

CHAPTER 3

SOCIO-ECONOMIC PROFILE AND ASSESSMENT OF CONFLICT-AFFECTED AREAS IN MINDANAO (CAAM)

3.1 CAAM PROFILE

3.1.1 Background on the Planning Environment

In order to make Socio-Economic Development Plan (SEDP) for CAAM, first of all the current socio-economic condition in targeted area on barangay level are to be fundamental factors. Therefore the Study focused on socio-economic profiling and assessment in the past trend of demographic increasing and its projection, GRDP distribution in Regions and industries. In addition, socio-economic gaps among national, Mindanao and CAAM averages, and development needs in CAAM are likewise analyzed in social, economic, infrastructure, environmental, and local governance and administration sectors. On the basis of the results of socio-economic gaps and development need, projects for SEDP could be identified and set forth.

Development projects should work towards post-conflict reconstruction and involve exit strategies which, at present, is lacking in local communities. People living in these communities ultimately have the greatest need for timely and effective support to regain hope and to embark on the path to sustainable peace. It thus becomes imperative to re-think priorities of funds being subdivided between emergency, humanitarian relief efforts on the one hand, and reconstruction and development efforts on the other. As a result, many gaps have emerged and have been part of the challenges in terms of how the recovery process is managed in post-conflict countries.

Therefore understanding the planning environment to address the pressing issues and challenges is often complex and location specific. These would include analyzing or understanding certain thematic concerns such as the background of the conflict, demographic changes, identifying the development sectors and sub-sectors, learning from experiences of other agencies or program implementers in CAAM, strategic interventions (projects) that would both push for development but at the same time protect the natural resources from unnecessary devastation or utilization.

These provide bases for the strategies, programs, and projects to be identified in the latter stages of the Project. Information is gathered mostly from secondary data such as development plans and technical reports obtained from relevant government agencies, local government

units and the like.

This chapter also includes a presentation of the results of the FGDs, Key Informant Interviews conducted by the Study Team. The interviews elicited perception of various stakeholders on the current peace process, on the impact of armed conflict in their communities as well as their thoughts on the appropriate roles of each stakeholder in the development of the CAAM.

3.1.2 CAAM Land Area

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 % of the Mindanao Land area, the latter accounts for about one-third of the country's total land area.

CAAM is located within the six administrative regions namely, Zamboanga Peninsula (Region IX), Northern Mindanao (Region X), Davao (Region XI), SOCCSKARGEN (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.

Table 3.1-1 Land Area of CAAM Provinces and Cities

AREA NAME	LAND AREA ^a (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 Oriental	5,740.0
Region XII	
North Cotabato	9,008.9
Sarangani	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

^a Land area is based on the 2005 Land Area certified by the Lands Management Bureau.
Source: National Statistics Office and Lands Management Bureau

3.1.3 CAAM Provinces and Three Cities

It is important to note that, 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 3,847 barangays.

3.1.3.1 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 sq. kilometers and a total population of 907,238 with an annual growth rate of 1.35%, which is slightly lower than the region's growth rate, according to NSO as of August 2007.

3.1.3.2 Zamboanga 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.

3.1.3.3 Zamboanga Sibugay

Zamboanga Sibugay has an approximate total land area of 3,228 sq. kilometer. The population of the province totals to 546,186, with annual growth rate of 1.30%, the lowest among the provinces of Zamboanga Peninsula (NSO, 2007).

3.1.3.4 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 serves as the land bridge of Zamboanga peninsula to the rest of Mindanao.

3.1.3.5 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 area.

3.1.3.6 Davao Oriental

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 % of the total land area of the region.

3.1.3.7 North Cotabato

North Cotabato, with a land area of 6,565 sq. kilometer, represents 45% 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 river 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.

3.1.3.8 Sarangani

Sarangani 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.

3.1.3.9 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.

3.1.3.10 Sultan Kudarat

The province of Sultan Kudarat is part of SOCCSKSARGEN (Region XII). 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.

3.1.3.11 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.

3.1.3.12 Lanao del Sur

Lanao del Sur is a province of 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.

3.1.3.13 Maguindanao

Maguindanao is a province of 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.

3.1.3.14 Marawi City

Popularly known as Islamic City of Marawi, it is bounded on the west by Marantao and Saguieran, on the east by Bubong and Ditsaan Ramain, on the north by Kapai, and on the south by Lake Lanao. 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 of the geographical coverage expansion of ARMM. The city is composed of 96 barangays. 90 % 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 for 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 (NSO). 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.

3.1.3.15 Isabela City

Isabela City is the capital of the province of Basilan, 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 ARMM where Basilan province is. From a capital town of Basilan Island Province, Isabela was upgraded into a third class city in 2003. It is still 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 ARMM through the plebiscite of September 2001. The city has a direct trade link 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 per sq. km area.

3.1.3.16 Pagadian City

Pagadian City is the capital city of Zamboanga del Sur 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 the 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 per sq. km.

3.1.4 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. The CAAM total population is not affected by the movement since the transfer of political jurisdiction happens only from one province to another. Some salient information is 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 X and Region XI.
- 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 the 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) The Municipality 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) The 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) The 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.

3.1.5 Demographic Trends in CAAM

3.1.5.1 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 development, it can, however, provide an indication of problems or issues. 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 3.1-2 HDI per Province

	ADMINISTRATIVE UNIT	1994	1997	2000	2003
		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	0.360
2	Basilan	0.423	0.439	0.425	0.409
3	Zamboanga del Norte	0.472	0.510	0.532	0.446
4	Saranggani	0.529	0.494	0.516	0.448
5	Lanao del Sur	0.442	0.419	0.464	0.480
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	0.470	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

* Data lacking for the provinces of Zamboanga Sibugay and Compostela Valley

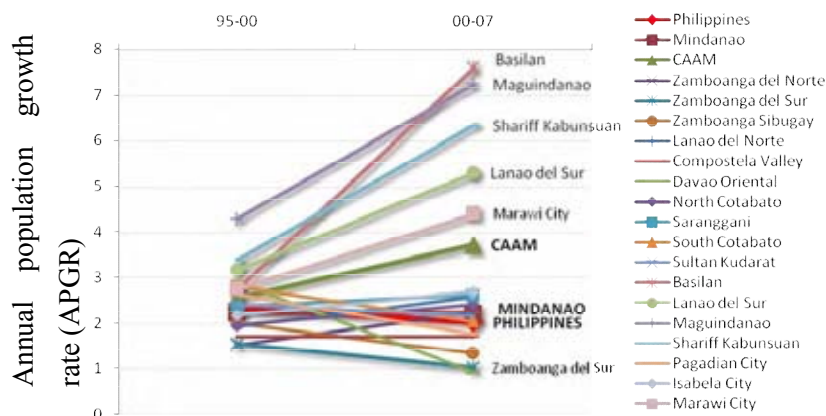
** Philippine Human Development Report (UNDP)

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 0.771 according to HDR2007/2008, almost at the threshold of moving from medium to high development category (refer to Table 3.1-2).

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 the bottom 10 provinces belonged 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).

3.1.5.2 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 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.



Source: NSO

Figure 3.1-1 Comparison of Annual Population Growth Rate (APGR)

Population growth in CAAM, between 1995 and 2000, and 2000 and 2007, shows an uphill trend compared to the Philippines’ slightly decreasing rate while Mindanao’s APGR is almost in a plateau. This is indicative that the rate of increase in population was higher in CAAM than in both Mindanao and the Philippines. Under the assumption that expected the CAAM catchment population is increasing, the lack of prompt intervention such as the implementation of the SEDP would lead to a larger disparity between the increasing need of the people and the gradual provision of sectoral interventions, with basic social services in particular.

All the CAAM provinces posted an increasing population trend (refer to Figure 3.1-1) between 1995 and 2007 which illustrates that the overall total CAAM population remained on

an upswing. Based on the 2007 statistics, the total population of CAAM was placed at 6,516,313. This implied an increase of 2,071,152 persons over a 12 year-period (1995-2007) at an average annual population growth rate for the period of 3.24%. The provinces of Maguindanao (including Sharriff Kabunsuan) and Basilan both under the ARMM region registered the highest and fastest growth in population. From an aggregate population of 889,188, it almost doubled to 1,708,194. Zamboanga del Sur showed the slowest growth at an APGR of 1.25% increasing its population by a mere 44,397 within the same time period. Since only one municipality under Davao Oriental (Tarragona) is part of CAAM, this has posted the lowest absolute growth, increasing its population by a mere 4,584.

At 2007 figures, none of the CAAM cities and municipalities breached the PHP 1 million mark. However, Lanao del Sur with a population of 961,153 posted the highest population followed closely by North Cotabato with 847,066 persons (refer to Table 3.1-3).

3.1.5.3 Population Density in CAAM

The average population density of the Philippines is 296 persons per sq.km.. In Mindanao the population density is lower than CAAM, densities at 211.5 and 234 per sq.km. Among the three cities in CAAM, Marawi city has the highest population density with 2,027 individuals per sq.km whilst in the provinces; South Cotabato is the densest at 334 per sq.km (refer to Table 3.1-3).

