONSIDERATIONS FOR THE PROJECT

These serve as legislative mandate on the environmental sector. These provide direction in addressing the environment and natural resources in the country.

### 2.1 Laws and Regulations Concerning the Environmental Impact Assessment (EIA)

### 2.1.1 Philippine Environmental Impact Statement System (PEISS)

In Philippines, any private or public projects or activities which are envisaged to have a negative impact on the environment are subjects of Environmental Impact Assessment (EIA) by Philippine Environmental Impact Statement System (PEISS). EIA is the preliminary analysis of the foreseeable potential impacts of the project on the environment. Aware of the possible negative effects of the implementation of industrial and other activities, government had instituted measures to encourage the use of EIA as a planning and decision making tool.

PEISS is a set of laws, regulations, administrative orders and guidelines concerned Environmental Impact Assessment (EIA). Among them some of the most important laws and guidelines are bellows:

### **Environmental Impact Statement System, Presidential Decree No. 1586 (1978)**

An act establishing and centralizing the Environmental Impact Statement (EIS) System under the National Environmental Protection Council (NEPC), which emerged with the National Pollution Control Commission (NPCC) in June 1987 to become the Environmental Management Bureau(EMB).

### Presidential Proclamation No. 2146 (1981) and No. 803(1996)

It proclaims Environmentally Critical Projects (ECPs) to have significant impacts on the quality of the environment and Environmentally Critical Areas (ECAs) as environmentally fragile areas within the scope of the EIS System.

# DENR Administrative Order No. 30 Series of 2003 (DAO 03-30), Revised Procedural Manual (2007)

It provides implementing rules and regulations of Presidential Decree No. 1586, establishing the Philippine Environmental Impact Statement System (PEISS). Also, detailed information in definitions of technical terms, procedures, related laws and regulations are described.

### 2.1.2 Environmental Impact Assessment (EIA) Process

EIA is a series of procedures consisting of Screening, Scoping, EIA Study, EIA Review, Decision-Making, and Monitoring. These procedures can be grouped into; pre-study stage (screening and scoping), EIA study stage, and the post-study stage (review, decision-making, and monitoring). The EIA study stage includes series of steps; impact identification, impact prediction, impact evaluation, impact mitigation, impact assessment and documentation. Figure J2.1-1 indicates the flow of EIA and its required actions along with phases of the project.

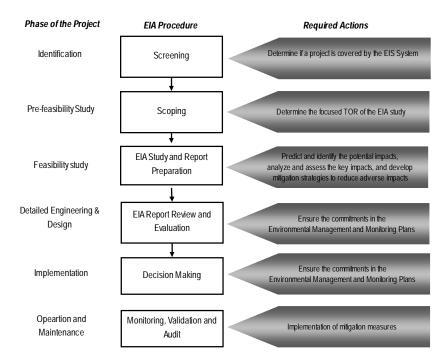


Figure J 2.1 -1 Flow of EIA

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (DAO 03-30)(2007)

### 2.1.3 Projects Covered by PEISS

Projects which have been originally declared as Environmentally Critical Projects (ECPs) or projects in Environmentally Critical Areas (ECAs) presumed to have significant impacts on the quality of the environment, and to be subjects of PEISS. The four (4) ECP project types and twelve (12) ECA categories have been declared through Proclamation No. 2146 (1981) and Proclamation No. 803 (1996), as shown in Table J2.1-1 and Table J2.1-2.

Table J2.1-1 Summary of Environmentally Critical Projects (ECPs)

MAIN CATEGORY	SUB-CATEGORY			
A. Heavy Industries	Non-Ferrous Metal Industries Iron and Steel Mills Petroleum and Petrochemical Industries Smelting Plants			
B. Resource Extractive Industries	Major Mining and Quarrying Projects Forestry Projects Dikes for/and Fishpond Development Projects			
C. Infrastructures	Major Dams Major Power Plants Major Reclamation Projects Major Roads and Bridges			
D. Golf Courses				

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (DAO 03-30)(2007)

Table J2.1-2 Summary of Environmentally Critical Areas (ECAs)

ECA CATEGORIES	EXAMPLES			
Areas declared by law as national parks, watershed reserves, wildlife preserves, and sanctuaries	Areas of the National Integrated Protected Areas System (NIPAS) Act			
Areas set aside as aesthetic, potential tourist spots	Areas declared and reserved by the Department of Tourism or other authorities for tourism development			
Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora and fauna)	Areas inhabited by indeterminate species, threatened species, rare species, endangered species			
Areas of unique historic, archeological, geological, or scientific interests	National historical landmarks, geological monuments, paleontological and anthropological reservations as designated or determined by the National Historical Institute, National Museum, National Commission for Culture and the Arts, National Commission on Geological Sciences, and other authorities			
Areas which are traditionally occupied by cultural communities or tribes	Ancestral lands maintained by the PANAMIN for national minorities Areas that are occupied or claimed as ancestral lands or ancestral domains by indigenous communities			
Areas frequently visited and or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.	Areas frequently visited or hard-hit by typhoons Areas frequently visited or hard-hit by tsunamis Areas frequently visited or hard hit by earthquakes Storm surge-prone areas Flood-prone areas Areas prone to volcanic activities Areas located along fault lines or within fault zones Drought-prone areas			
Areas with critical slope	Lands with slope of 50% or more Alienable and disposable forest lands and unclassified forests			
Areas classified as prime agricultural lands	Irrigated and irrigable areas and other areas mapped under the Network of Protected Areas for Agriculture (NPAA) of the Bureau of Soils and Water Management (BSWM)			
Recharged areas of aquifers	Areas of sources of water replenishment			
Water bodies	Areas that are tapped for domestic purposes Areas which support wildlife and fishery activities			
Mangrove Areas	Tidal areas covered by salt-tolerant, intertidal tree species Areas declared as mangrove swamp forest reserves			
L. Coral Reefs	Areas characterized by the assemblage of different types of marine plants and organisms  Areas identified by local sources such as the UP-Marine Sciences Institute, DENR-Coastal Environment Program to be rich in corals.			

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (DAO 03-30)(2007)

### 2.1.4 Responsible Government Institutions for PEISS

The review and supervision of PEISS are conducted by the Environmental Management Bureau (EMB), Department of Environment and Natural Resources (DENR). Department of Environment and Natural Resources (DENR) is the government entity which is mandated to handle issues related to following five tasks as described in the legislations concerned.

- Assure the availability and sustainability of the country's natural resources through judicious use and systematic restoration or replacement, whenever possible;
- Increase the productivity of natural resources in order to meet the demands for forest, mineral, and land resources of a growing population;
- Enhance the contribution of natural resources for achieving national economic and social development;
- Promote equitable access to natural resources by the different sectors of the population;
- Conserve specific terrestrial and marine areas representative of the Philippine natural and cultural heritage for present and future generations.

Under the framework of PEISS, EMB is responsible for the issuance of decision making documents such as Environmental Compliance Certificate (ECC), Certificate of Non-Coverage (CNC) and Denial Letter. For the programs and projects in SERD-CAAs, EMB Regional Offices in respective regions are primary responsible for the consultation and supervision of development projects.

### 2.1.5 Required Documents by PEISS

To help identifying required documents under PEISS for consultation and decision making by EMB - DENR, projects are classified into five major groups as described in Table J2.1-3.

**Table J2.1-3 Project Groups for EIA under PEISS** 

Crown I	ECPs in either ECAs or NECAs (Environmentally Critical Projects in either Environmentally
Group I	Critical Areas or Non-Environmentally Critical Areas)
Group II	NECPs in ECAs (Non Environmentally Critical Projects in Environmentally Critical Areas)
Group III	NECPs in NECAs (Non-Environmentally Critical Projects in Non-Environmentally Critical Areas
Group IV	Co-located Projects either ECA or NECA
Group V	Unclassified Projects

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (DAO 03-30)(2007)

EIA-covered projects in Groups I, II and IV are required either of follows depending on project type, location, magnitude of potential impacts and project threshold. For non-covered projects in Groups II and III, the PDR is required.

- Environmental Impact Statement (EIS),
- Programmatic EIS (PEIS),
- Initial Environmental Examination Report (IEER),
- IEE Checklist (IEEC), or
- Project Description Report (PDR).

All documents should be prepared by the project proponent to be submitted to the EMB Central Office or the Environmental Impact Assessment Division in respective EMB Regional Office. The outcome of the EIA Process within PEISS administered by the EMB-DENR is the issuance of decision documents. Decision documents may either be an ECC, Certificate of Non-Coverage (CNC) or a Denial Letter, described as follows. The PDR is important for the implementation of Group II and Group III projects, which do not envisage negative impact, to secure eventual issuance of a CNC.

### **Environmental Compliance Certificate (ECC)**

- An ECC is issued as a certificate of Environmental Compliance Commitment to which the proponent conforms with after DENR-EMB explains the ECC conditions.
- Certificate of Non-Coverage (CNC)
- A CNC certifies that based on the submitted Project Description Report, the project is not covered by the EIS System and is not required to secure an ECC.
- Denial Letter
- A Denial Letter is issued for disapproval of application.
- It shall contain an explanation for the disapproval and guidance on how the application can be improved to a level of acceptability in the EIA process. For Group I projects, ECC application documents need to be submitted to EMB central office to have decisions by EMB Director or DENR Secretary. While, ECC application for Group II need to be submitted to EMB Regional Office to have decision making by the EMB Regional Director. Table J2.1-4 summarizes Project Groups, EIA Report Types, Decision Documents, Deciding Authorities and Processing Duration described in the Revised Procedural Manual of EMB.

Table J2.1-4 Summary of Project Groups, EIA Report Types, Decision Documents, Deciding Authorities and Processing Duration

PROJECT GROUPS	DOCUMENTS REQUIRED FOR ECC/CNC APPLICATION	DECISION DOCUMENT	DECIDING AUTHORITY	MAX PROCESSING DURATION
I: Environmentally Critical Projects (ECPs) in either Environmentally Critical Area (ECA) or Non- Environmentally Critical Area (NECA)	Environmentally Impact Statement (EIS)	ECC	EMB Director / DENR Secretary	120 days (Working Days)
II: Non-Environmentally Critical Projects (NECPs) in Environmentally Critical Area (ECA)	Environmentally Impact Statements (EIS) / Initial Environmental Examination Report (IEER / Initial Environmental Examination Checklist (IEEC) / Project Description Report (PDR)	ECC	EMB RO Director	15-60 days (Working Days)
III: Non-Environmentally Critical Projects (NECPs) in Non-Environmentally Critical Area (NECA)	Project Description Report (PDR)	CNC	EMB Director / EMB RO Director	15 days (Working Days)
IV: Co-located Projects	Programmatic Environmental Impact Statement PEIS)	ECC	DENR Secretary	180 Days (Working Days)
V: Unclassified Projects	Project Description Report		EMB Director / DENR Secretary / EMB RO Director	15 days (Working Days)

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (DAO 03-30) (2007)

### 2.1.6 Outlines of Required Documents by PEISS

As previously discussed, for the projects which will be indicated in SEDP, depending on project type, location, magnitude of potential impacts and project threshold, either EIS, IEER or PDR will be required. Followings are outlines of the required documents from Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003.