Table 3.1-3 Population Distribution and Density

AREA NAME	LAND AREA (km ²)	POPULATION			POPULATION DENSITY		
		1995	2000	2007	1995	2000	2007
Philippines*	299,404.00	68,616,536	76,504,077	88,574,614	229	255	296
Mindanao*	102,043.00	16,205,487	18,133,794	21,582,540	159	178	212
CAAM*	55,700.47	4,421,947	5,044,293	6,516,313	159	182	234
Zamboanga del Norte	2,388.27	160,481	173,089	202,112	68	73	86
Zambonga del Sur	1,565.99	275,319	297,595	319,716	176	190	205
Zamboanga Sibugay	3,457.64	450,340	497,239	546,186	131	144	158
Lanao del Norte	12,406.79	243,774	268,367	321,217	20	22	26
Compostela Valley	420.13	56,780	61,801	69,656	136	148	166
Davao Oriental	300.76	19,779	22,846	24,363	66	76	81
North Cotabato	4,732.70	649,109	715,668	847,066	138	152	179
Sarangani	2,475.62	228,046	256,611	307,649	93	104	125
South Cotabato	567.87	142,930	164,149	189,215	252	289	334
Sultan Kudarat	5,097.94	452,365	510,151	593,098	89	100	117
Basilan	2149.46	227,008	259,796	434,479	106	121	203
Lanao del Sur	12,947.28	571,922	669,072	961,153	45	52	75
Maguindanao	2,911.70	352,751	435,254	710,829	122	150	244
Shariff Kabunsuan	3,633.23	614,557	712,655	989,574	170	197	273
Marawi City	87.55	114,389	131,090	177,391	1,307	1,498	2,027
Isabela City	223.73	65,557	73,032	87,985	294	327	394
Pagadian City	333.80	125,182	142,685	161,312	376	428	484

* No land area data for the following Municipalities: Hadji Muhtamad and Tabuan-Lasa, Basilan; and Mangudadatu and Pandag, Maguindanao
Source: National Statistics Office and Lands Management Bureau

The northern part of CAAM area is relatively less densely populated than its northern counterpart as reflected in Figure 3.1-2. Lanao del Norte, Lanao del Sur, Davao Oriental and Zamboanga del Norte have the lowest average population density at 26, 75, 81 and 86 populations per sq.km. For reference, 2000 figures illustrate that Metro Manila's population density is 15,617 persons per sq.km while Metro Cebu is 2,280 and Davao City is 947. Density patterns among municipalities tended to vary, however, and most still have a density that is below national average.

3.1.5.4 Urban Versus Rural

It is estimated that 48% of the national population are living in urban areas. Tawi-tawi had the highest urban population with 27% while Lanao del Sur had the lowest at only 18%. Misamis Oriental registered a high urban population with 53% while Lanao del Norte had the lowest at only 20%. Davao del Sur registered a high urban population with 44% while Compostela Valley had the lowest at only 26%. South Cotabato had a higher than the national average with 49% of the population living in urban areas while Sarangani had merely 16% of its population classified as living in urban areas.

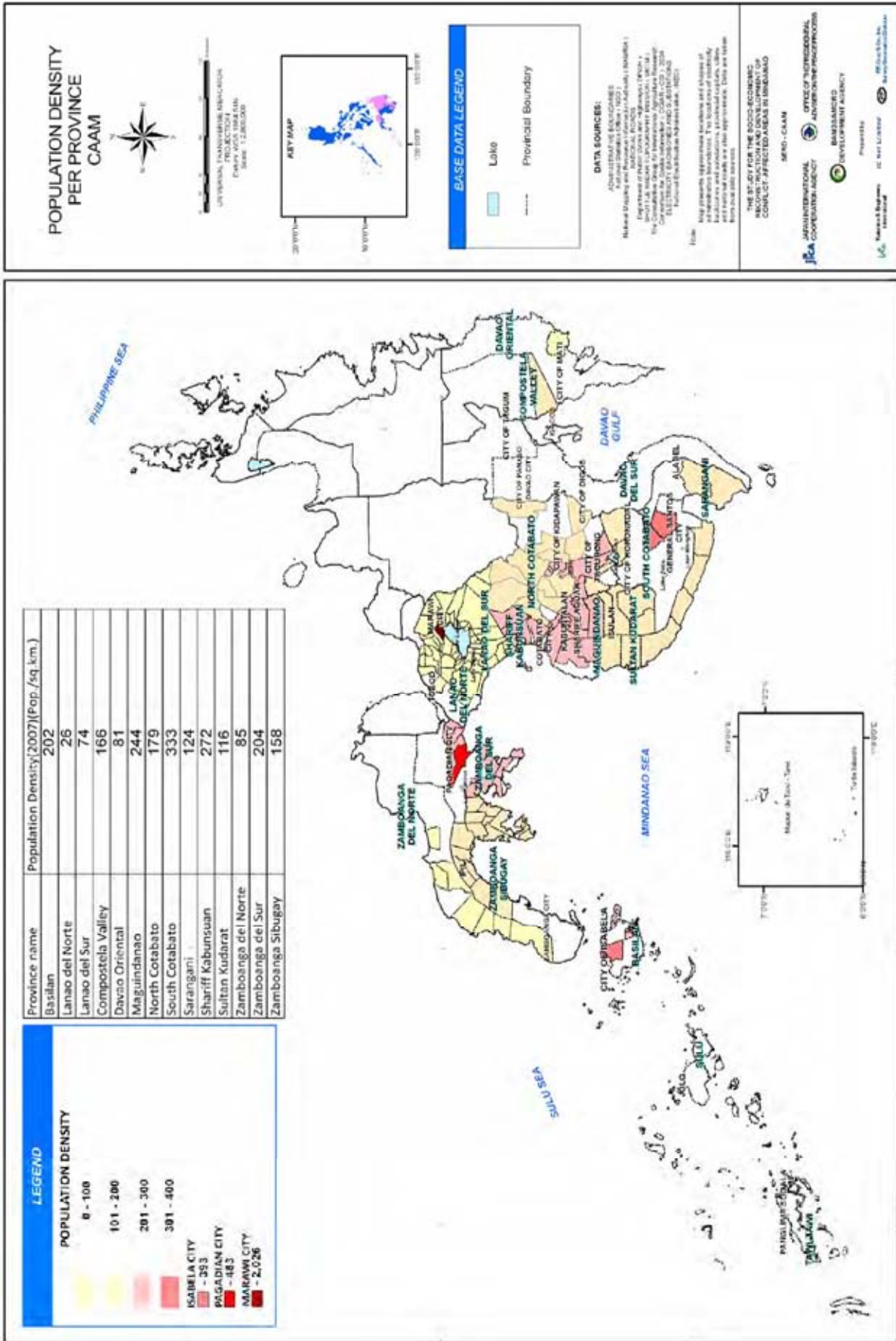


Figure 3.1-2 population Density per Province CAAM

3.1.5.5 Projected Population in the Philippines, Mindanao and CAAM

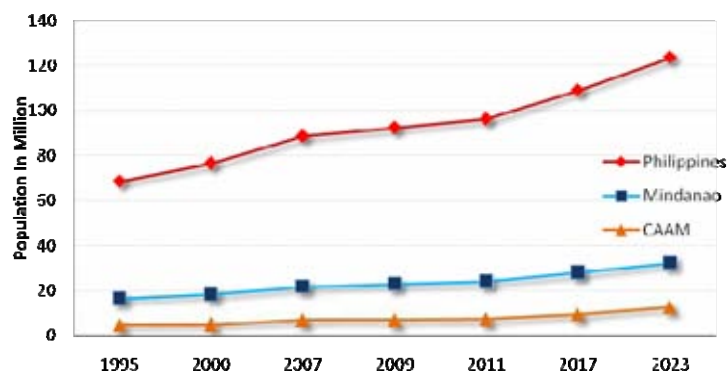
The population trend determined from the recent past may be used to model influences for the future quality of life. It is necessary, therefore, to determine the population size and characteristics, at city and municipal levels, which may serve as a guide for estimating future needs and potentials in the Immediate Term plan, Short-term, Mid-term and long range planning phases (see Table 3.1-4).

Table 3.1-4 Projected Population: 2009, 2011, 2017 and 2023

Administrative Unit	ACTUAL POPULATION			PROJECTED POPULATION			
	1995	2000	2007	2009	2011	2017	2023
Philippines	68,616,536	76,504,077	88,574,614	92,360,814	96,308,858	109,194,730	123,804,699
Mindanao	16,205,487	18,133,794	21,582,540	22,683,315	23,840,232	27,677,214	32,131,742
CAAM	4,445,161	5,044,293	6,516,313	6,403,220	6,937,103	9,052,355	12,443,194

Data sources: 1995 Census of Population, National Statistics Office; 2000 Census of Population and Housing, National Statistics Office; 2007 Census of Population, National Statistics Office.

It is assumed that the projected population distribution in CAAM will replicate the national levels and using the 2000-2007 Average Annual Population Growth Rate of CAAM of 3.64%, population projections were computed. The projection does not, however, account for massive population movement or migration outside CAAM.



Source: same as above.

Figure 3.1-3 Population Trend: Year 1995, 2000, 2007, 2009, 2017, and 2023

As shown in Table 3.1-4, Figure 3.1-4 and Table 3.1-5, if the growth rate of 3.64% persists, allowing for a slight downturn in population growth between 2007 and 2009, the CAAM population is expected to grow, to 6.9 million in 2011 to 9.05 million in 2017, and will grow to 12.43 million by 2023. .