### (1) EIS Outline (Maximum of about 250 pages)

Project Fact Sheet Table of Contents

Executive Summary

- 1) Brief Project Description
- 2) Brief Summary of Project's EIA Process
- 3) Summary of Baseline Characterization
- 4) Summary of Impact Assessment and Environmental Management Plan
- 5) Summary of Environmental Monitoring Plan
- 6) EMF and EGF Commitments

DRAFT MAIN EIS

- 1. BASIC PROJECT INFORMATION
- 2. DESCRIPTION OF THE PROJECT'S EIA PROCESS
- 2.1. Terms of Reference of the EIA Study
- 2.2. EIA Team
- 2.3. EIA Study Schedule
- 2.4. EIA Study Area
- 2.5. EIA Methodology
- 2.6. Public Participation
- 3. PROJECT DESCRIPTION
- 3.1. Project Location and Area
- 3.2. Project Rationale
- 3.3. Project Alternatives
- 3.4. Project Development Plan, Process/Technology Options and Project Components
- 3.5. Description of Project Phases (Activities/Environmental Aspects, Associated Wastes and Built-in Pollution Control Measures)
- 3.5.1. Pre-construction/ Pre-operational phase
- 3.5.2. Construction/Development phase
- 3.5.3. Operational phase
- 3.5.4. Abandonment phase
- 3.6. Manpower Requirements
- 3.7. Project Cost
- 3.8. Project Duration and Schedule
- 4. BASELINE ENVIRONMENTAL CONDITIONS, IMPACT ASSESSMENT AND MITIGATION
- 4.1. The Land (Discuss only relevant modules)
- 4.1.1. Land Use and Classification
- 4.1.2. Pedology
- 4.1.3. Geology and Geomorphology
- 4.1.4. Terrestrial Biology
- 4.2. The Water (Discuss only relevant modules)
- 4.3. The Air (Discuss only relevant modules)
- 4.4. The People
- 5. ENVIRONMENTAL RISK ASSESSMENT (WHEN APPLICABLE)
- 6. ENVIRONMENTAL MANAGEMENT PLAN
- 6.1. Impacts Management Plan
- 6.2. Social Development Framework
- 6.3. IEC Framework
- 6.4. Emergency Response Policy and Generic Guidelines
- 6.5. Abandonment /Decommissioning /Rehabilitation Policies and Generic Guidelines
- 6.6. Environmental Monitoring Plan
- 6.7. Institutional Plan for EMP Implementation
- 7. BIBLIOGRAPHY/REFERENCES
- 8. ANNEXES
- 8.1. Scoping Checklist
- 8.2. Original Sworn Accountability Statement of Proponent
- 8.3. Original Sworn Accountability Statement of Key EIS Consultants
- 8.4. Proof of Public Participation
- 8.5. Baseline Study Support Information
- 8.6. Impact Assessment and EMP Support Information

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (DAO 03-30)(2007)

### (2) IEER Outline (Maximum of about 75 pages)

Project Fact Sheet

Table of Contents

**Executive Summary** 

- 1) Brief Project Description
- 2) Brief Summary of Project's IEE Process
- 3) Summary of Baseline Characterization
- 4) Summary of Impact Assessment and Environmental Management Plan
- 5) Summary of Environmental Monitoring Plan

DRAFT MAIN IEER

- 1. BASIC PROJECT INFORMATION
- 2. DESCRIPTION OF THE PROJECT'S IEE PROCESS -
- 2.1. Terms of Reference of the IEE Study (if scoping was done with EMB)
- 2.2. IEE Team
- 2.3. IEE Study Schedule
- 2.4. IEE Study Area
- 2.5. IEE Methodology
- 3. PROJECT DESCRIPTION
- 3.1. Project Location, Area, ECA category (if applicable)
- 3.2. Project Rationale
- 3.3. Project Development Plan, Process/Technology and Project Components
- 3.4. Description of Project Phases (Activities/Environmental Aspects, Associated Wastes and Built-in Pollution Control Measures)
- 3.4.1. Pre-construction/ Pre-operational phase
- 3.4.2. Construction/Development phase
- 3.4.3. Operational phase
- 3.4.4. Abandonment phase
- 3.5. Manpower Requirements
- 3.6. Project Cost
- 3.7. Project Duration and Schedule
- 4. BASELINE ENVIRONMENTAL CONDITIONS, IMPACT ASSESSMENT AND MITIGATION
- 4.1. The Land (Discuss only relevant modules or modules likely to be affected by project impacts) Land use, Pedology, Geology, Geomorphology, Terrestrial biology
- 4.2. The Water (Discuss only relevant modules or modules likely to be affected by project impacts Hydrology, Oceanography, Water Quality, Freshwater Biology, Marine Biology
- 4.3. The Air ((Discuss only relevant modules or modules likely to be affected by project impacts Meteorology, Air Quality, Noise
- 4.4. The People
- 5. ENVIRONMENTAL MANAGEMENT PLAN
- 5.1. Impacts Management Plan
- 5.2. Emergency Response Policy and Generic Guidelines (if applicable)
- 5.3. Environmental Monitoring Plan
- 5.4. Institutional Plan for EMP Implementation
- 6. BIBLIOGRAPHY/REFERENCES
- 7. ANNEXES
- 7.1. Scoping Checklist (optional, since Scoping is not required for IEEs)
- 7.2. Original Sworn Accountability Statement of Proponent
- 7.3. Original Sworn Accountability Statement of IEE Preparer
- 7.4. Baseline Study Support Information

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (DAO 03-30)(2007)

### (3) PDR Outline (maximum of about 30 pages)

Table of Contents (1 page)

- 1. BASIC INFORMATION ON PROJECT and PROPONENT (1 page)
- 2. PROJECT DESCRIPTION (15 pages)
- 2.1. Project Location and Area (at the minimum, shown in an official NAMRIA topographic or nautical map (whichever type is applicable and of appropriate scale)
- 2.2. Project Rationale (need for & purpose of the project., particularly environmental enhancement or mitigation purpose of the project)
- 2.3. Project Development Plan, Process and Components
- 2.4. Description of Project Phases
- 2.4.1. Pre-Construction/ Pre-Development phase
- 2.4.2. Construction/Development phase
- 2.4.3. Operational phase
- 2.4.4. Abandonment phase
- 2.5. Project Emissions/Effluent/ Hazardous Waste/Solid Waste/Other Wastes (Present integrated summary of types of wastes)
- 2.7. Project Cost
- 2.8. Project Duration and Schedule
- 3. OVERVIEW/GENERIC DESCRIPTION OF THE BASELINE ENVIRONMENT (4 pages on land, water, air, people)
- 4. ENVIRONMENTAL MANAGEMENT PLAN (3 pages focused only on the residual management scheme on the relevant land, water air & people module)
- 5. ANNEXES (3-6 pages)
- 5.1 Original Sworn Accountability Statement of Proponent
- 5.2 Photos or plates of proposed project site, cumulative/residual impact areas and surrounding communities

Source: Revised Procedural Manual for DENR Administrative Order No. 30 Series of 2003 (DAO 03-30)(2007)

### 2.1.7 Role of LGUs and BDA in PEISS

By PEISS, LGUs are expected to involve consultations during entire EIA processes for inputs on the environmental conditions of the location of proposed projects. Also, LGUs are expected to check the compatibility of proposed project with policies and development plans of their administration. The DENR Memorandum Circular No.2008-08(2008), clarifies the roles of LGUs in PEISS, and states that LGUs are expected to participate the following stages of the EIA process:

- during the scoping sessions where the scopes of the EIA study which is a requirement for ECC applications is defined,
- during the conduct of the EIA study to provide important data needed for the study,
   and
- during public hearing or consultations where they will be expected to raise issues and provide critical inputs in the review of the EIA report.

Although, the endorsement of LGUs or BDA on the proposed project is not mandatory in the processing of the ECC application, the above DENR Memorandum Circular said that it should inevitably be required and subsumed under the local government's permitting requirements. Hence LGUs and BDA are expected to examine permitting requirements in the results of the EIA and recommendations in the ECC for the proposed project.

### 2.1.7.1 Laws and Regulations Concerning the Environmental Standards

For the implementation of projects in SEDP, PEISS states obligations to strictly comply with all the environmental laws, regulations and standards, which were established by GRP. Followings are major environmental laws and regulations, which may concern the Project. When project type, location, scale, and magnitude of potential impacts are clarified, other concerning laws and regulation should be identified to clarify the specific study requirements.

### **Environment Code, Presidential Decree No. 1152**

Known as the Philippine Environment Code, it launches a comprehensive program on environmental protection and management. It also provides for air, water quality, land use, natural resources and waste management for fisheries and aquatic resources; wildlife; forestry and soil conservation; flood control and natural calamities; energy development; conservation and utilization of surface and ground water and mineral resources.

### Water Code, Presidential Decree No. 1067

A decree instituting a water code which revises and consolidates the laws governing the ownership, appropriation, utilization, exploitation, development, conservation and protection of water resources.

### Clean Water Act, Republic Act 9275

An Act which aims to protect the country's water bodies from pollution of all possible sources (industrial, commercial, agriculture and household activities). It provides for a comprehensive and integrated strategy to prevent and minimize pollution through a multi-sectoral and participatory approach involving all the stakeholders.

### Clean Air Act of 1999, Republic Act No. 8749

An Act which lays down policies to prevent and control air pollution. The act sets standards of exhaust gas from vehicles, manufacturing plants and so on to follow. All potential source of air pollution must comply with the provisions of the Act. As such, all emissions must be with in the air quality standards set under the law. It also imposes the appropriate punishments for violators of the law.

### Ecological Solid Waste Management Act, Republic Act No. 9003 (2000)

An Act providing for an ecological solid waste management program, creating the necessary institutional mechanisms and incentives, declaring certain acts prohibited and providing penalties, appropriating funds therefore, and for other purposes.

### Pollution Control Law, Presidential Decree No. 984

An Act that serves as the foundation for managing industrial activities impacting air and water quality. It empowers the DENR to impose ex-parte cease and desist orders (CDO) on the grounds of immediate threat to life, public health, safety or welfare, or to animal or plant life when wastes or discharges exceed the normal.

### Forestry Reform Code, Presidential Decree No. 705

The Forestry Reform Code of the Philippines recognizes that there is an urgent need for proper classification; management and utilization of the lands of the public domain to maximize their productivity to meet the demands of the increasing population of the Philippines. It surmises that to achieve the above purpose, it is necessary to reassess the multiple uses of forest lands and resources before allowing any utilization to optimize the benefits that can be derived. It also emphasizes not only the utilization but more so on the protection, rehabilitation and development of forest lands to ensure the continuity of their productive condition.

### National Integrated Protected Areas System (NIPAS), Republic Act No. 7586

An Act that aims to protect and maintain the natural biological and physical diversities of the environment notably on areas with biologically unique features to sustain human life and development as well as plant and animal life. It establishes a comprehensive system of integrated protected areas within the classification of national park as provided for in the

Constitution to secure for the Filipino people of present and future generations the perpetual existence of all native plants and animals. It encompasses outstandingly remarkable areas and biologically important public lands that are habitants of rare and endangered species of plants and animals, bio-geographic zones and related ecosystems, whether terrestrial, wetland or marine.

# The Regional Sustainable Forest Management Act of 2003 of the ARMM, Muslim Mindanao Autonomy Act No. 161

This is an Act declared by the Regional Legislative Assembly of ARMM, which provides policy of the ARMM government to protect and conserve forest resources within legislative ARMM boundary. The Act declares forest management through Islamic principles such as *Shari'ah* (God's commandments often translated as Islamic Law) and *Adat*(customs and traditions practiced by Bangsamoro people).

# 2.1.8 Laws and Regulations Concerning Social Development, Land Acquisition and Involuntary Resettlement

# An Act to Facilitate the Acquisition of Right-of-Way, Site or Location for National Government Infrastructure Projects and for other Purposes, Republic Act 8974 (2000)

It declares that private property shall not be taken for public use without just compensation. Towards this end, the State shall ensure that owners of real property acquired for national government infrastructure projects are promptly paid just compensation. The Act also provides Guidelines for Expropriation Proceedings including compensation of the property which shall be appraised by determining the market values of lands and improvements. The Sec. 8 states that the implementing agency shall take into account the ecological and environmental impact of the project.

### The Agricultural Land Reform Code, Republic Act 6389 (1971)

The Act amended the agricultural land reform code. The agricultural lessee shall be entitled to disturbance compensation equivalent to five times the average of the gross harvests on his landholding during the last five preceding calendar years.

### **Executive Order 1035 (1985)**

The order provides the procedures and guidelines for the acquisition of private properties or rights for development projects by the government, including government-owned or controlled corporations and state colleges and universities. Acquisition shall be done either through negotiated sale or expropriation. The order gives authority to the government implementing agency/instrumentality concerned to immediately institute expropriation proceedings if the parties fail to agree in negotiation of the sale. The just compensation to be paid for the property acquired through expropriation shall be in accordance with the provisions of P.D. No. 1533, which.

### Presidential Decree No. 1533(1978)

It establishes a uniform basis for determining just compensation and the amount of deposit for immediate possession of the property involved in eminent domain proceedings.

### Urban Development and Housing Act, Republic Act 7279 (1992)

This Act provides policy to undertake, in cooperation with the private sector, a comprehensive and continuing Urban Development and Housing Program. The program is aimed to uplift the conditions of the underprivileged and homeless citizens in urban areas and in resettlement

areas by making available to them decent housing at affordable cost, basic services, and employment opportunities. The Program covers lands in urban and urbanizable areas, including existing areas for priority development, zonal improvement sites, slum improvement and resettlement sites. Under this Act, eviction and demolition are allowed in danger areas such as railroad tracks, garbage dumps, riverbanks, shorelines, waterways, and other public places such as sidewalks, roads, parks, and playgrounds.

### Indigenous Peoples Rights Act (IPRA), Republic Act No. 8371 (1997)

The IPRA enforces the Constitution's mandate for the State to "recognize and promote the right of indigenous peoples within the framework of national unity and development," and "protect the right of indigenous cultural communities to their ancestral lands to ensure their economic, social and cultural well-being." These include the right to ancestral domain and lands; right to self-governance and empowerment; social justice and human rights; and the right to cultural integrity.

### 3.0 PROVISIONAL SCOPING

SEDP does not specify concrete project list to be implemented but provides priority sectors and sub sectors. Yet in the analysis stage on the results of IBNA, Barangay Profiling and the Matrixes of the High Priority Projects from LGUs and Line Agencies, potential project scopes were discussed. For provisional scoping this section will discuss potential impacts.