3.1.5.6 Projected Population in CAAM by Province

Table 3.1-5 Projected Population of CAAM Provinces, 2009, 2011, 2017, 2023

	AREA	PROJECTED			
		2009	2011	2017	2023
1	Zamboanga del Norte	211,545	221,545	255,331	295,703
2	Zamboanga del Sur	326,372	333,183	354,589	377,540
3	Zamboanga Sibugay	561,465	577,370	629,143	687,707
4	Lanao del Norte	338,739	357,511	422,501	503,492
5	Compostela Valley	72,078	74,585	82,640	91,565
6	Davao Oriental	24,815	25,275	26,707	28,219
7	North Cotabato	890,274	936,378	1,094,558	1,288,808
8	Saranggani	324,198	341,719	400,712	470,781
9	South Cotabato	197,124	205,393	232,549	263,634
10	Sultan Kudarat	622,121	654,158	773,243	940,955
11	Basilan	317,997	356,134	501,763	710,300
12	Lanao del Sur	1,065,960	1,182,196	1,612,631	2,199,786
13	Maguindanao	802,776	947,383	1,643,539	3,120,864
14	Shariff Kabunsuan	554,962	626,405	907,640	1,329,157
15	Pagadian City	167,067	173,028	192,217	213,535
16	Isabela City	92,794	97,867	114,808	134,683
17	Marawi City	193,403	210,861	273,270	354,150
	CAAM	6,403,220	6,937,103	9,052,355	12,443,194

Data sources: 1995 Census of Population, National Statistics Office; 2000 Census of Population and Housing, National Statistics Office; 2007 Census of Population, National Statistics Office

Among the provinces in CAAM (see Table 3.1-5), the population of the conflict-affected areas in Zamboanga Peninsula is expected to grow at a more moderate pace. The 2007 figure of half a million in Zamboanga Sibugay will increase to about 120,000 giving a 2023 population of 687,707.

In 2007, Lanao del Norte was home to more than three hundred thousand individuals affected by conflict of a total population of 3,338,739. In the following two years (2009), almost 20,000 people are expected to be added to the population giving 357,511. It will continue to exhibit growth equivalent to a predicted population of 503,492 in 2023.

Across the conflict-affected provinces of Compostela Valley and Davao Oriental, population is expected to grow in the years to come with figures of 91,565 and 28,219, respectively in 2023.

North Cotabato passed the 800,000 mark with 890,274 persons in 2009 while Sultan Kumara registered a population of 622,121. In the same year, Sarangani and South Cotabato populations were 324,198 and 197,124, respectively. The four provinces are expected to grow from 2007 to 2009, 2011, 2017, and 2023. North Cotabato will breach the 1.2 million mark by 2023. Sarangani 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 CAAM areas, provinces in ARMM are considered to be the fastest growing provinces. The highest gainer would be Maguindanao with a projected population over 3 million by 2023. 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 and Lanao del Sur 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. Elsewhere, Basilan will record 710,300 population. Lanao del Sur and Maguindanao remain the largest driver of population growth in the CAAM becoming large urban centers in the near future.

By 2023, the three (3) cities of Pagadian, Marawi and Isabela will 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 by the same year. Among the three, Marawi City will register the highest population at 354,150 in 2023.

About 67 municipalities will have small towns with a population of less than 50,000; 62 medium towns with a population ranging from 50,000 to 100,000; 37 large towns or urban centers with a projected population between 100,000 and 400,000 persons.¹ The information is presented in a visual form in Figure 3.1-4. The town of Pantukan in Compostela valley is considered and classified as medium town but it shall exceed 100,000 population before the middle of the decade thus can be re-classified as a large town or urban center.

The small and medium towns serve a correspondingly smaller local market and it is important to emphasize that population sizes are intended as a guide only. Population sizes may be considered as fuzzy and static indicators. Thus, there is a need for additional analytical support and further confirmation based on local knowledge of the flows of goods and services.

¹ 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, Cabanatuan Batangaas; 100k – 400 k : largest towns/cities; urban centers; 50k- 100k –medium towns; Less than 50k:, small towns, rest of the settlements (Regional Physical Framework Plan).

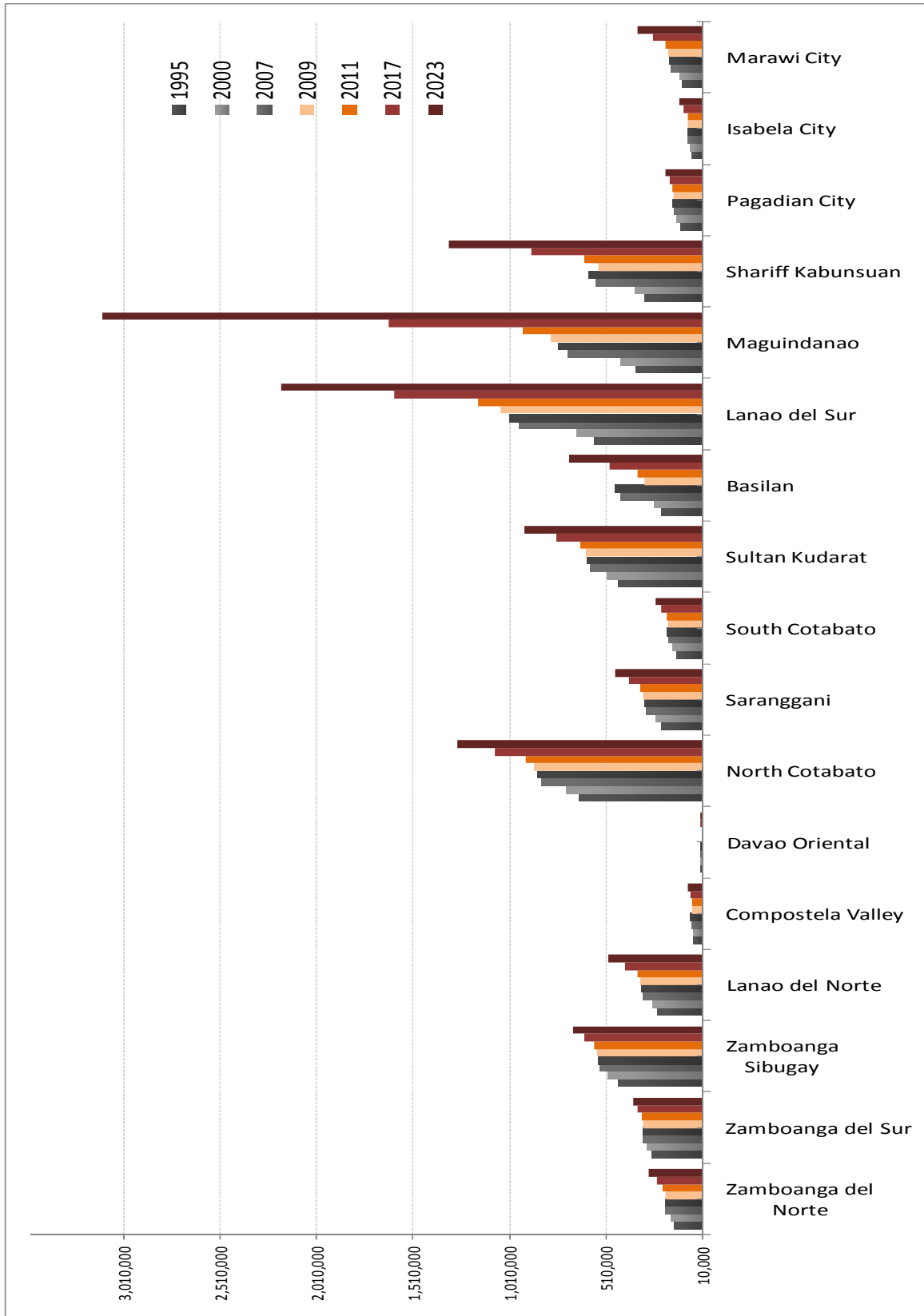


Figure 3.1-4 Histogram of CAAM Provinces and the Cities of Pagadian, Marawi and Isabela

3.1.6 2007 GRDP and Per Capita GRDP Estimates of CAAM

3.1.6.1 2007 GRDP Estimates in CAAM

The GRDP Estimates within CAAM is calculated in the context of the population in CAAM. While CAAM covers almost all of ARMM, the coverage of CAAM in the other four regions varies from region to region.

Roughly, conflict affected areas in Mindanao are identified as 50% of ARMM, 20% of Region IX, 19% of Region XII, 9% of Region X and 2% of Region XI.

In 2007, the CAAM recorded a total of PHP 53 million in GRDP. In Zamboanga Peninsula, the CAAM area registered PHP 14 million in GRDP. The CAAM area in Northern Mindanao posted a total of PHP 5 million, PHP 1 million in Davao Region, PHP 24 million in SOCCSKSARGEN, and PHP 8 million in ARMM. (See Table 3.1-6)

While Zamboanga Peninsula and SOCCSKSARGEN comprise only 20% and 19% of CAAM, respectively, their GRDP is higher than ARMM, which covers more area and accounts for 50 % of CAAM.