# 3.1 IMMEDIATE TERM PLAN PROSPECTIVE SECTORS AND POTENTIAL PROJECTS

Immediate Plan addresses immediate rehabilitation at the community level in CAAs, and discusses concrete project scopes of various categories based on the results of IBNA and Barangay Profiling. For the analysis purpose of potential impact, Table 8 summarizes the assumed list of model projects for Immediate Plan.

Projects discussed in the Immediate Plan formulation have different project scopes and various characteristics. The nature of the projects varies greatly from training to provision of equipment, construction of road/building, and consequently; expected impacts also varies significantly. Table 8 also indicates prospective impact class in each project.

Category A applies small to medium scale infrastructure or facility development, which might have severe negative impacts. Category B applies very small infrastructure or facility development, which might have negative impacts in certain level but not significant. Category C applies corresponding projects do not plan infrastructure or facility development, and impact is not expected, or extent of impact is unknown. C projects are not subjects of EIA by PEISS, while A and B projects are required PEISS procedures.

Category A : Serious impact is expected

Category B : Some Impacts /Unknown impacts are expected.

Category C : Impact is not expected/Extent of impact is unknown (impacts depend

on the scale and extent which are not specified yet)

Table J3.1-1 Potential Scopes and their Impact Class for Action Plan

NO.		POTENTIAL SCOPES	PROSPECTED IMPACT CLASS
1	Transportation	Road (Barangay Road, Farm to Market Road)	В
		Bridge (Box culvert, Hanging bridge)	В
		Transportation Equipment Purchase (Pump Boat, Bus)	С
2	Basic Living Condition	Water System (Spring Improvement, Hand Pump)	В
		Electrification (Solar Power, Generator Provision)	С
		Public Toilet	В
		Housing	В
		Waste Management (Garbage Disposal)	В
3	Education	School Building (New Construction, Renovation)	В
		Madrasah (New Construction, Renovation, Additional)	В
		Day Care Center	В
		Educational Support (Scholarship)	С
		School Dormitory	В
		School Facility Purchase	С
4	Health	Health Center	В
		Medical & Health Care Facilities & Services	С
		Barangay Pharmacy	С
		Birthing Clinic	В
5	Agriculture	Farming Facilities/Equipment	С
		Irrigation /Controlled Dam	В
6	Community Empowerment	Livelihood (Live stocks, Poultry)	С
		Capacity Building (Literacy Program, Training)	С
7	Culture/Sports	Multi-Purpose Center (New Construction, Renovation)	В
		Sports Facilities(Basketball Court/Gymnasium)	В
		Barangay Plaza	В
		Garden Facilities	С
8	Water Control	Drainage (Flood Control)	В
		Dike (Lake wall, River wall)	В
9	Fisheries	Fishing Equipment/Facilities (Boat, Gear, Net)	С
		Port/Boulevard/Fish Landing	В
10	Business/Tourism	Public Market Building with Terminal	В
		Tourist Spot Development	В
		Guest House	В
		Job Opportunity	C
11	Security/ Emergency	Fencing (School Fence, Barangay Fence)	В
		Emergency Facility	С
		Evacuation Center	В
		Fire Extinguisher	С
12	Religious	Mosque	В
		Church	В
13	Others	Barangay Hall	В
		Barangay Cemetery	В
		Waiting shed	В

Table J3.1-1 is a Provisional Scoping Table for Immediate Term Plan, which indicates the check items and its prospective impacts for the potential project scopes described in Table J3.1-2. The review of possible adverse impacts is derived based on literature survey, key informant interviews, and field observation on QIP Phase 1 sites.

Table J3.1-2 Provisional Scoping for Immediate Term Plan

					Project Scopes										
	Check Items		Transportation	Basic Living Condition	Education	Health	Agriculture	Community Empowerment	Culture/Sports	Water Control	Fisheries	Business/Tourism	Security/ Emergency	Religious	Others
	1	Involuntary Resettlement	В	С	С	С	В		С		В	В		С	С
	2	Local economy such as employment and livelihood, etc.	С				С			C	C	С		С	С
	3	Land use and utilization of local resources.	С	С	С	С	С				С	С		С	С
+=	4	Social institutions such as social infrastructure and local decision making institutions.										С		С	С
Social Environment	5	Existing local infrastructures and services	С		С		С				С	С		С	С
nviro	6	The poor, indigenous and ethnic groups												С	С
cial E	7	Mis-distribution of benefits and damages	С		С		С				С	С			
Š	8	Cultural heritage/ Local landscape	С												
	9	Local conflicts of interest	С							С	С	С			
	10	Water usage or water right and rights of commons	С							С		С			
	11			В		В				С	С	С			
	12	Hazards, infectious diseases	С	В		В				С		С			
	13	Topography and geographical features	В				С		С	С	С	С			
	14	Soil erosion	В				С		С	С	С				
nent	15	Ground water					С			С		С			
vironr	16	Hydrogical situation					С				С				
Natural Environment	17	Coastal zone									С				
Vatur	18	Ecosystems/ Wildlife/ Biodiversity	С							С	С				
_	19	Protected Area	С												
	20	Land scapes	С												
	21	Air pollution/ Global warming gas	В												
	22	Water pollution	В	В							С				
zards	23	Soil contamination	В	В											
ic Ha	24	Waste	В	В		С						С			
Pollutions & Public Hazards	25	Noise & Vibration	В						С						
ons &	26	Ground subsidence													
olluti	27	Offensive odor													
т.	28	Bottom sediment								С					
	29	Accidents	В						С						

### 3.2 Short Term and Medium Term Plan

### Prospective Sectors and Potential Projects for Short and Midterm Plan

Table summarizes potential projects which were discussed in Matrixes of the High Priority Projects from LGUs and line agencies. Projects discussed in Short and Medium Term Plan has various characteristics and different types. Table J3.2-1(a) indicates potential impact class in each project scope.

Category A applies small to medium scale infrastructure or facility development, which might have negative impacts in some extents. Category B applies very small infrastructure or facility development, which might not have negative impacts. Category C applies corresponding projects do not contain infrastructure or facility development, and impact is not expected, or extent of impact is unknown. C projects are not subjects of EIA by PEISS.

Table J3.2-1(a) Potential Projects Scope and their Impact Class for Short and Medium
Term Plan

SECTORS	SUBSECTORS	EXAMPLES OF PROJECT SCOPES	PROSPECTED IMPACT CLASS
		Construction of Solar Dryers and Warehouse	B
		Provision of Post Harvest Facilities	C
		Purchase of Hand Tractors and Thresher	Č
		Acquisition of Farm Equipment	Č
	Agriculture/Fishery	Construction Of Irrigation Canal	B
		Construction of Communal Irrigation System	В
Economic		Training for Seaweeds Farming and Fishing	Č
		Purchase of Fishing & Seaweeds Farming Equipments	Č
		Development of Income Generation Source at Community Level	C
		Micro Financial Assistance	Č
	Livelihood	Livelihood Trainings/Seminars	Č
		Provision of Small Business Equipments & Tools	Č
		Construction of Municipal Trade Center	В
	m 1	Construction of Public Market	В
	Trade	Construction of Fish Landing Center	В
		Construction Livestock Trading Center	В
		Institutional Strengthening & Capability Building for	
		Environmental Conservation	C
		Information and Education Campaign on Forest and Fishery Laws	
		and Ordinances	С
		Community Based Reforestation Project	
		Community Forestation and Tree Nursery Project	С
		Preparation of Forest Land Use Plan (FLUP) Forest Management	С
		Plan	C
		Training on Upland Ecosystem Management	С
	Wetland/Forest/Coastal	Nursery Establishment and Management	В
Environment	Conservation and	Environmental Awareness and Education Project	С
	Protection	Agro-Forestry Development	С
		Survey and Delineation of Watershed Area	С
		Conservation and Rehabilitation of Marsh Ecosystem	С
		Management of Marine Sanctuary	С
		Coastal Management, Information, Education & Communication	C
		Campaign	
		Formulation of Coastal Resource Development and Management	С
		Plan	С
		Coastal Resource Assessment	С
		Planting of Mangrooves	

A: Serious adverse impact is expected.

B: Some adverse Impact /Unknown impact is expected but not significant.

C: No adverse Impact is expected. (Examination is needed, or impacts may become clear as the project design defined)

Table J3.2-1(b) Potential Projects Scope and their Impact Class for Short/Medium Term Plan

SECTORS	SUBSECTORS	EXAMPLES OF PROJECT SCOPES	PROSPECTED IMPACT CLASS
Environment	Waste Management	Community Waste Management Program	С
		Development of Dump Site	В
		Establishment of Material Recovery Facility	В
		Formulation of Sewerage and Drainage Protection Plan	C
		Construction of Garbage Pit	В
		Purchase of Garbage Truck	C
		Solid Waste Management Program	C
		Barangay Environmental Sanitary Project	С
	Flood Control	Construction/Rehabilitation Of Flood Protection Dike	В
		Construction Of Flood Control And Drainage Facilities	В
		Reforestation/Rehabilitation Of Watershed	C
		Construction Of Concrete Drainage System	В
		Construction Of Rives\R Control Facilities	В
Local	Capacity Building	Training Workshop on Community Based Development Planning	С
Governance		Training Workshop on Legislation, Parliamentary Procedures,	
Administration		Ordinances	С
		Preparation of Municipal Economic Enterprise Development Plan	С
		Establishment of MIS	C
		Procurement of Computer Sets, Services Vehicle	C
		Training Workshop on IT	C
		Local Legislative Enhancement	C
		Effective Local Legislation Training Workshop	С
	Barangay Level	Formulation of Barangay Development Plan	C
	Enhancement	Construction of Multipurpose Building	В
		Construction of Municipality/Tribal Hall	В
		Construction of Police Station	В
		Construction of One Unit Training Center Building	В
	Tax Collection	Training on Taxing Power	C
		Revenue/Taxation Mobilization Project	C
Infrastructure	Roads	Rehabilitation of Farm Land Access Roads	В
		Construction of Farm to Market Roads	В
		Concreting of Municipality Streets	В
		Construction of Coast Way	В
	Bridges	Construction of Footbridge	В
		Construction of Single Lane Bridge	В
		Construction of Hanging Bridge	В
	Energy	Construction of Small Scale Hydro-Power Plant	В
		Construction of Small Scale Windmill	В
		Provision of Solar Home Power System	С

A: Serious adverse impact is expected.

Table J3.2-1(b) is a Provisional Scoping Table for Short Term and Medium Term Plan, which indicates the check items and its prospective impacts for the proposed projects described in Table J3.2-3. The review of possible adverse impacts is derived based on literature survey, key informant interviews, and field observation on QIP Phase 1 sites.

B: Some adverse Impact /Unknown impact is expected but not significant.

C: No adverse Impact is expected. (Examination is needed, or impacts may become clear as the project design defined)

Table J3.2-3 Provisional Scoping for Short/Mid Term Plan

				Project Scopes										
	Check Items		Agriculture/fishery	Livelihood	Trade	Wetland/Forest Conservation and	Waste management	Flood control	Capacity Building	Barangay Level Enhancement	Tax Collection	Roads	Bridges	Energy
	1	Involuntary Resettlement	В		В	П	С	С		С		В	В	В
	2	Local economy such as employment and livelihood, etc.	С		С							С	С	С
	3	Land use and utilization of local resources.	С		С							С	С	С
±	4	Social institutions such as social infrastructure and local decision making institutions.												
nmen	5	Existing local infrastructures and services	С		С		С	С				С	С	С
Social Environment	6	The poor, indigenous and ethnic groups			С									
cial E	7	Mis-distribution of benefits and damages	С		С		С	С				С	С	С
S	8	Cultural heritage/ Local landscape			С							С	С	С
	9	Local conflicts of interest	С		С							С	С	С
	10	Water usage or water right and rights of commons			С							С	С	С
	11	Sanitation	С											
	12	Hazards, infectious diseases			С							С	С	С
	13	Topography and geographical features	С		В		С	С		С		В	В	В
	14	Soil erosion	С		В		С	С		С		В	В	В
Natural Environment	15	Ground water	С				С	С						
viron	16	Hydrogical situation	С				С	С						
alEr	17	Coastal zone	С											
Natu	18	Ecosystems/ Wildlife/ Biodiversity	С		С							С		
	19	Protected Area			С							С		
	20	Land scapes			С							С		
	21	Air pollution/ Global warming gas			В							В	С	С
S	22	Water pollution	С		В							В	С	С
azards	23	Soil contamination			В							В	С	С
lic Tg	24	Waste			В							В	С	С
Pollutions & Public Ha	25	Noise & Vibration			В					С		В	С	С
ons &	26	Ground subsidence												
Polluti	27	Offensive odor												
4	28	Bottom sediment												
	29	Accidents			В					С		В	С	С

No mark: No impact is expected. EIA is not necessary. Source: JICA Study Team

A: Serious impact is expected.
B: Some Impacts /Unknown impacts are expected.
C: Extent of impact is unknown. (Examination is needed, or impacts depend on the scale and extent which are not specified yet)

# 4.0 TYPES MAGNITUDES OF POSSIBLE ADVERSE IMPACTS AND MITIGATION MEASURES

### 4.1 Review on the Impacts of Previous Similar Projects

According to the key informant interviews to BDA staff and the inhabitants of selected barangays by QIP Phase 1, no major problems or conflicts were reported in the earlier similar small scale infrastructure development projects. However, conflict generation mechanism varies greatly depending on the specific discrete circumstances in natural conditions, socioeconomic characteristics, historical grudge and so on. When the scale and the location of projects are identified, appropriate environmental and social impact assessment should be conducted.