If CAAM is considered as one region, its GRDP is higher than the actual GRDP of ARMM, Zamboanga Peninsula and SOCCSKSARGEN. This implies that CAAM has great potential for further development.

Table 3.1-6 GRDP Estimates in CAAM 2007

CAAM	GRDP (PHP) 2007
Region 9-Zamboanga Peninsula	14,304,454
Region 10-Northern Mindanao	5,224,804
Region 11-Davao Region	1,396,865
Region 12-SOCCKSARGEN	24,152,201
ARMM	7,978,407
Total	53,056,731

Sources: NSCB

3.1.6.2 2007 Per Capita GRDP Estimates in CAAM

In terms of Per Capita GRDP, Northern Mindanao, which covers 9% of the Conflict Affected Areas, registered approximately PHP 17,103, the highest per capita GRDP among the Regions under CAAM, ahead of the Davao Region, SOCCKSARGEN, Zamboanga Peninsula and lastly, ARMM. (See Table 3.1-7)

The value for GRDP of ARMM within CAAM reflects the urgency of raising its economic standard to a par with the rest of Mindanao, and in the long term with the rest of the Philippines.

Table 3.1-7 Per Capita GRDP in CAAM 2007

Regions	GRDP Per Capita (In thousand)
Region 9-Zamboanga Peninsula	10,859
Region 10-Northern Mindanao	17,103
Region 11-Davao Region	14,857
Region 12-SOCCKSARGEN	12,469
ARMM	2,886
Total	11,616

Source: NSCB (2007)

3.1.7 Target GRDP Outputs of CAAM

The growth rate of 5.49% is used in determining the GRDP Targets of CAAM up to 2023. It is the average Geometric Growth of CAAM from 2002-2007. With the growth assumptions of -1% for low and +1% for high, using the 5.49% as trend, 4.49% is used for the low projection and 6.49% for the high projection.

It has been further assumed that, every member of the population has an equal contribution to the GRDP in every region and the trend will continue for the next five years (2002-2007). This assumption ensures that the economic indicators that affect the production of goods and services remain the same and that prices are constant.

The CAAM is expected to have improvements from 2007 up to 2023, the years covered by the SEDP. If the CAAM can sustain the 5.49% annual growth rate or better it, its economy will exhibit a progressing trend during the period. In 2009, it will attain an increase of PHP 59 million from PHP 53 million in 2007, climb to PHP 90 million in 2017, and will peak at PHP 125 million in 2023. Moreover, either at low growth (4.49%) or high growth (6.49%), CAAM's economy will exhibit a progressing trend. (see Table 3.1-8 and Figure 3.1-5)

Table 3.1-8 GRDP Targets in CAAM

	2007	2009	2011	2017	2023
Low (-1%)	53,056,731	57,928,189	63,246,924	82,316,668	107,136,180
Trend (2002-2007)	53,056,731	59,040,562	65,699,260	90,529,572	124,744,227
High (+1%)	53,056,731	60,166,970	68,230,067	99,501,301	145,104,781

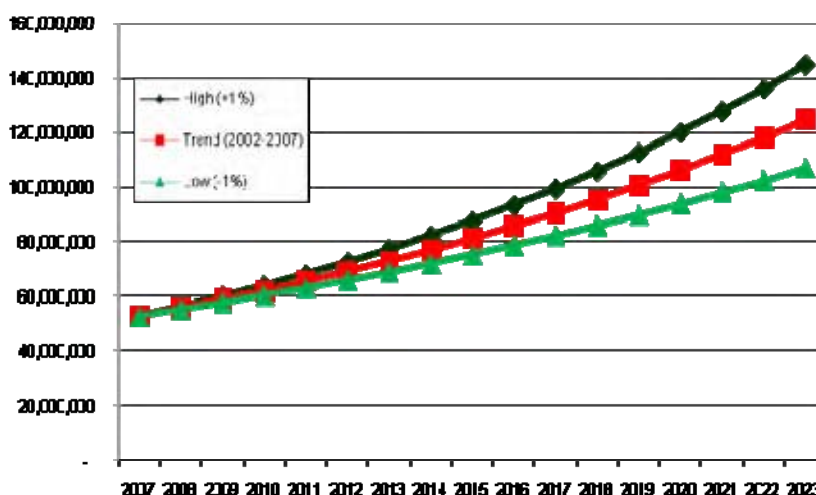


Figure 3.1-5 Target GRDP Outputs of CAAM

3.1.8 Agricultural Production

The CAAM's economy, similar to Mindanao's overall economic situation, has great potential for growth. The economic situation of CAAM may be estimated from the performance of Mindanao as a whole as well as from the performances of each province which includes CAAM municipalities. CAAM's economy is likely to continue its significant progress due to sustained growths in the agriculture sector and service industries 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 CAAM provinces, are outlined below.

3.1.8.1 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 3.1-9 presents the total agricultural production of the province by major commodity.

Table 3.1-9 Zamboanga del Norte, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Rice (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	5.0
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 3.1-6. 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 developing the chicken industry should be explored particularly in producing and exporting Halal chicken.

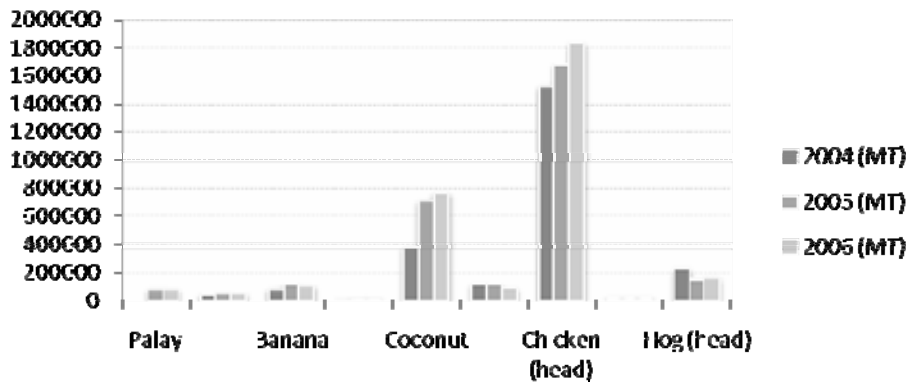


Figure 3.1-6 Agricultural production of Zamboanga del Norte

Although, the province has experienced decreasing fish farming, it is still pursuing the processing of fish products. One of the growing industries offering potential for the province's economic growth, particularly in Dipolog is bottled fish. Today, there are more than 70 different kinds of bottled fish products and at least 13 sardine processing enterprises. Bottled fish are marketed locally and are exported to USA, Canada, Italy and other Asian countries.

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

3.1.8.2 Zamboanga del Sur

The major economic activity of the province is agriculture. 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 3.1-10 presents the total agricultural production of the province by major commodity and Figure 3.1-7 shows the graphical representation of the production behavior of the major crops from 2004 to 2006.

Table 3.1-10 Zamboanga del Sur, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-06)
Rice (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

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

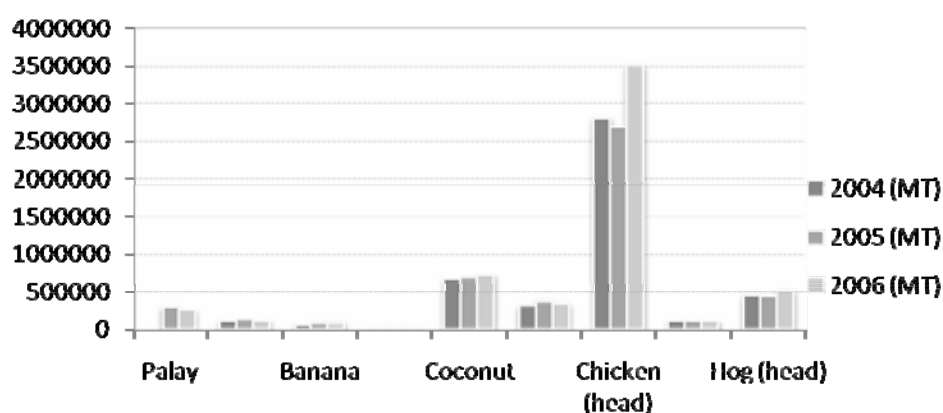


Figure 3.1-7 Agriculture production of Zamboanga del Sur

Only seaweed production increased due to the recent higher demand in the export market. In addition, mining industries for marble, sand and gravel also contributed to the province's total output. However, the quality of the marble products needs to be improved in order to compete with other producers. It is worthy of note that this province produced the highest output compared to Zamboanga del Norte and Sibugay.

3.1.8.3 Zamboanga Sibugay

The province is composed of agricultural, aquaculture, natural and mining resources. Zamboanga Sibugay's 766 kilometers of coastal waters have ample marine resources. Its six major bays, 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 3.1-11 presents the total agricultural production of the province by major commodity.