### 4.2 Key Impacts and Mitigation Measures

Environment and social impact assessment can be conducted by means of existing information, data and Key Informant Interviews. Table J4.2-1 describes key impacts, either positive or negative, identified in the study and possible mitigation measures for the negative impacts.

Table J4.2-1 Key Impacts Identified in Provisional Scoping

CHECK ITEMS	DESCRIPTION OF KEY IMPACTS	POSSIBLE MITIGATION MEASURES FOR NEGATIVE IMPACTS		
Social Environment				
1. Involuntary Resettlement	Involuntary resettlement is not likely to occur if the planned scales of infrastructures are small.  However, medium to large scale land acquisition associated with displacement of existing infrastructure may induce resettlement of housings or commercial settlements.	Alternative location to avoid or minimize involuntary resettlement need to be discussed		
1. Local economy such as employment and livelihood	Road network development improves logistics and transportations which may promote local economy. It may provide job opportunity to local communities.	(no negative impact)		
3. Land use and utilization of local resources	Economic development of CAAs may induce better utilization of local natural and human resources.	(no negative impact)		
4. The poor, indigenous and ethnic groups	Conducted under the supervision of BDA, significant negative impact on Muslim community is not expected. However, negative impact on other religious groups or ethnic groups may occur. When the site is proposed, need to verify the impacts with on the surrounding communities. Physical separation is not expected. During the construction stage, if outsiders coming for the civil works may affect local public morals. The construction may results women and children to work in inappropriate conditions, such as sand and gravel extraction.	Fair distribution of the benefits and/or compensation to facility users need to be ensured by forming joint committees of local representatives.		
5. Mis-distribution of benefits and damages	Conducted under the supervision of BDA, significant negative impact on Muslim community is not expected.  However, negative impact on other religious groups or ethnic groups may occur. It is not expected to create any land use restriction.  However, when the site is proposed, need to verify the impacts with community.  Improvement of transportation system may ease logistics of common products in CAAs.	Fair distribution of the benefits and/or compensation to facility users need to be ensured by forming joint committees of local representatives.		

CHECK ITEMS	DESCRIPTION OF KEY IMPACTS	POSSIBLE MITIGATION MEASURES FOR NEGATIVE IMPACTS
6. Local conflicts of interest	Conducted under the supervision of BDA, significant negative impact on Muslim community is not expected. However, negative impact on other religious groups or ethnic groups may occur. When the site is proposed, need to verify the impacts with the communities. Land acquisition associated with construction of new infrastructure or displacement of existing infrastructure may affect local conflicts of interest in some extent.	Fair distribution of the benefits and/or compensation to facility users need to be ensured by forming joint committees of local representatives.
Natural Environn	nent	
7. Ecosystem/Wildlife /Biodiversity	No significant impact is expected, since the projects are small and local. However, the location needs to avoid value sites for Ecosystem/Wildlife/Biodiversity. Site screening need to be done avoiding environmental Critical Areas (ECAs) with reference to the Guidelines for PEISS.	With reference to the Guidelines for PEISS, consultation with EMB is required to avoid value sites for Ecosystem/Wildlife/Biodiversity, when the site is proposed.
8. Protected Area	No significant impact is expected, since the projects are small and local. However, the location needs to avoid protected areas under NIPAS.	With reference to the Guidelines for PEISS, consultation with EMB is required to avoid protected areas under NIPAS, when the site is proposed.

Source: JICA Study Team 2007

### 4.3 Detailed Description on Key Impacts and Mitigation Measures

### 4.3.1 Social Environment

### **4.3.1.1 Involuntary Resettlement**

Involuntary resettlement is not expected in SEDP since the scales of projects are small and confined. However, alternative location to avoid or minimize involuntary resettlement need to be discussed if involuntary resettlement is foreseen. Besides, it is obligatory to conduct screening of land tenure in perspective of both GRP and Muslim societies when the project design become more concrete and the location and the scale become more apparent. Utilizing the advantage of ongoing efforts for clarifying land claims may help to avoid further land conflicts. Currently, several land tenure improvement programs are ongoing under the initiative of regional government to identify land ownership and to facilitate the generation of land titles.

### 4.3.2 Natural Environment

As SEDP is planned to have mainly small scale infrastructures or rehabilitation of existing structures, significant impact on the natural environment is not expected. Principal mitigation measure is alternation of project location to the place distant from fragile or valued site.

### 4.3.2.1 Ecosystems/ Wildlife/ Biodiversity

As discussed previously, PEISS states "Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora and fauna)" as ECA for EIA implementation. The designation as ECA is decided by the EMB Regional Office based on individual consultation for particular projects, so when target area is identified, communications with the EMB is requisite. Especially in CAAs, because of the conflict affected environment, law enforcement and policy related efforts for ecosystem, wildlife and

biodiversity conservation by GRP may not be adequate, and related information may be limited. To confirm that indeterminate species, threatened species, rare species and endangered species are not inhabited in the prospective project areas, ecological survey is recommended in feasibility study stage of individual project. In case rare plants or animals are exposed by the ecological survey, appropriate consultations with the relevant agencies, such as Protected Area and Wildlife Bureau (PAWB), EMB, LGU and BDA, should be conducted to ascertain measures to be taken by each agency.

### 4.3.2.2 Protected Area

PEISS states "Areas declared by law as national parks, watershed reserves, wildlife preserves, and sanctuaries" as ECA, so that all areas of the National Integrated Protected Areas System (NIPAS) should be excluded from prospective project areas. In addition to the exiting protected areas, the "List Proposed Protected Areas" and "Key Biodiversity Areas" should be examined in consultation with the Regional Office of Protected Areas and Wildlife Bureau (PAWB), when the project target area and the scale are identified. One of the most critical areas of sensitive ecosystem, which may directly be affected by the project, is the Liguasan marsh, which is considered the largest wetland in the Mindanao with the cover of approximately 288,000 hectares over the provinces of Maguindanao, Cotabato and Sultan Kudarat. The area is historically promoted agricultural development, while the area is extraordinary rich in biodiversity. Coordination and cooperation between development effort and conservation effort is particularly required for Liguasan marsh

### 4.3.2.3 Landscapes

Among the potential projects discussed in Table 8 and 11, projects which need special attention to examine the possible impact by landscape alternation are developments of road network (barangay road, farm to market road), flood control facilities and irrigation system. The improvement of channel and construction of dikes and reservoirs for agricultural use as well as flood control and mitigation may entail alternation of landscape. Physical infrastructure constructions, such as housing, port, boulevard, and public market building also need special attentions. At this moment, it is impossible to asses the potential impact since the basic design, location and scale are not identified. In the stage of feasibility study, all prospected impact should be assessed.

### 5.0 ALTERNATIVES FOR SEDP

This section discusses the alternative option of SEDP.

### 5.1 "Without Project" Option (projects in CAAS will be implemented without SEDP)

SEDP is a unique development plan because:

It is the only development plan which focuses on the reconstruction and rehabilitation of communities in CAAs based on studies assessed the needs of from barangay level to municipality level to formulate community-level basic human needs projects. It is developed under the initiative of BDA which is recognized to represent societies in the region.

In other words, without SEDP:

There is no comprehensive development plan which focuses on the reconstruction and rehabilitation of communities in CAAs based on the study which assessed the needs of communities from barangay level to municipality level to formulate community-level basic human needs projects. There is no development plan formulated with the initiative of BDA which is recognized to represent Muslim societies in the region.

As for the positive impacts, none was identified.

As for the negative impacts without implementation of SEDP:

- Social inclusion of community in CAAs is very limited in existing development plan. Communities excluded from the formulation process of existing plan and projects will remain with poor conditions in basic living infrastructure, which may induce further poverty in future, and frustration among people to GRP.
- Economic development potential of CAAs in barangay to municipal level remains very limited, since the road network and market facilities in barangay to municipal level remain in poor conditions.
- The effort of GRP on socio-economic reconstruction remains with risk of excluding Muslim people and other minority groups from benefit distribution in Mindanao.
- There will be no development plan formulated by the positive participation of BDA and Muslim people; therefore, they do not have feeling of ownership in the existing development plan. The efforts on socio-economic reconstruction of GRP based on the development plan formulated mainly by Christian people may spoil the cooperation and support of Muslim people.
- Japan's assistance for reconstruction and rehabilitation of CAAs will not be fully provided, under the framework of existing development plan which were formulated by GRP.

### 5.2 With Project Option (other projects will be implemented along with SEDP)

As for the positive impact:

- The implementation of SEDP based on the community level needs assessment may cover all barangays which require urgent assistance to recover from the damage of conflicts.
- Road network and market facilities will be enhanced, and the development potential especially for agricultural industry will hike.
- The SEDP is considered as the only development plan formulated through the initiative of BDA and Muslim people, and it may induce positive cooperation of BDA/MILF and Muslim people.
- SEDP along with the existing development plan may generate synergy impact.
- The SEDP assures the commitment of Japan's cooperation for socioeconomic reconstruction of CAAs.
- Under the cooperation of Japanese government, environmentally conscious plan will be formulated and negative impact on social and natural environment will be avoided, minimized or mitigated.

### As for the negative impact:

- The formulation process of SEDP discouraged the participation of non-Muslim people in the region. The projects and its location were identified in view if Muslim people and the benefit from the development projects in SEDP may not be distributed to non-Muslim people in fair and appropriate way.
- Since the formulation process of SEDP discouraged the participation of non-Muslim people, non-Muslim people may develop frustration which may cause further conflicts between Muslim and non-Muslim in future.
- Development initiatives and intensive inputs for development for Muslim societies may create reverse discrimination on non-Muslim people by Muslim people especially in barangay level.

### 6.0 RESULTS OF THE DISCUSSION WITH RECIPIENT PARTIES

### 6.1 Project Presentation to the Recipient Government, BDA and other Stakeholders

The Study Team visited DENR-EMB Regional Office X, XI, XII, and ARMM, as well as BDA, and explained the study background, study objectives, study outlines and JICA's commitment on environmental and social considerations, which is appearing in JICA Guidelines for Environmental and Social Considerations. The Study Team requested and assured all concerned division in DENR to provide necessary cooperation and support for the implementation of SEDP. Also the Study Team had a series of meetings with BDA to assure their commitment on consultation on EIA process for proposed projects in SEDP. In the workshop held in Cotabato in August 2008, the Study Team explained the outline of JICA's Guidelines to stakeholders for SEDP, and pledged commitment of environmental and social considerations on the development and implementation of SEDP.

### 6.2 Requirement of PEISS on SEDP

The Study team conducted meetings with DENR-EMB Regional Office X, XI, XII, and ARMM, and discussed on the requirement of PEISS. All the information obtained from the visit to EMB was shared with BDA. According to the EMB Regional Office XII, as SEDP is a development plan which project implementation is indeterminate, there is no requirement by PEISS at the formulation stage. However, Environmental Impact Statement (EIS) should be prepared during feasibility study (F/S) stage and initial environmental assessment should be conducted during pre-feasibility study stage of proposed projects in SEDP. It was emphasized that EIA need to be undertaken before commencement of the project, and required documents should be prepared either project proponent or their designated consultants.

### 6.3 Requirement of PEISS on QIPs and OSAs

Based on the discussion with EMB Regional Office XII, it is confirmed that QIP and OSA are not significant scale and may not be subjects of EIA under PEISS. However, Project Description Report (PDR) need to be prepared for each project, and submitted to the EMB Regional Office of respective region to secure issuance of a Certificate of Non-Coverage (CNC).

## 7.0 TERMS OF REFERENCE FOR ENVIRONMENTAL AND SOCIAL CONSIDERATION

### 7.1 Compliance to PEISS

Environmental Impact Statement (EIS) should be prepared during feasibility study (F/S) stage and initial environmental assessment should be conducted during pre-feasibility study stage of proposed projects in SEDP. It was emphasized that EIA need to be undertaken before commencement of the project, and required documents should be prepared either project proponent or their designated consultants. All the information obtained from the visit to EMB was shared with BDA.

### 7.2 Special Attention to Land Claims

Claims on land have been one of the major issues of conflicts in CAAs historically, and therefore; special attention is required during the implementation of SEDP. The major complexity of land tenure issue is generated in the situation that the laws and regulations enforced by GRP, which were historically promoted with the migration of Christians, and traditional practice of land management by the Mindanao Muslim societies, that lands are managed socially and politically in 'sultanates', exist side by side for long time.

It is obligatory to conduct screening of land tenure from the both sides of views when the project design become more concrete and the location and the scale become more apparent. For the implementation of projects, maximum effort to avoid conflicts should be made. Utilizing the advantage of ongoing efforts to clarify land claims may help to avoid conflicts. Currently, several land tenure improvement programs, which identify land ownership and facilitate the generation of land titles, have been undertaken by the regional government.

Also, appropriate coordination to avoid conflicts is the requirement for all projects. For the implementation of QIP Phase one, lands were voluntarily donated by the land owners through the coordination by BDA, and consequently no conflict was reported. Before the commencement of the project, coordination with BDA and other stakeholders should be appropriately made. Securing Memorandum of Agreement (MOA) or "Letter for Deed" for each land is fundamental requirement.

### 7.3 Special Attention to the Poor, Indigenous and Ethnic Groups

Considering the fact that socially disadvantaged groups, such as women, elderly, the poor, ethnic minorities are susceptible to various social and environmental impacts, proper attention should be paid to them. Since they have weak access to the decision-making process, the project should encourage their participation for the stakeholder meeting especially in project selection and formulation stages.

### 7.4 Special Attention to Maldistribution of Benefits and Damages

Statistically, most of the Muslim population in Philippines is inhabited in CAAs. However, significant number of other religious and ethnic groups, such as Christians and indigenous minorities, reside along with them. Fair and objectively established criteria should be applied to the project selection. Information disclosures, public hearing and consultation with stakeholders from different religious and ethnic groups should be promoted with considering historical aspects of land claims, migration, and conflicts.

### 7.5 Alternative Analysis in Different Implementation Level

The Projects, for which in particular potential negative impacts on environmental and social aspects can be foreseen, should be considered along with alternatives to avoid, minimize or mitigate those impacts. SEDP is a plan which contains different levels of proposals in from policy level to program level. In principle, appropriate alternative analysis will be required in terms of the level. Table J7.5-1 indicates the example of alternative analysis for development plan.

Especially, ECPs or projects located in ECAs are envisaged to have adverse impact on the environment, and subjects of EIA by PEISS. Project base environmental and social impacts need to be assessed along with the alternatives.

**Table J7.5-1 Required Alternative Analysis for Development Study (example)** 

	LEVEL OF DEVELOPMENT PLAN AND REQUIRED ALTERNATIVES (EXAMPLE)							
	POLICY	PLAN	PROGRAM	PROJECT				
	Comprehensive development scenarios Comprehensive Strategic alternatives	Development Scenarios alternatives Land use alternatives Priority sector alternatives	Program alternatives Priority program alternatives	Location, route alternatives Technical application alternatives Implementation alternatives				
1. SEDP Immediate Term Plan			0	0				
2. SEDP Short Term Plan		0	0					
3. SEDP Medium Term Plan		0	0					
4. SEDP Long Term Plan	0	0						

<sup>\*□</sup> indicate "applicable", and ○ indicates "partially applicable".

Source: JICA Study Team

# **APPENDICES**

APPENDIX K

**HALAL INDUSTRY** 

# CRRGP F KZ 'MB/3<F GXGNQRKPI 'VJ G'J CNCN'KP F WUVT[ 'KP 'EQP HNKEV'' """"CHHGEVGF 'CTGCUKP 'O KP F CP CQ"

### JICA STUDY TEAM

### 1.1 THE CONCEPT OF HALAL: DEFINITION AND PRINCIPLES

Within the tenet of Islam, the concept of halal and haram are important to understanding Muslim culture. In Shari'ah Law, Halal literally means permissible and lawful. By permissible, it necessarily follows that it is clean, safe, healthy, sustainable, equitable and just system while haram describes those things that are forbidden.

As a way of life, Halal refers to being free from impurities, questionable and unacceptable practices. Thus, in planning, it includes a holistic consideration. Halal enjoins equitable, fair and just dealing and sustainable use of resources.

It is mandatory for Muslims to utilize and consume only Halal and not anything else. The Conflict-affected Areas of Mindanao (CAAM), with its people and natural resources is endowed with big Halal industry potential. Halal will generate local employment, which in turn increase family incomes and may prevent people from working abroad. Halal is for almost all people of the globe as it is healthy, wholesome, and normally low-fat. Halal is the most equitable form of business transaction especially in finance. Halal can help reduce trade deficit of Philippines with oil-exporting countries.

### 2.0 HALAL DEVELOMENT IN CONTEXT

### 2.1 Halal in the International Context: World and Region

By 2010, the estimated global Muslim population will increase to 3 Billion with 1 billion Muslims in Asia. At present, one in every four persons is a Muslim. Global Halal food trade is valued at US\$ 2.1 trillion as of 2008 by Kasehdia Sdn Bhd. In United Kingdom alone, the annual retail sales of Halal meat is valued at USD900 million. Muslim countries are net importer of Halal while more than 80 percent of Halal producers around the world are non-Muslims<sup>1</sup>. The countries of Indonesia, Pakistan, India, the People's Republic of China, Singapore, Brunei, Thailand as well as West Asia, with a collective Muslim population of approximately 1 billion, is a prime target market for halal goods and services. Consumers in West Asia having high disposable incomes making it a potential market for both halal products and services such as travel and tourism.

An estimated 195 million Muslim consumers are in Indonesia, followed by 157 million in Pakistan, 127 million in Bangladesh, 69 million in Egypt, 67 million in Iran, 66 million in Turkey, and 64 million in Nigeria. Countries that have sizable Muslim populations include India with 154 million, China with 39 million, Russia with 11 million, USA with 7 million, the Philippines with 5 million, and Thailand with 4.5 million (see Table M403-1).

<sup>&</sup>lt;sup>1</sup> Third industrial Master Plan

Table M2.1-1 Halal Consumers

CONTINENT	TOTAL POPULATION (MILLION)	MUSLIM POPULATION	FOOD EXPENDITURE	MARKET SIZE
Total	6,475.4	1,565.3	n.a.	547,409
Asia	3,921.0	1,043.7	350	365,299
West Asia	213.9	195.3	572	111,712
Indonesia	221.9	195.3	347	67,769
China	1,311.1	39.2	156	6,115
Malaysia	26.1	15.4	381	5,867
Thailand	65.0	5.9	371	2,189
Pakistan	162.4	157.5	n.a.	n.a.
India	1,103.6	154.5	n.a.	n.a.
Bangladesh	144.2	127.3	n.a.	n.a.
Others	672.8	153.3	n.a.	n.a.
Africa	906.0	461.8	200	92,360
Europe	727.4	51.2	1,500	76,800
North America	329.0	6.6	1,750	11,500
South America	559.0	1.6	500	800
Oceania	33.0	0.4	1,500	600

Source: The Third Master Plan, 2006-2020

South East Asia is becoming an important and competitive regional hub for the halal industry, in view of its vast consumer market, fast developing halal food production and progress on halal certification<sup>2</sup>.

With limited domestic agriculture, the expanding local food production industry throughout the sub-region has been primarily based on meat products. There is considerable room for expansion in the areas of non-meat, ready-cooked meal solutions, dairy products, baked goods, and cosmetics and toiletries.

### 2.2 Halal in the Philippines

The Philippines may yet become an important player in the Halal market. The 7 million Muslims in the Philippines alone is a big marker. Other estimates go as high as 12 million. In mapping the potential regional Halal Market, Mindanao is a potential contender as production centers for several Halal raw materials such as corn for animal feed and the production of chicken meat as well as in the Halal pipeline, business programs within the context of BIMP-EAGA (Brunei-Indonesia-Malaysia-Philippines-East ASEAN Growth Area).

Halal initiatives in the Philippines took off in 2008 but with limited success. Many Halal certifiers were still unregulated. At present, Philippines as a whole suffers low credibility in terms of Halal especially since turf wars between government agencies resulted to a disorganized Halal movement. Furthermore, there was lack of funding to support intensive Halal initiatives. The Philippines, at present, imports Halal certified products from neighboring countries in Southeast Asia such as Malaysia, Indonesia and Thailand.

Limitations in the development of the halal industry in the country include: lack of focus on developing domestic production in foods, since the economic development of many of the countries has been oil-driven as well as the limited or absence of infrastructure for domestic

<sup>&</sup>lt;sup>2</sup> The Third Industrial Master Plan 2006 - 2020, Ministry of International Trade and Industry Malaysia

halal certification. Most halal products are imported. While certification is mandatory, in general any recognized halal certificate is acceptable<sup>1</sup>.

The thrust on Halal is starting to pick up with the Philippine National Standard on Halal has been approved by Bureau of Product Standard of the DTI National Office in February 2008 and will be integrated into the Consumer Welfare Act and the recent establishment of National Halal Accreditation Board.

### 2.3 Halal in CAAM

In the 2007 World Halal Forum (WHF), Mindanao was eyed as Halal production base by the Malaysian investors. Autonomous Region of Muslim Mindanao (ARMM), a Muslim-majority province in southern Philippines (Mindanao) has expressed its interest in playing its part in the Halal market. Saudi Arabia already pledged a grant of USD 1 million to assist ARMM to boost its Halal food industry<sup>3</sup> HDC International Business Development Department (IBD).

Mindanao's halal industry is not yet developed, but there are efforts among stakeholders to get a share of the \$600-billion global halal market<sup>3</sup>. Mindanao being the only Muslim region in the Philippines and has strong historical and cultural ties with Brunei, Malaysia, and Indonesia. It is estimated that 40 percent of the country's agricultural output is from Mindanao. Mindanao is the source of majority of country's sea weed (agar-agar), copra, corn, oil palm, rice, banana, pineapple. It is the source of cow, goat, chicken, fish and tuna as well as the existence of support facilities however insufficient. The Island is relatively typhoon free and still there is vast tract of land for agricultural production while there is ample availability of unutilized manpower. Tapping the industry within Mindanao may serve as a strategy towards peace.

### 3.0 LEGAL BASIS OF HALAL IN THE PHILIPPINES

Halal Industry is an integral part of economic activity in ARMM. The enactment of REZA Law (MMA 541) in 2003 provides for legal framework of Halal Certification in the ARMM. Halal is made an integral part of the economic activities in ARMM which is expected to be mostly agriculture-based. ARMM has vast land areas that could be devoted to production of Halal raw materials as well as sound infrastructure to host different industries, transportation and communication needs. Thereafter, the ARMM Halal TWG was formed and chaired by DAF-ARMM with DTI as Co-Chair The 2004-2010 MTPDP specifically provides that the ARMM shall become a Halal production base.

On June 30, 2004, a Memorandum of Agreement (MOA) was signed between DTI, ABC and Dar'ul Ifta. The MOA provides some general provisions with the very purpose to bring in the players to the Halal Certification Board. In this MOA, the Dar'ul Ifta is to be the Chairman of the ARMM Halal Certification Board (HCB) with ABC as Secretariat. ARMM Government shall provide full support for the initiative. This MOA marks the beginning of a formal collaboration with the religious sector.

MMHB has been organized and recognized in Thailand, Malaysia, Brunei and other OIC Countries. There is a plan to develop a Comprehensive Halal Industry Development Framework. Moreover, a Halal fraud bill will be legislated by the RLA and numerous

<sup>&</sup>lt;sup>3</sup> Halal laboratory to rise in Koronadal, http://www.gmanews.tv/story/119803/Halal-laboratory-to-rise-in-Koronadal(September 12, 2008)

learning activities has been undertaken in Brunei, Malaysia, Thailand and Australia. On the other hand, while Halal food has already been given due attention, Halal cosmetics and pharmaceuticals are still in the distant future and Halal finance is yet to be given attention.

### Halal Industry and Products

The concept of halal is not confined to food itself. Halal products and services also include cosmetics, pharmaceuticals, clothing, financial services, and even tour packages. With so many to offer, the trade in halal products and services could potentially hit trillions of US dollars annually.

Halal goods and services are produced and consumed in CAAM, with excess production exported to other countries (local market first) and in turn ensures abundant supply of Halal foods, cosmetics, pharmaceutical and finance services thereby generating local Halal industry, employment and fund sources.

The halal standard does not cover just food. It also has rules regarding the transporting, packaging, labelling and logistics of foods; preparation procedures are also analyzed to ensure their accordance with halal standards, HACCP, GMP and other recognized safety/quality standards and compliances. These standards are applied to food processing plant, hotel operations, pharmacies, cosmetics, medical and many other businesses.

For the success of the Halal industry in Mindanao requires a stronger political, economic and marketing support from ARMM as well as from BJE.