Table 3.1-11 Zamboanga Sibugay, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Rice (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

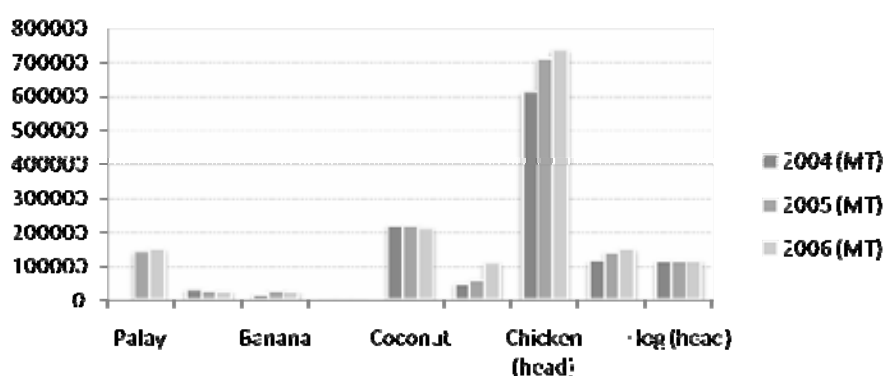


Figure 3.1-8 Zamboanga Sibugay, Total Agricultural Production by Commodity, 2004-2006

Palay and mango exhibited a positive growth rate in the agricultural sector. Other high value commercial crops like mango, banana, calamansi, lanzones and rambutan are also widely grown in the province. 59% of the total land area of 322,830 hectares is devoted to agriculture. The province of Zamboanga Sibugay is also regarded as the food basket in the Zamboanga Peninsula.

The fish sector performed very well with almost 75% growth rate. Agar-agar farms have become one of leading sources of alternative income among residents and marginal fishermen. Reports also show that seaweed farming is capable of generating at least 2 million metric tons of produce annually². The 26,000 hectares of fishpond areas have also contributed to the strengthening of the province's aqua-marine industry and gained respect within the domestic and export markets.

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, and set in place infrastructure support systems to facilitate the accessibility of raw materials, manpower and products.

² www.sibugay.gov.ph

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 one of the highest at 40%. Hence, there are still many development initiatives to be planned and implemented in the area to capitalize on the abundant resources and the promising and emerging industries, thereby achieving sustainable economic growth.

3.1.8.4 Lanao del Norte

Among the provinces of Northern Mindanao, Lanao del Norte is considered to be one of the most vulnerable to political instability as a result of the peace and order situation brought about by the MILF in some areas of the province. Despite the possible insurgencies, the economic activity of the province is still developing continuously to alleviate poverty and low living standards of the residents.

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 and is a major driver of the province's economic growth.

Agriculture plays an important source of livelihood for the province as indicated by the positive performance of agricultural production. For palay and corn, Lanao del Norte ranked second to Bukidnon with 134,751 MT and 193,062 MT production, respectively in 2006. The province is also 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 3.1-12). A further 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 3.1-12 Lanao del Norte, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-06)
Rice (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

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

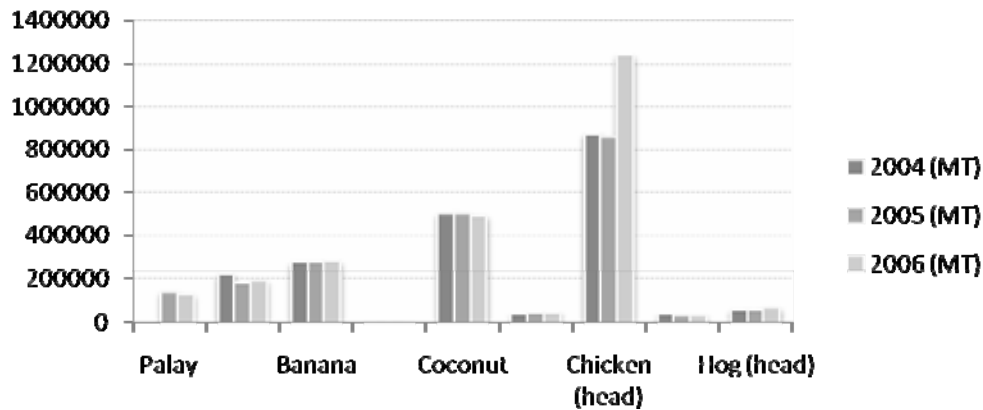


Figure 3.1-9 Lanao del Norte, Total Agricultural Production by Commodity, 2004-2006

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

For the industry sector, another potential opportunity of the area is its capacity to generate renewable energy through hydroelectric power utilizing Maria Cristina Falls and other rivers. Appropriate facilities and equipment need to be provided to maximize the benefit of this resource by providing electricity to neighboring provinces and regions, thus creating additional income and economic activity for the province.

Even with the potential for agriculture and economic growth, the poverty incidence remains at 43.2%. This indicates that there is a need to further develop the area, to harness its potential; to improve the living standards of the people by producing food, generating employment and developing products for sustained economic growth.

3.1.8.5 Davao Oriental

Davao Oriental occupies the largest land area among the provinces in Region XI, which, in turn, represents 26% of the total land area of the region. The province’s major economic activity is agriculture producing major crops such as: corn, banana, palay, abaca, root crops, coffee, tobacco, vegetables and fruits. 70% of the agricultural land in Davao Oriental is planted with coconut, and they are the top producer of coconut in the region with 1,012,963 MT production in 2006 (Table 3.1-13) and are also considered as the main producer of copra. In addition, the province is also a major producer of mangoes and abaca.

Table 3.1-13 Davao Oriental, Total Agricultural Production by Commodity, 2004-2006

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Rice (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

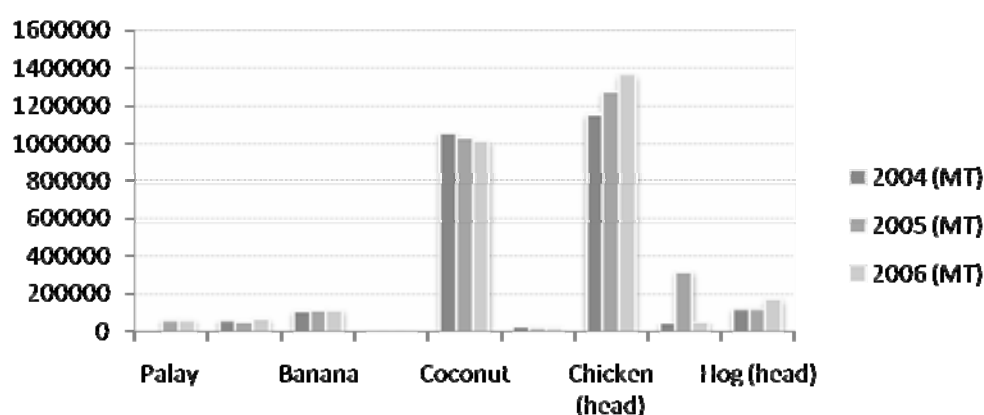


Figure 3.1-10 Davao Oriental, Total Agricultural Production by Commodity, 2004-2006

The province has suitable areas for fishponds and it is second to Davao del Sur in terms of total fish production from 2004 to 2006. The total fish production of the province in 2006 was 17,486 MT.

Given the capacity of the province to produce large amounts of coconut and fish products, there is a need to harness this potential. For the coconut industry, the potential areas for investment is the processing and packaging of coconut into industrial and consumer products. The establishment of a coconut plant is also being explored by the local government as well as welcoming possible investors for coconut processing. For fishery, the provincial government believes that with Davao Oriental's longest coastline in Region XI (445 km) there is great potential in the fishing industry. However, investors are needed to develop a competitive industry.

To maximize the province's potential and further develop the industry sector the local government is giving priority to, infrastructure development to drive and sustain economic

activity and are contributing to further agricultural development, mineral development and tourism.

3.1.8.6 Compostela Valley

Compostela Valley's major economic activity is agriculture. 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 recorded in 2006 and it is growing at a rate of 14.2% from 2005 to 2006 (Table 3.1-14). The province is also enriched with forest resources including commercial timber species, and mineral resources including gold, copper, manganese, chromite, bentonite, sand and gravel.

Table 3.1-14 Compostela Valley, Total Agricultural Production by Commodity, 2004-06

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Rice (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

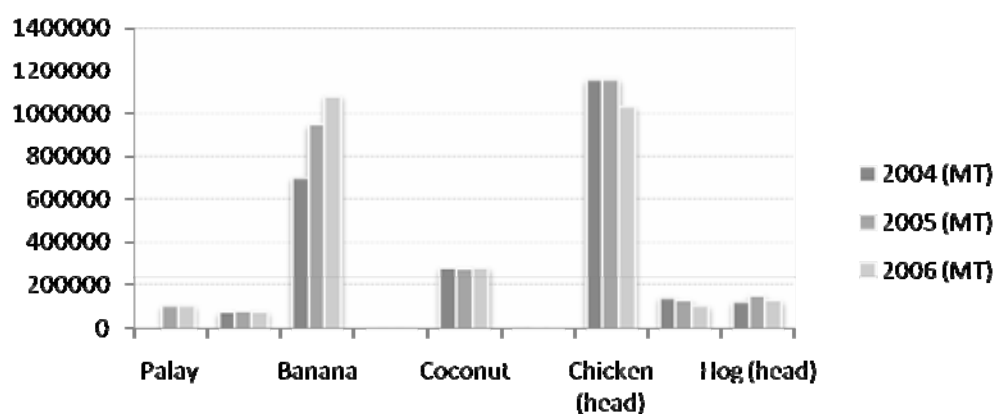


Figure 3.1-11 Compostela Valley, Total Agricultural Production by Commodity

Industrial development has commenced in the province with the agro-industry slowly nearing its potential. The production and marketing of raw materials are main industries with smaller processing industries providing support. Export oriented industries are concentrated on the production of cavendish bananas with some 14 banana plantations involved.

An emerging industry in the province, is rubber processing with plants situated in Monkayo, New Bataan and Laak. 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. It continues to be the main supplier of raw materials of coconut products to the other provinces in the region.

The mining industry dominates the industrial development in terms of employment, income generation and attracting commercial establishments to the region. Despite the influence this industry has had on the growth of the urban central business districts of some municipalities, the technical and legal hindrances continue to obstruct the full development potential. The province is also served by small and medium scale mining operations and the local governments are working towards improved working conditions and the elimination toxic discharges. Other emerging industries in the province includes: furniture making, cement block manufacture, biscuit factories, and rice mills and corn mills.

To enable the emerging and new industries to develop, the province needs to invest in appropriate support infrastructures and provide a conducive business environment.

The existing resources, and industries in the area, if properly presented, may attract potential investors to drive the economic growth of the region. In particular, Davao Oriental and Compostela Valley can greatly contribute to the region's total output and growth with proper development. However, despite the foregoing, poverty incidence in the two provinces remains high at 40%. Thus there is a need to prioritize and plan the development of the area in order to achieve an improvement in living standards, maximize the benefit from the resources, and sustain economic growth.

3.1.8.7 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 produces the largest amount of rice (palay) in Mindanao with a total production of 420,783 MT in 2006 (growth rate of 3.1% (2005-2006)). It is also one of the Philippines leading producers of raw and semi-processed rubber, in addition to industrial rubber trees. Table 3.1-15 shows that all of the major agricultural commodities increased from 2004-2006.

Table 3.1-15 North Cotabato, Summary of the Total Agricultural Production by Commodity

COMMODITY	2004 (MT)	2005 (MT)	2006 (MT)	GROWTH RATE (2005-2006)
Rice (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	3.0
Duck (head)	289,135	305,200	325,977	6.8
Fish	5,184	6,300	8,886	41.0
Hog	217,600	215,490	204,620	-5.0

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

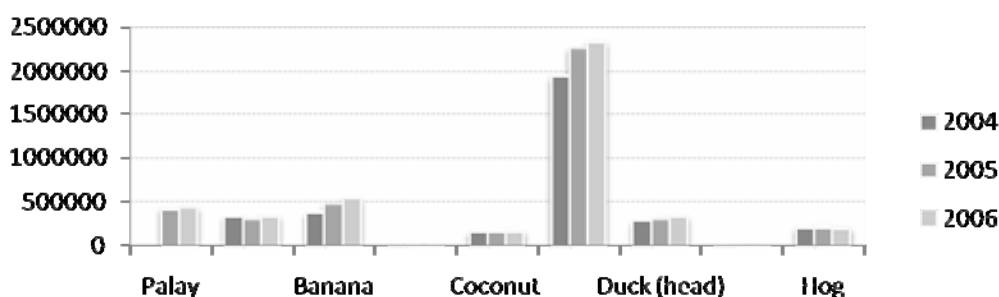


Figure 3.1-12 North Cotabato, Summary of the Total Agricultural Production by Commodity

The major natural assets include; Mt. Apo, the Philippines 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; the Liguasan Marsh twith plentiful freshwater fish, organic fertilizer and is a potential source of natural gas. Potential investment opportunities include agricultural based industries, industrial plantations, manufacturing, tourism and associated infrastructure facilities, fruit industries, and the provision of basic services. The key to the development of the locality is through infrastructure development and maintenance including; the paving of key provincial and barangay road; the rehabilitation of farm-to-market roads; the construction of spring development projects, communal irrigation projects, bridges, flood control/drainage and the installation of potable water systems.

3.1.8.8 South Cotabato

44.47% 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 3.1-16 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 3.1-16 South Cotabato, Summary of the Total Agricultural Production by Commodity

COMMODITY /PROVINCE	2004	2005	2006	2005-2006 Growth rate
Rice (Palay)	-	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	12.0
Duck (head)	260,631	282,768	36,221	1,011.3
Fish	206,982	171,699	185,926	8.3
Hog	217,850	209,060	220,290	5.4

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

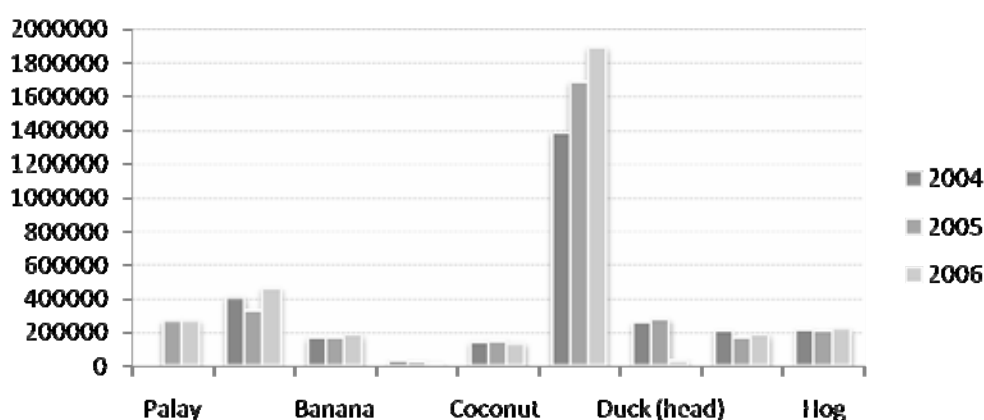


Figure 3.1-13 South Cotabato, Summary of the Total Agricultural Production by Commodity

Development and investment opportunities are perceived in the agricultural sector (particularly in high value crops), fish production, forestry and timber based industries, manufacturing industries and the fruit industry.

3.1.8.9 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 also suitable for fishponds. There are large deposits of precious metals and mineral resources that can be mined in the area. As presented in Table 3.1-17 among the major commodities palay, banana, mango, chicken, and fish exhibited an increased production from 2004 to 2006.

Table 3.1-17 Sarangani, Summary of the Total Agricultural Production by Commodity

COMMODITY PER PROVINCE	2004	2005	2006	GROWTH RATE (2005-2006)
Rice (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

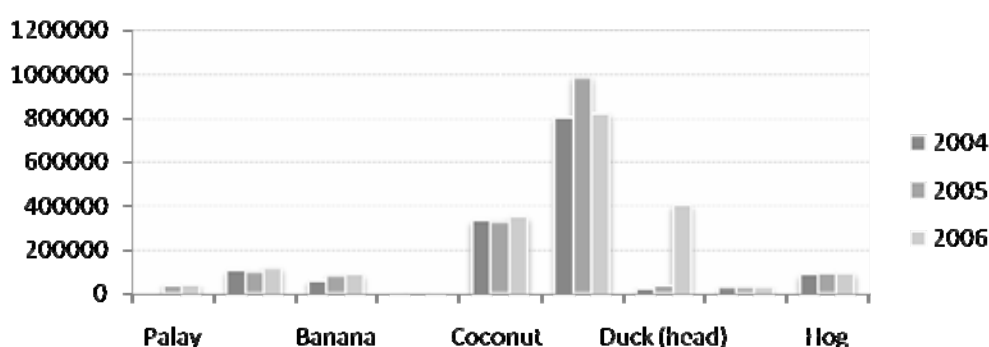


Figure 3.1-14 Sarangani, Summary of the Total Agricultural Production by Commodity

Development and investment opportunities exist in aqua marine production, real estate, eco-cultural tourism, abaca and coconut plantations.

3.1.8.10 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 grain processing complex in the Philippines with more than 200 rice mills. Fishing is a fast growing industry. The tuna fish caught along the coast of the Celebes Sea are of high quality and are exported to Japan and Europe. Cottage industries, including crafts made of rattan and other types of wood are an important economic activity of the province.

Table 3.1-18 Sultan Kudarat, Summary of the Total Agricultural Production by Commodity

COMMODITY / PROVINCE	2004	2005	2006	2005-2006 Growth rate
Rice (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	15.0
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

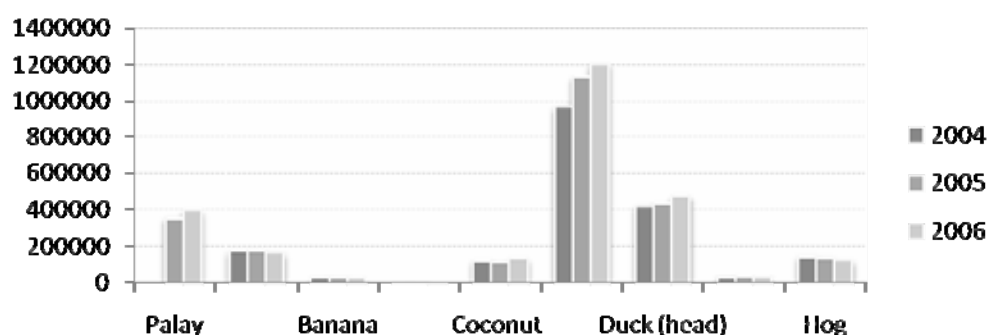


Figure 3.1-15 Sultan Kudarat, Summary of the Total Agricultural Production by Commodity

The region exhibits potential for development as observed in the increasing GRDP. However, the positive growth in GRDP has not been reflected in an improved economic condition as reflected by the high incidence of poverty. The region has under developed its potential as a result of the political conflicts which inhibit the region and its provinces from fully developing and alleviating poverty.