### 4.0 HALAL GOODS AND SERVICES

### 4.1 Halal Foods

As applied to food, to be considered as Halal and lawful for consumption, an animal must be slaughtered in accordance with certain Muslim prescriptions. However, Halal concept goes far beyond merely food preparation but applicable to the whole supply chain, it takes a more holistic approach of addressing the relevant sectors from animal welfare to logistics and downstream products. Due to advances in food science and technology, halal food is being closely identified as science of healthy lifestyle. Halal food is from "farm to plate". Halal refers to GMP, HACCCP, SSOP plus Shari'ah.

There is a need for a unified understanding and guidelines for Halal such as those stipulated under the Philippine National Standard (2067:2008) developed by Muslims theologian, sharia'ah experts, and food scientists with the technical facilitation of BPS Technical Committee on Halal food. At present, there are also provicinal Halal technical working group in each provinces of the ARMM.

A P50 million budget for a science laboratory that will help small and medium enterprises will penetrate the lucrative halal market will soon rise in Koronadal, Central Mindanao as an opportunity to empower Philippine's human resource to significantly contribute to the global development of the halal sector<sup>4</sup>. It shall provide detection laboratories which will ensure continuous research which includes GMO, synthetic ingredients, among others.

<sup>&</sup>lt;sup>4</sup> Halal laboratory to rise in Koronadal, http://www.gmanews.tv/story/119803/Halal-laboratory-to-rise-in-Koronadal (September 12, 2008)

Halal feeds are now being developed by DAF-ARMM in collaboration with Saranay Feeds and Southern Chriatian College. There is already ample source of Halal raw materials since existing supply is not enough. Development issues related to Halal food includes: some of the existing Halal abattoirs are non-operational, thus, needs rehabilitation (i.e. Capiton, Datu Odin Sinsuat, Maguidanao). There is a need to certify existing facilities as Halal such as food processing plants in G.S.C. and Zamboanga City. Halal entrepreneurs need support from private entrepreneurs locally and internationally.

### 4.2 Halal Finance

As applied to business transaction, halal means free from uncertainty, interest and gambling. Halal enjoins equitable, fair and just dealing and sustainable use of resources. Halal finance is different from conventional financial system because it promotes equitable and just financial system, prohibits uncertainty and deceit, disallows riba, and forbids gambling. At present, established banks are not supportive of making Halal finance a viable alternative. All the banks in the country are not Halal compliant. SSS, GSIS, HMDF, Pag-IBIG and all the other insurances in the country are not Halal compliant. All pawnshops in the country are not Halal compliant. Halal financial institutions such as Amanah bank are not serving well and transactions are not working towards a more Halal-compliant approach.

Halal businesses may include: Banking, Halal insurance and Halal pawnshop, Halal mortgage, and stock exchange and other avenues for financial transactions. There is still a need for a stronger support of the private sector and foreign investors in this area given its high demand for Halal financial services. As a legislative support, there is an urgent need to lobby for a revised Central Bank regulation to accommodate Halal financial transactions wherein the BJE can facilitate an arrangement to this effect.

### 4.3 Halal cosmetics, pharmaceuticals and medicine

Halal cosmetics and pharmaceuticals refers to the development of products which are clean, safe, healthy and free from contaminations of najis or impurities. General rules on cosmetics, pharmaceuticals and medicine are based on cleanliness, health and safety considerations. This industry is still in its infancy even in other countries such as Malaysia, halal pharmaceutical and healthcare are still new in Malaysia but market demands are growing rapidly. Alternative products which are locally available include organic cosmetics and medicines (Virgin Coconut Oil).

### 4.4 Halal Sustainable Development

Halal in the environment refers to the use of renewable source of energy. Human being in Islam is a vicegerent, hence, is entrusted to keep the earth as habitable and sustainable for all generations. This refers to the Concept of vicegerency and trusteeship, the fair use of resources as well as sustainability.

### 4.5 Halal Tourism

Another industry that can be tapped for Halal is Halal tourism. According to Malaysian Institute of Economic Research (MIER); between 1999 and 2003, tourists from Muslim Middle East countries to Malaysia rose from about 20,000 to more than 800,000. And this number is increasing. In another industry report, according to UAE-based Landmark Hotel Management Co, there are plans to launch 10 shariah compliant hotels and serviced apartments in the UAE and Saudi Arabia by the end of 2010. Six of the 10 projects will be launched in Dubai, two in Abu Dhabi, one in Fujairah and one in Jeddah, the company said in

a statement. All the projects will be alcohol-free, serve halal food and give a percentage of their profit to charity.

# 5.0 INTERVENTIONS (INFRASTRUCTURE, POLICY, AND OTHER SUPPORT MECHANISM)

### 5.1 Physical Infrastructure and Logistics Support

- Establishment of a Halal Abattoir by DAF-ARMM and MHIDC
- Establishment of Halal Dressing Plant by DAF-ARMM and MHIDC
- Establishment of Halal Feeds by DAF-ARMM, SCC and Saranay Feeds
- Continuous Advocacy on Halal (radio programs in Buluan, Cotabato City, Lanao, Sulu and Tawi-tawi)
- Organization of Halal Provincial TWGs in provinces in the ARMM
- Investor's Incentives on Halal offered by RBOI-ARMM
- Current ARMM Leadership is committed to Halal as ARMM's competitive advantage. We expect that the future BJE will even by more vigorous.
- Mindanao Halal Industry Development Corporation is recently formed
- DOST XII is reported to have a plan to establish a 50-million Halal laboratory in Koronadal City
- Eight (1) existing Airports (1-trunkline, 3-secondary, 1 feeder, and 3-private)
- 162 Seaports, which includes 3-port of entries in Maguindanao and Basilan Prvinces.
- Tele-Communications, such as PLDT, PT & T, SMART, and Globe
- Financing Institutions, such as LBP, Metro Bank, DBP, etc.
- Roads and Bridges
- National Power Corporation's Power Grid in Lanao del Sur with generating capacity of 1,605 megawatts

### 5.2 Standards and Programs for the Halal Industry

### 5.2.1 Philippine Standards on Halal

Philippine National Standard (PNS) 2067:2008, which provides general guidelines for the Philippine food industry on the preparation and handling of Halal food, including food supplements and serves as a fundamental requirement for food products and food trade in the Philippines. This standard should be used together with acceptable food safety systems such as Hazard Analysis Critical Control Point (HACCP), and Good Manufacturing Practice.

### 5.2.2 Halal Advocacy Program

This addresses the growing demand for information about halal and aims to encourage investment in halal food production in the Philippines.

### 5.2.3 Halal Food Industry Economic Hub Portfolio

This consists of the Halal Economic Zone in Davao City and a Halal model poultry farm in Cagayan De Oro City:

- The proposed Halal Economic Zone in Davao City will cost at least P2.2 billion to establish. It will serve as the centrepiece of the halal investment portfolio being offered to overseas investors by the Arroyo government. The Zone is expected to generate 24,000 new jobs for Muslim Filipinos, and boost the Philippines' export earnings by at least \$200 million per year.
- An P840-million Halal model poultry farm in Cagayan de Oro City is another investment proposal packaged by the DA, establishing a Halal model poultry farm complete with research laboratories, abattoirs and other modern facilities.

### 6.0 DEVELOPMENT PARTNERS IN HALAL

### 6.1 Bangsamoro Development Agency

As a development arm of the MILF and using it network of Islamic-oriented volunteers, BDA can serve as conduit for small scale barangay based or household based animal fattening and poultry; network facilitators between foreign investors and its organized groups in different regions; and integrate Halal in all aspects of its activities

### 6.2 Consumers

There is a need for continuous learning, organizational strengthening, networking to other consumer groups and active advocacy of Halal products towards consumers to increase their awareness on the benefits of Halal products.

### 6.3 Halal Certifiers

Certification is necessary to ensure the utilization of a unified Halal standard and provision of a uniform fee to encourage friendly competition.

### 6.4 Investors

Invest and be the first to avail of added investment incentives, link with local investors, "Halal-first-profit-later" mental attitude, and local market first trade outlook.

### **6.5** Funding Agencies and Financial Institutions

To strengthen the Halal industry requires financial support for various Halal initiatives, Halal awareness, Halal production, Retooling of the Ulama, Halal market support, Education and information activities and ppen access to Halal financing.

### **6.6** The National Government

The role of the government is to facilitate Halal related transactions, establish various mechanism of support for Halal industry, establish support infrastructures and provide a good regulatory mechanism but ensure a private-led Halal initiative.

### **6.7** Government Line Agencies

Department of Agriculture - financial support for animal fattening, poultry, feeds and abattoirs and assistance on agricultural inputs;

### **6.7.1** Department of Trade and Industry (DTI)

DTI is active marketing support for Halal businesses, protection of consumers against Halal misuse, misinformation and abuse, active public advocacy campaign on Halal, and monitoring of mislabeled consumer items;

### 6.7.2 Department of Health

DOH isprovide continuous research on Halal pharmaceuticals and cosmetics, intensive study on effects of foods relative to Halal, monitoring of mislabeled cosmetics and pharmaceuticals and collaboration with Halal certifiers and consumers on cosmetics and pharmaceutical concerns; and

### 6.7.3 Department of Science and Technology

DOST is continuous research on Halal related technologies, establishment of Halal laboratories and collaboration with Halal certifiers and consumers on cosmetics and pharmaceutical concerns.

### 6.7.4 Academe

Provides for the offering of course on Halal food science, establishment of Halal support facilities and continuous research on Halal. Figure M6.7-1 illustrates potential roles of stakeholders.

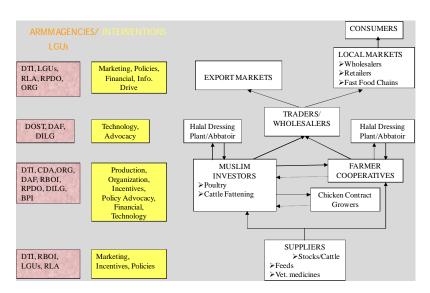


Figure M6.7-1 A Framework for Stakeholder Participation in CAAM

### 7.0 THE CHALLENGES FOR HALAL IN THE CAAM

### 7.1 General Challenges

- Existing infrastructure needs improvement
- Needed for additional infrastructure
- Market integration is very minimal
- Very few investors for Halal specific products

### 7.2 Consumer Side

- Low consumer awareness
- Defeatist attitude of being a minority
- Incorrect view on Halal as a political issue
- Lack of Halal cosmetics, pharmaceuticals and medicines
- Lack of Halal food outlets

### 7.3 Shari'ah

- Some rulings are outdated and need to be updated based on newly discovered scientific facts
- Ulama needs to be retooled on new discoveries on food, cosmetics and pharmaceuticals

### 7.4 Business establishments

- Misuse, mislabeling, misinformation of Halal term
- Muslim businessmen are mostly small scale, relatively doubtful on corporation concept which is needed to compete against big players
- Lack of integrators for Halal
- Wide dispersal of supplies (animal fattening and household based)
- Lack of financial input particularly Halal financing
- The peace situation is not good enough for foreign investors to come

### 7.5 Urgently needed interventions

- Abattoirs in different cluster areas
- Awareness of Consumers to increase demand for Halal
- Re-tooling of the religious sector on modern food technologies to add to their religious knowledge. Determining the Halalness of 1,400 known food ingredients (and the more to come) is not a simple task.
- Support to production of Halal poultry, goat and cattle fattening. There are existing areas for this purpose, but lacks capital for Halal production.
- Halal food outlets, hotels and restaurants
- Halal laboratory
- Offering of Halal food science in the curriculum

### 8.0 CASE STUDY 1 Chicken and Cattle Production, and Feedmill Subsector

This provides a case study of the Chiken and Cattle production, and feedmill located in Maguindanao and Lanao del Sur.

### 8.1 Area Analysis

### 8.1.1 Economic

There is vast agricultural land for the production of Halal raw materials in Maguindanao and Lanao del Sur. Both have a total 4,397 sq.km. comprising 69.90 percent of the total ARMM agricultural land area. There is high unmet demand of halal-food products. The global estimate of the Halal market put it conservatively at USD 150 billion. There are 1.3 billion Muslims in the world, who are potential consumers for the Halal market. One of the largest number of Halal consumers is in ASEAN considering that Indonesia alone with more than 200 million people has 90 percent Muslim consumer base. Philippines has a Halal market of 8 million Muslims or 10 percent of the Philippine population, which is bigger than all other ASEAN countries except Malaysia and Indonesia. Ninety-seven percent of ARMM is Muslim. Thus, the potential for industrial peace is high and history shows that there is a cordial labor-management relationship in ARMM.