3.1.8.11 Basilan

About 70 %, of the province’s land area is devoted to agriculture and planted exclusively with coconut, rubber, and coffee. Other agricultural crops include palay, corn, cacao, cassava, African oil palms and black pepper. The provincial waters are home to 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 an Islamic separatist group, the Abu Sayyaf. The Basilan hostage crisis of 2001 raised questions about the economic future of Basilan. Continuing operations by the Abu Sayyaf hinder prospects for investment and tourism.

Should the situation stabilize the development and investment opportunities in Basilan are centered around the agricultural and marine resources, with the production and processing of rubber, coconut, coffee, and marine products being the main avenues. Existing specific business ventures include rubber-wood manufacturing for furniture, tiles, gloves, conveyor belts and latex and coconut processing.

Table 3.1-19 Basilan, Summary of the Total Agricultural Production by Commodity

COMMODITY /PROVINCE	2004	2005	2006	2005-2006 Growth rate
Rice (Palay)		3,868	3,238	-16.3
Corn	1,838	1,779	1,886	6.0
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

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

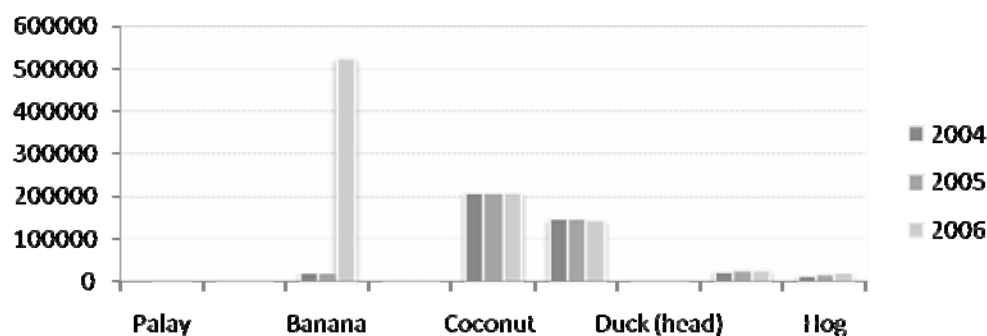


Figure 3.1-16 Basilan, Summary of the Total Agricultural Production by Commodity

3.1.8.12 Lanao del Sur

The province's land area of 4,215 sq. km is surrounded by lakes and rivers and has a topographical terrain of plateaus, volcanoes and mountain ranges. The province is 65.6% forests. Investment and development opportunities for the province include tilapia culture, crab fattening, establishing plantations and tree nurseries, and ecotourism.

Table 3.1-20 Lanao del Sur, Summary of the Total Agricultural Production by Commodity

COMMODITY / PROVINCE	2004	2005	2006	2005-2006 Growth rate
Rice (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	1.0
Hog	1,970	2,240	2,670	19.2

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

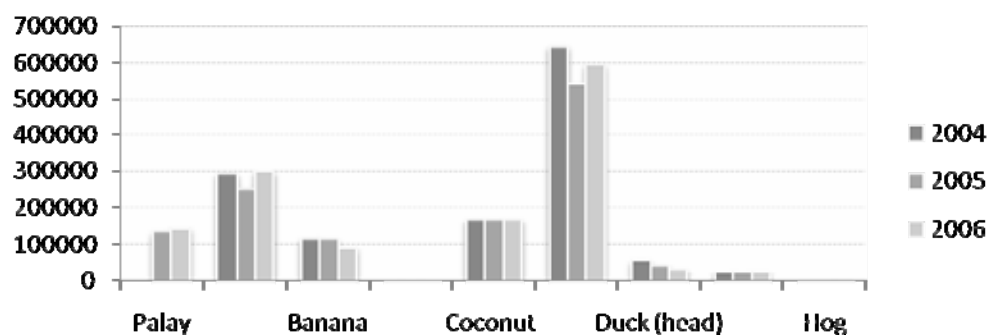


Figure 3.1-17 Lanao del Sur, Summary of the Total Agricultural Production by Commodity

3.1.8.13 Maguindanao

The province of Maguindanao is predominantly agricultural and produces rice, corn, coconut, banana, and cassava. Investment and development opportunity for the province is limited to agricultural development.

Table 3.1-21 Maguindanao, Summary of the Total Agricultural Production by Commodity

COMMODITY / PROVINCE	2004	2005	2006	2005-2006 Growth rate
Rice (Palay)		400,446	400,573	0.0
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

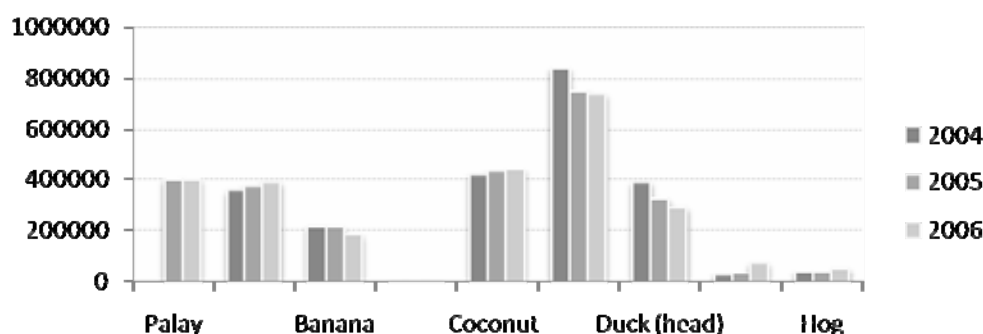


Figure 3.1-18 Maguindanao, Summary of the Total Agricultural Production by Commodity

3.1.9 CAAM Provinces Family Income and Expenditure

3.1.9.1 Zamboanga del Norte

The province is generally agriculture based, and employs its population in crop production, fishing, agro-processing and tourism. The employment rate of the province is 88.5%, although the visible underemployment is 29.6% not, 11.5%. The number of employed persons by industry type is presented in Table 3.1-22.

Table 3.1-22 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 is noted that almost half of the population (Table 3.1-23) still depend on agriculture for their livelihood. Analyzing the income and expenditure pattern of the population, it is observed that the annual family income is PHP 87,107. Table 3.1-20 presents the income distribution per expenditure items.

Table 3.1-23 Income Distribution in Zamboanga 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 on food and only a small portion is left for other non-food requirements, particularly education and health. These two items are equally important in terms of human development. But considering the limited income of the family, external assistance is needed to further improve the human welfare.

Despite the improving economy, the province still ranks second of the ten poorest provinces in the Philippines. The incidence of poverty decreased from 68.5% to 67.5% from 2003 to 2006, respectively but, the decrease was very minimal. This implies that around 67.5 % of the families in the total population have an income and expenditure of less than the minimum required to meet the basic food and non-food needs. The recorded annual per capita poverty threshold of the area is 13,947 pesos. The inability of the poor to meet basic food needs is also high with a subsistence incidence of 51 %. This indicates that 51% of the population has income less than the minimum requirement to meet their basic food needs.

3.1.9.2 Zamboanga del Sur

The total population of the province is 914,278, the highest among the provinces of Region IX. The annual growth rate of the population is recorded at 1.24% which is lower than the average region's growth rate. The province has the highest population and also the highest employment rate among the regions at 89.7% with visible underemployment of 10.3 %, and unemployment rate of 4.2 %. Of the employed population, the number of persons employed per industry group is presented in Table 3.1-24.

Table 3.1-24 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 employers in the province. Analyzing the income and expenditure, the average annual family income is PHP 88,701. Table 3.1-25 presents the distribution of expenditure.

Despite being an agriculture-based economy and having abundant resources, the province remains to be poor and unable to provide 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 activities to improve living standards for the population particularly those in the marginalized conditions.

Table 3.1-25 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%

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

The bulk of the family's income goes on food and only a small percentage goes to education and medical care. This indicates that social expenditure items could be a driver for improving human welfare and social development of the families.

Improvement in the economic activity of the province has resulted in a decreased incidence of poverty from 38.8% to 33.8%. This is lower than the poverty incidence of Zamboanga del Norte and may be attributed to the continuous improvement in the economic performance of the province as evidenced by the output of the local industries, which is a large contributor to the total regional output. Additionally, this indicates that the industries in the province have generated sufficient employment, wages and salaries to meet the basic needs of the family. The subsistence incidence among the population is 20.1%, which indicates that only 20.1% of the population is unable to meet their food needs. The province has a relatively low number of poor families but there is a continuous need to improve the industries to sustain employment and income, to maintain improved living conditions.

3.1.9.3 Zamboanga Sibugay

In the early stages of organization and development, the province's poverty incidence was decreasing rapidly from 50.3% in 2003 to 40.5% in 2006. The province substantially increased its capacity to meet the basic food needs with subsistence incidence decreasing from 33.4% in 2003 to 19.1% in 2006. This indicates that 80.9% of the population is able to meet their basic food needs 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.