### 8.2 OPPORTUNITIES

### 8.2.1 Political

There is guaranteed government support at the national, regional, local government levels. The Passage of the Regional Economic Zone Authority Law in 2003 by the ARMM Regional Assembly mandated the establishment of the Halal Certification Board provides its legal basis. In addition, the Regional Assembly is empowered by the Organic Act to pass regional laws on matters pertaining to SHARI'AH including Halal matters. ARMM has established in 2003 the ARMM Inter-Agency Technical Working Group chaired by DA-ARMM and co-chaired by DTI-ARMM. National government agencies particularly the Bureau of Export Trade Promotion and the Bureau of Product Standards in the DTI-National, DA-National, DILG Mindanao Basic Urban Support Service (MBUSS), MEDCO and OMA have all indicated their support to the ARMM Integrated Halal Industry Development Program. The MTPDP envisions Mindanao as the country's agri-fishery export zone and the development of ARMM as the Halal-based production and processing center.

### 8.2.2 Economics

Other Institutional Support includes funding from Japan International Cooperation Agency (JICA). It has identified Halal as the primary vehicle for economic development in ARMM and in Conflict-Affected Areas that they have pledged support and assistance. The Islamic Council of Thailand has expressed willingness to partner with the Muslim Mindanao Halal Certification Board. From 2 to 10 of August 2006, Halal familiarization visit to the Ministry of Religious Affairs in Brunei showed indication that they are willing to help the Halal Certification Board.

The LGSPA-CIDA and DTI-ARMM have assisted the Halal Certification Board to come-up with Technical Guidelines for Halal Certification and Accreditation and Manual of Operations, possibly the first of its kind in the country. This is being considered for adoption as the Philippine Halal Standard by the Bureau Product Standard of the DTI-National in cooperation with the ARMM government.

GEM-USAID had initially funded meetings at the beginning of the establishment of the Halal Certification Board in 2003 and the Islamic Da'wah Council of the Philippines had assisted in initial consultations prior to its set-up. The Asia Foundation/USAID also sent Muslims to Thailand through the Muslim Business Forum to explore the Halal Certification process early on. Bentley Furniture Incorporated had partnership with LBP to finance farmers on Cattle Fattening Project in ARMM.

### 8.2.3 Good Support-Service Facilities and Infrastructures

At present, there are eight (1) existing Airports (1-trunkline, 3-secondary, 1 feeder, and 3-private) and 162 Seaports which includes 3-port of entries in Maguindanao and Basilan Provinces to serve as strong logistics support. An expansive tele-communication network is also present served by companies such as PLDT, PT&T, SMART, and Globe. There are a number of financial institutions such as the LBP, Metro Bank, and DBP within Mindanao. Roads and Bridges are also present. The National Power Corporation's Power Grid in Lanao del Sur with generating capacity of 1,605 megawatts provides power to CAAM with the cost of electricity relatively cheap.

### **8.2.4** Social

There is strong cultural affinity with the Middle East and the ASEAN countries. Large pool of skilled manpower with competitive salary rates (per Wage Order No. ARMM-07, as of January 2005). There is also a high supply of trainable labor in the region. The Establishment and Institutionalization of the Muslim Mindanao Halal Certification Board in ARMM composed of the Five (5) Muftis of the Five (5) Provinces of the ARMM, who have preponderance of influence and sway over 4 million Muslims in the ARMM and as such, other Muftis in other places in the Philippines usually follow the fat was emanating from them. ARMM Social Fund earmarked money for the construction of Testing Laboratory building in ARMM funded by the Japan Bank International Cooperation (JBIC).

### 8.2.5 Spiritual

The participation of the DAR'UL IFTAH of the Philippines (House of Opinion) based in Cotabato City is the key advantage of the ARMM because the Dar'ul Iftah consist of the most "eminent and credible" jurists in Islamic Law in the Philippines, who can render judgments or fatwas on what is halal (permissible) and haram (forbidden).

### 8.2.6 Technological

Other Institutional Support includes the offer of Department of Islamic Development Malaysia (JAKIM) offered to train at least ten (10) people from ARMM on the Malaysian Halal Standard which is endorsed by the Organization of the Islamic Conference. AUSAID will provide one (1) unit Mobile Halal Slaughter Van for ARMM.

### 8.2.7 Ecological

The region enjoys a moderate and even distribution of rainfall throughout the year and is generally spared from typhoons.

### 8.3 THREATS AND CONSTRAINTS

### 8.3.1 Political

There is still a lack of ARMM Law on Halal regulation. RLA members are not fully aware of the huge Halal potential and opportunities on Halal-food industry. Incomplete devolution of functions of bureaus and offices of National Line agencies to ARMM, such as Bureau of Customs and BETP are encouraged. There is still the absence of Islamic Banking System as

well as the lack of political will in the implementation of Municipal Ordinances (i.e. tax incentives and zoning plan).

### 8.3.2 Economics

Lack of financial institution supporting the Halal program (banks). Possible proliferation of competitors and new entrants for imported Halal products. Transportation, freight and handling are added costs of Halal products for exports due to the distance of international ports of exit, which often located in Metro Manila. Importation of Halal feeds may also be expensive due to ARMM's distance to International port of entry.

### 8.3.3 Political

There is absence of Law on Halal Regulation. RLA members are not fully aware of the big opportunities on Halal-food industry. There is incomplete devolution of functions and some bureaus and offices of the national line agencies to ARMM, such as Bureau of Customs and BETP. There is the absence of Islamic Banking System. Lack of political will in the implementation of Municipal Ordinances (i.e. tax incentives, zoning plan) and the presence of loose armed groups.

### 8.3.4 Economics

There is lack of financial institution to support the Halal program such as the pledge of banks. There is the possibility of the proliferation of competitors and new entrants in the importation of Halal products. Transportation, freight and handling are added costs of halal products for exports due to distance of international port of exit which is located in Metro Manila. The importation of halal feeds may also be expensive due to ARMM's distance to International port of entry

### 8.3.5 Technological

There is absence of halal facilities, abbatoirs, dressing plants, laboratory facilities. Also, the lack of technological skills and knowledge on Halal of ARMM personnel should be addressed. There is also the lack of or absence of institutions offering Halal-related courses and curriculum.

### 9.0 REFERENCES

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# **APPENDICES**

APPENDIX L

**SEDP QUICK REFERENCE** 

# APPENDIX L1-1: SUMMARY MATRICES OF SEDP SPATIAL AND SECTORAL STRATEGIES (2009 - 2023)

PROGRAM OF ACTIVITIES			1. Construct new and upgrade existing Educational facilities towards the implementation of one elementary, secondary, Madrasah and Daycare Center per barangay.	2. Provision of schooling facilities (i.e., appropriate equipment, books, desk, blackboards, etc).	3. Upgrading of the qualifications of teachers or the hiring of qualified teachers to provide effective and efficient Education delivery.	4. IPs and IDPs shall have greater access to and attendance at quality elementary and secondary levels.			<ol> <li>Recognize the presence of Madrasah and implement community- based Madrasah education to increase access of Muslims to quality education</li> </ol>	3. Improve teaching quality and education resources for effective delivery of quality education through the Madrasah or Madaris. Madrasah education system centers on Arabic literacy, Islamic values and religion		<ol> <li>Enrich secondary level of education by integrating computer skills and strengthen Science and Technology programs</li> <li>Strengthen the linkages between the Education system and the Industry to improve employability of graduates</li> <li>Promote technical-vocational education programs and short-term training courses to equip the out-of-school youth and school dropouts (from elementary to tertiary education) with basic occupational skills</li> </ol>
KEY TARGETS			Rehabilitate substandard elementary school and secondary school facilities in identified CAAM barangays	• Upgrade 1,680 primary schools in CAAM into complete elementary school	• To catch up with Mindanao average: 1,113 elementary schools are needed to be built in CAAM	• To catch up with Philippine average: 1,276 elementary schools are needed to be built in CAAM	• High priority municipalities in the Education subsector includes: Sultan Naga Dimaporo (Karomatan), Poona Piagapo, Munai, Magsaysay, Lumba-Bayabao (Maguing), Kapai, Bubong and Bayang.					
STRATEGIES/SECTOR and SUB-SECOTR	<ul> <li>Improve access to and provision of basic social services</li> <li>Pursue small scale but high impact projects</li> <li>Environmental compliance of all implementable</li> </ul>		Improve Equitable Access to Education				<ul> <li>Improve Quality of the Learning Environment</li> <li>Implement National and Regional Standards</li> </ul>	and Programs to Mainstream Madrasah	<ul> <li>Involved Muslims communities in the development processes and initiatives.</li> </ul>	• A notable development under ARMM's Education sector is the existence of Madaris, recognized under LOI 1221, LOI 71-A and RA 9054 (organic act for ARMM) and the MMAA	14 (Basic Education Act for ARMM) as part of the Philippine Education System.	<ul> <li>Pursue an Integrated Curriculum with technical skills development at the secondary level</li> <li>Implement National and Regional Standards and Programs to Mainstream Madrasah</li> </ul>
DEVELOPMENT GOALS AND OBJECTIVES SOCIAL SECTOR		EDUCATION SUBSECTOR	Improve access to basic social services towards improving the overall well being of CAAM constituents;	Achieve a rational distribution of opportunity to live and prosper;			• Education subsector: generate employment for the most impoverished households in CAAM, enhance and integrate Madaris Education at all levels as well as strengthen Science and Technology education especially among youth. Institutionalize poverty reduction-initiatives in all	levels of government;	Improve the health status of the CAAM population to reduce maternal and birth mortality rates, reduce the spread of communicable		<ul> <li>Encourage partnership between communities and the private sector in building poverty reduction programs and awareness.</li> </ul>	

DEVELOPMENT GOALS AND OBJECTIVES	STRATEGIES/SECTOR and SUB-SECOTR	KEY TARGETS	PROGRAM OF ACTIVITIES
HEALTH SUBSECTOR			
<ul> <li>Improve the health status of the CAAM population to reduce maternal and birth mortality rates, reduce the spread of communicable diseases, and raise life expectancy; and</li> <li>Encourage partnership between communities and the private sector in building poverty reduction programs and awareness.</li> </ul>	Increase people's access to quality Health     Care and Nutrition	<ul> <li>To catch up with Mindanao average, provide 3,080 hospital beds as well as provide BHCs to 56 percent more to the total number of CAAM barangay. Provide 50 RHUs within CAAM.</li> <li>Prioritize the provision of BHCs to all the barangays in the municipalities of Munai, Bayang, Pagayawan (Tatarikan), Pualas, Lumbayanague, Tagoloan II.</li> </ul>	<ol> <li>Expand the rural health service network so as to provide adequate and fair access to basic health care services especially to people in remote communities in CAAM</li> <li>Construct new and upgrade existing Health facilities by accelerating investments in health care programs</li> <li>Increase the number of Barangay Health Centers (BHCs) and Rural Health Units (RHUs) at both the barangay and municipal levels, respectively</li> </ol>
	Improve the delivery of basic health Service	• Increase the number of health personnel such as physicians, midwives, nurses and dentists	<ol> <li>Improve the quality of health services to meet the demands of local people as well as strengthen alternative health remedies and practices to augment traditional practices</li> <li>Promote priority programs in the health sector which focuses on primary health care covering both preventive and curative aspects</li> <li>Raise the capability and qualification of health care professionals, increase the quantity and quality of equipment and support facilities</li> <li>Increase access of the people to essential drugs at affordable cost by putting up Botika ng Barangay in every barangay.</li> <li>Increase awareness on how to improve the health and sanitation</li> </ol>
	Intensify information dissemination drive and campaign on Health and Sanitation		status in CAAM through efficient and cost-effective methods and programs  2. Prevention and treatment of communicable diseases 3. Decrease maternal and child mortality rates 4. Promote immunization as the cornerstone of primary health care 5. Prevention and treatment of water borne diseases; 6. Implement policies and programs on the effective and efficient management and the control of transmittable diseases, such as diarrhea, malaria, dengue fever, tuberculosis, leprosy and HIV/AIDS.
	<ul> <li>Upgrade the Capacity of Health Workers</li> </ul>		<ol> <li>Increase morale and quality of services of health workers and personnel at the municipal and barangay levels.</li> <li>Increase opportunities for medical training of barangay health workers and midwives particularly to handle emergency human</li> </ol>
	Promote and Upgrade Reproductive Health Care and Services		security issues.  Improve mother and child health services and women's access to primary health care  Ensure access to health of women and children, particularly in remote and poor areas of CAAM  Increase women and children involvement to ensure the successful implementation of immunization, clean water and other public health programmes.
HOUSING AND RESETTLEMENT			
	Develop and Formulate reintegration and stabilization plan for the IDPs in CAAs		1. Implement reintegration and stabilization plan with the end view of attaining sustainable livelihoods, gaining access to social services, and promotion of reconciliation efforts.  2. Support peace building efforts and other reintegration activities such as community organizing, and facilitation of psycho social services

DEVELOPMENT GOALS AND	STRATEGIES/SECTOR	KEY TARGETS	PROGRAM OF ACTIVITIES
ECONOMIC SECTOR			
	Pursue a Tri-Polar Growth Strategy		
	• Tap CAAM's rich natural resources		
	<ul> <li>Develop the Economic Sector in Close</li> <li>Collaboration and Active Partnerships with</li> </ul>		
	and among Development Partners		
<u>ڪ</u>			1 Danieit the MAYDA accounted from any identific and for
Intensity, expand, diversity and develop economic enterprises and growth centers in	Create an investment-inenaly environment specifically in the identified tri-polar growth		1. Revisit the MINDA conceptual Hamework and Identity areas for strengthening.
CAAM	centers:		
• Create sustainable livelihood options for the	- Metro Cotabato as CAAM's Juridical		3. Crop and livestock integrated farming systems program
underprivileged  Engine food sequify and price stabilization	Center — Marawi City the cultural hub and R&D		4. Fallii income diversincation and market development program 5. Increase/Provide alternative livelihood trainings
	Focal Point		6. Capability building on formulation/implementation of Barangay-
underprivileged	- Pagadian City, CAAM Gateway and logistics hub		level investment plans 7. Upscale the efficiency and effectiveness of the three growth centers
			in generating job employment, production of raw materials, and commercialization of products and by-products.  8. Increase the number of private led eco-agro tourism programs.
	Mainstream the Halal Industry		1. Mainstream Halal industries and
			products - Intensify production of raw materials to fuel the growing Halal food processing business
			Promote Halal-related TOURISM
	Provide trainings on alternative livelihood		1. Sustain livelihood initiatives with the end goal of creating employment opportunities, alternative income source, and increase
			productivity.
			- Encourage TIE-UPS with academic/research institutions,
			and local organizations for technical expertise and know-how
	Develon Bural Markets		ın order
			2. Launch a program to cushion the effects of the global recession on
			the migrant workers - Provide training for new skills for overseas Filipino workers
			who were removed from their foreign jobs as a result of the
			Prmote support measures to facilitate exportation
			- through Export Pathways Programs and the Regional
			Interaction Platform for Philippine Exporters( Ripples)
			1. Develop a rural marketing system for agricultural products and
			2. Prioritize investments in low-income and poor communities.
			3. Encourage various economic sectors to underwrite contracts with farmers for the marketing of agricultural and forestry products, both
			local and for export.  4. Strengthen the direction of barangay economy development

DEVELOPMENT GOALS AND OBJECTIVES	STRATEGIES/SECTOR and SUB-SECOTR	KEY TARGETS	PROGRAM OF ACTIVITIES
			towards added value on crops and craft diversification 5. Increasing the share of industry and services while decreasing the level of marketing of raw agro-industrial products. 6. Access infrastructure in barangays, particularly roads, electricity-supply systems, water supply system, including health clinics 7. Develop a highly skilled labor force by investing in education and training, and provide vocational courses, livelihood trainings and enrichment projects and programs.
<ul> <li>Increase agro-fishery production and industrial productivity to gradually become the "food basket" for the region</li> </ul>	• Modernize the Agro-Fisheries subsector through RA 8435 or the Agriculture and Fisheries Modernization Act.		1. Provide postharvest facilities (i.e. barangay food terminals, dry and cold storage facilities, mechanical dryers, meat and dairy products processing, and fish cannery 2. Capitalize and intensify production of high-value crops (rubber, cassava and other commodities
Attain sustainable agro-industrial development to help CAAM communities and its people overcome poverty and generate more stable jobs	• Fast track the implementation of projects by adopting the programs of the Department of Agriculture for the industrialization and modernization of agriculture and aquaculture subsectors in CAAM.		<ol> <li>Prioritize SMEs</li> <li>Provide sustainable Agro-industrial development scheme</li> <li>Tap potential service industry in agriculture, fishery, and tourism.</li> </ol>
	Intensify, encourage and pursue Agro- industrial development		
	The development of agricultural and fishery production must provide a sustainable development scheme or plan as it taps the sea and island economy resources.		
	Improve the quality of CAAM's Human Resource Pool		1. Tap the potential of the youth, IDPs and local communities and IPs.  2. Develop a highly skilled labor force by investing in education and training,  3. Provide vocational courses, livelihood trainings and enrichment projects and programs industry and community-based tourism  4. Training programs shall be conducted in coordination with local government units (LGUs)
	Develop culture in synchrony with socio- economic growth		1. Enhance the information and culture network by the preservation of cultural artifacts, and heritage areas.
			<ul> <li>2. Develop and capitalize eco-tourism and protect the environment</li> <li>- Conduct tours to historical and cultural sites in poor districts;</li> <li>- Develop culture-model villages;</li> <li>- Develop Marawi City as vital hub for cultural information and education within CAAM;</li> <li>- Invest in the construction of tourist and recreational facilities;</li> <li>- Develop CAAs as tourist attractions and establish clear intra-CAAM and inter-regional tourist routes.</li> <li>- Invest in tourism developments anchored on thematic models such as ecological tourism, medical tourism, Halal tourism, agri-tourism, health and spa tourism, cultural and historical tourism, among others.</li> </ul>

DEVELOPMENT GOALS AND OBJECTIVES	STRATEGIES/SECTOR and SUB-SECOTR	KEY TARGETS	PROGRAM OF ACTIVITIES
	• Improve Indigenous Peoples (IPs) Quality of Life		1. Provide capacity building and training to include training of staff for IPs, IDPs and other ethnic groups
	conditions in accordance with their cultural tradition and capitalize on the potentials of		2. Increase people's awareness on preservation and promotion of cultural values and traditions.
	organic farming, transfer of technology, and diversification of industries		3. Uphold the culture of indigenous groups,
			4. Advocate indigenous rights, traditions, beliefs, practices and artifacts;
			5. Inculcate respect and tolerance for cultural differences and uniqueness;
			6. Find common grounds for cooperation and unity amidst cultural diversity
INFRASTRUCTURE SECTOR			
	<ul> <li>provide adequate provision, rehabilitation, expansion and upgrade of crucial facilities to support social-economic services and environment interventions and governance services for the attainment of SEDP goal and objectives</li> </ul>		
WATER SUPPLY			
<ul> <li>Prioritize the construction and rehabilitation of farm-to market roads in the rural areas.</li> <li>Construct and rehabilitate roads and bridges connecting rural areas to the centers.</li> <li>Facilitate proper planning and implementation of infrastructure development programs.</li> <li>Construct, expand or rehabilitate airport and seaport facilities and utilities.</li> <li>Provide a reliable and sufficient communication facilities</li> <li>Construct and rehabilitate irrigation projects.</li> <li>Develop potable water supply system in all areas.</li> <li>Provide power supply in all areas</li> <li>Construct and develop socialized housing for the internally displaced people and the homeless.</li> </ul>	<ul> <li>Specific Strategies on Water Supply Subsector</li> <li>Improve access to potable Water Supply</li> <li>Water and Sanitation</li> </ul>	<ul> <li>Provide water supply connection (Levels II and III) to 92 percent of households in CAAM.</li> <li>Prioritize provision of water supply system in municipalities within the provinces of Zamboanga del Sur and Basilan.</li> </ul>	<ol> <li>Provide safe and potable water quality to communities especially prioritizing the water needs of the poorest barangays and far-flung areas in CAAM.</li> <li>Ensure equitable distribution of potable water</li> <li>Upgrade to Level III water supply connections in urban households</li> <li>Increase access to safe water</li> <li>Promote good hygiene and improve sanitation by emphasizing the importance of water supply in reducing morbidity and mortality.</li> </ol>
POWER AND ENERGY			
	<ul> <li>Improve access to reliable supply of energy</li> </ul>	• To catch up with Mindanao level: achieve 95 percent barangay electrification and 57 percent of households in CAAM energized.	1. Improve access to reliable supply of energy and increase electrification rate in CAAM barangay
	Tap and Promote potential New and Renewable Energy Resources ( NREs) .	• To catch up with Philippine level: achieve 98 percent energized barangays and 70 percent of CAAM households being energized.	1. Give priority to developing the potentials of NREs such as wind, solar, ocean, mini-hydro and biomass energy sources 2. Promote greater utilization of NREs especially in remote areas given the lack of access to regular electricity source and its cost-

DEVELOPMENT GOALS AND OBJECTIVES	STRATEGIES/SECTOR and SUB-SECOTR	KEY TARGETS	PROGRAM OF ACTIVITIES
		<ul> <li>Prioritize electrification of barangays within the provinces of Lanao del Norte and Maguindanao.</li> <li>Tap new and renewable energy (NRE) resource capacity especially in remote areas such as in the municipalities of Lanao del Sur and North Cotabato.</li> </ul>	effectiveness.
ENVIRONMENT SECTOR			
	<ul> <li>Strengthen Institutional Capacity for Policy Implementation and Law Enforcement</li> <li>Improve Forest Resource</li> <li>Improve Solid Waste Management in Community Level</li> <li>Strengthen Flood Control Capacity</li> <li>Community-based coastal resource management</li> </ul>		
<ul> <li>Advocate climate change awareness.</li> <li>Preserve and maintain the integrity of the environment.</li> <li>Ensure a sound utilization of the natural resources.</li> <li>Prevent the amplification of the effects of natural disasters.</li> </ul>	<ul> <li>Specific Strategies in the Environment Sector</li> <li>Create a climate conducive for investments and production</li> </ul>		1. Support policies that liberalize, streamline, and refocus Environmental Compliance Certificate (ECC) system     2. Promote technology transfer from technology generation.     3. Support the implementation of the Clean Development (CDM) Projects
<ul> <li>Protect the forest, lowland, urban, coastal and freshwater ecosystems.</li> <li>Maintain the biodiversity and uphold conservation efforts.</li> </ul>	Biodiversity Initiate the development and sustainable utilization of biodiversity resources		1. Promote the establishment of wildlife farms, massive replanting of forest tress or reforestation projects, plantation farms.
	Implement a community-based ecological solid waste management		1. Promote integrated waste management system ( segregation, and collection at source, materials recovery facilities, recycling and composting)     2. Infrastructure development of garbage pit and dump waste processing facilities     3. Provision of a communal storage facilities and markets for compost and recyclable materials
	Increase community awareness through education campaign program		<ol> <li>Conduct community-based waste management orientation programs and projects, seminars, and training course on disaster preparedness and management strategy in the development planning process at all level of governance.</li> <li>Promote participatory health and hygiene education</li> <li>Encourage waste management as potential business venture.</li> </ol>
	Implement community-based coastal resource management		<ul> <li>1.Support programs and projects on coastal environment sanitation</li> <li>- plantation and mangrove nursery development.</li> <li>- Intensify information, Education and Communication Campaign</li> <li>- Expand CBCRM interventions to other CAAM coastal areas.</li> </ul>

DEVELOPMENT GOALS AND OBJECTIVES	STRATEGIES/SECTOR and SUB-SECOTR	KEY TARGETS	PROGRAM OF ACTIVITIES
LOCAL GOVERNANCE AND ADMINISTRATION	ATION		
<ul> <li>Mainstreaming the rebel groups through an enhanced amnesty, reintegration and reconciliation program.</li> </ul>	Strengthening the management capability of BDA		1. Promote the implementation of the reintegration program of the LGUs in their localities
reconcinuon program,	Establishing and improving its financial management system Ensuring sustainable funding mechanism		
	Increasing human resource capability and skills enhancement		
	Linking and building networks		
	Complementary measures to minimize the level of violence arising from armed conflicts.		
<ul> <li>Rehabilitation, development, and healing of conflict-affected areas; and</li> <li>Strengthening the peace constituency and citizens' participation in the peace process on the ground</li> </ul>	Government shall encourage, recognize, respect, and support grassroots peacekeeping initiatives by civil society or local government units (LGUs), especially the community declaration of peace zones and other "spaces" for peace, citizens' campaigns for and monitoring of ceasefire agreements, and localized peace talks. In conflict-affected indigenous communities, traditional or indigenous mechanisms for conflict settlement shall be tapped. Information education to promote nonviolent means of conflict resolution shall likewise be undertaken.  Implementation of an enhanced and integrated reintegration, rehabilitation, and amnesty program to mainstream former rebels into society.  Rehabilitation and development of conflict areas	<ul> <li>Rehabiltatio and development shall be undertaken in the following CAAs.</li> <li>Palimbang in Sultan Kudarat,</li> <li>the perimeter towns of the former Camp Abubakar (Barira, Buldon, and Matanog in Maguindanao);</li> <li>perimeter towns surrounding Buliok (Pikit in North Cotabato and Pagalungan and Datu Montawal in Maguindanao);</li> <li>Triple-S/B areas in Zamboanga Peninsula (Siocon, Sibuco, Sirawai and Baliguian);</li> <li>Carmen and President Roxas in North Cotabato; and</li> <li>Damulog in Bukidnon.</li> </ul>	1. Adopts barangay –focused rehabilitation and development program.  1. Conduct community-based interfaith and intercultural peace education and advocacy campaigns; 2. trauma counseling and rehabilitative services for displaced families, especially women and children victims of armed conflict; 3. holding of community rituals and traditional practices for cleansing, healing, and reconciliation
	in conflict-affected communities.		