Agriculture and service industries are the main sources of livelihood, in the area and the development on these industries may improve output and improve the income of its labor force. Mainstream development of this area should be socio-cultural sensitive to achieve sustainable benefits.

3.1.9.4 Lanao del Norte

Of the region's total population, Lanao del Norte only contributes 13% and is recorded as one of the lowest populated areas among the provinces of Region X. In the recent census, the province's total population was recorded as 538,283 with an annual growth rate of 1.80%. Within the labor force, the employment rate is 85.8% with visible underemployment of 23 %, while unemployment is at 14.2 %. Table 3.1-26 presents employment by industry sectors.

Table 3.1-26 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

Agriculture and service sectors are the main sources of livelihood in the province. The annual average family income is PHP 101,981 and Table 3.1-27 presents the expenditure distribution.

Table 3.1-27 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

Table 3.1-27 indicates that half of the income is expended on food while only a small portion is allocated for education and medical care. It is worthy of note that the expenditure on tobacco and alcohol is higher than on medical care considering the limited income received, there is a need to augment the family budget, either through government subsidies for education and healthcare or by increased wages.

The high employment rate is not reflected in the recorded poverty incidence of the province which is at 52.2% and higher than the average for the region. High poverty incidence implies that almost half of the population does not meet the basic food and non-food needs of the family. Given that a large portion of the families income is allotted for food, education and health are not given any priority and hence,, families living below the poverty threshold will not be able to provide better education and health care for their family members.

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 in conjunction with economic development in order to effectively alleviate poverty in the area. The LGUs, development agencies and funding institutions should provide assistance to help those below the poverty line to meet their basic food and social needs.

3.1.9.5 Davao Oriental

The province's population is increasing at a rate of 1.19% (lower than the average rate for the region), the population being recorded as 446,191 in 2000 and 486,104 in 2007. Davao Oriental is the lowest populated area in Region XI. Of the population, 86.9% are employed with visible underemployment of 32.5%, while unemployment is 13.1 %. The number of person employed per industry sector is shown in Table 3.1-28.

Table 3.1-28 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 for families in the province. In terms of income and expenditure, an average family's income in the province is PHP 94,328 and Table 3.1-29 shows the expenditure distribution..

Table 3.1-29 Expenditure Distribution in Davao Oriental

EXPENDITURE ITEMS	PERCENT DISTRIBUTION
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

From the expenditure pattern of the province, expenditure on food items is lower than expended in Regions IX and X. Expenditure for education and medical care, however, is higher than Regions IX and X which implies that the families living in this area are giving more importance to the social development of its family members.

Despite the high employment rate, the 2006 poverty incidence was high at 48.8% and is increasing when compared to 40.8 % in 2000 and 47.9% in 2003. This implies that the number of families living below the poverty threshold that cannot meet the basic food and non-food needs of the family is increasing. In contrast, the subsistence incidence has decreased from 29.2% in 2003 to 25.2% in 2006. This indicates that only 25.2% of the population could not meet their basic food needs. It is suggested that the other families living under the poverty threshold could not meet other non-food needs such as education and medical care which are both equally important for social development. Therefore, much assistance is needed to address the poverty in the province in conjunction with economic and social development initiatives to ensure sustainability through the wise use of its resources.

3.1.9.6 Compostela Valley

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

The province has a total population of 637,366 with an annual growth rate of 1.30%. It has the second lowest population in the region of Southern Mindanao. Among the population, 89.8% are employed with visible underemployment of 11.4%, and unemployment of 10.2%. Despite the high employment rate, poverty incidence has increased from 41.9% in 2003 to 47.9% in 2006. Subsistence incidence, on the other hand, is low and has decreased from 26.9% in 2003 to 24% in 2006. Thus almost half of the population are still living below the poverty threshold and are not able to meet the basic needs of the family. The food needs of the family were met by almost 76% of the population but non-food needs such as education and health were not met. The local government, development agencies and funding institutions should provide assistance to help those below the poverty line meet their basic food and social needs.

Based on the socio-economic data of the two provinces, the regional development will be best achieved if the social conditions are also addressed. Alleviating poverty is a requirement for achieving full economic growth in both the urbanized area and the rural areas and countryside.

3.1.9.7 North Cotabato

62% of the province labor force is engaged in agricultural related activities with a total employment of 108,000. The remaining 38% are employed in the service sector and industry related activities with 141,000 (32%) and 27,000 (6%) employment, respectively. Thus the main livelihood of the population comes from the agricultural sector.

The average annual family income of the province is PHP 82,098 with an annual average family expenditure of PHP 71,310.

As summarized in Table 3.1-30 a large portion of the family income (50%) was spent on food whilst only small percentages were allocated for education and medical care. From the percentage 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 was third in terms of the annual per capita poverty threshold of PHP 14,225 which is PHP 910 lower than the estimated annual per capita poverty threshold for the region. However, poverty incidence is the lowest in the region at 34.6%, which is 6.2% lower than the regional estimate. In general, North Cotabato remains poor in relation to the other provinces in the region.

Table 3.1-30 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
	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

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

3.1.9.8 South Cotabato

In South Cotabato, about 87 % of the province's labor force is engaged in agriculture and service related activities. This translates to a total employment of PHP 194,000 (44%) and PHP 189,000 (43%), respectively with only 58,000 (13%) employed in industry related activities.

This source of employment translated to an average annual family income of PHP 226,657 in 2000 which was 35% higher than 1997 (PHP 167,823). The annual average family expenditure in 2000 was PHP 102,388. Table 3.1-31 presents the distribution of family income.

Table 3.1-31 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
	1997	2000
Food	51.0	44.0
Rent	8.2	9.8
Transportation and Communication	3.2	5.4
Education	4.4	5.6
Medical care	2.5	2.8
Recreation	0.3	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

Over half of the budget was expended on food needs with the remaining income spent on other needs of the family.

From the consumption pattern provided in Table A6.6-10 it is evident that poverty is high in the province with a recorded an annual per capita poverty threshold of PHP 15,431 (PHP 1,206 higher than estimated for the region) and had a poverty incidence of 37.3%.

3.1.9.9 Sarangani

62% of the labor force is employed in agricultural related activities with a total employment of 108,000. The service sector accounts for 31% (54,000) and the the remaining 7% (11,000) is engaged in industry related activities.

From the 2000 statistics, the average annual family income of the province is PHP 73,294 with an annual average family expenditure of PHP 62,503. Table 3.1-32 presents the breakdown of family expenses.

Table 3.1-32 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
	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	0.2	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 on food while only a low percentage of the income was allocated for other family expenditure like medical care and education.

The annual per capita poverty threshold of the province is PHP 479 lower than the regional estimate of PHP 14,225. Poverty incidence also remains high at 20.6%.

3.1.9.10 Sultan Kudarat

The province had a total population of 675,644 in August 2007 reflecting an annual growth rate of 1.97% between May 2000 and August 2007. This translated to a population increase of 89,139 from May 2000 to August 2007.

Approximately 87% of the labor force is engaged in agriculture and service related activities with an employment of PHP194,000 (44%) and PHP189,000 (43%) respectively with only 13% (58,000) employed in industry related activities.

From the May 2000 data, the average annual family income of the province was PHP 75,756 with an annual average family expenditure of PHP 63,773. Table 3.1-33 presents the breakdown of family expenses.

Table 3.1-33 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
	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

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

A large proportion of the budget is spent on food needs while the remaining income is spent thinly among other needs..

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

The socio-economic indicators illustrate the poor living conditions of the provinces in the region. Much attention needs to be given to poverty eradication. Development interventions

and measures geared to increasing the family income to meet their basic needs are necessary. In particular, education, health care facilities and housing are among the areas to be prioritized.

3.1.9.11 Basilan

The population of the province is growing at 6.44% based on approximately 300,000 in 2000 increasing to 409,000 in 2007. In just a 7-year period, almost 100,000 people were added to the population of the province.

Similarly to the provinces in Mindanao Island, the 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 % (7,000) in the service sector.

The average annual family income grew by 19.2 % equivalent PHP 13,463 bringing the annual family income to PHP 83,413. As a result the average annual expenditure increased to PHP 57,204. Table 3.1-34 presents the percentage allocation of the family income.

Table 3.1-34 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
	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

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

The province has access to basic services but a large portion of the income is allocated for food with only a small portion of the budget 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. The poverty in the region is high at 39.1%. This translates to about 169,000 poor in the province.

3.1.9.12 Lanao del Sur

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

The average annual family income increased by PHP 13,463 from PHP 67,950 in 1997 income. Likewise, average annual expenditure increased to PHP 66,433. Table 3.1-35 presents the breakdown of expenses for a family.

Like all provinces in Mindanao, food remains to be the most important portion of the family budget. This is followed by rent with only small percentage available to other important needs like health and education.

The annual per capita poverty threshold of the province is PHP 16,567, PHP 1,034 higher than the estimate for the region. However, the poverty incidence worsened by 13.7% over the period from 2003 (44.6%) to 2006 (44.6%). This translates to 317,030 poor in 2006.

Table 3.1-35 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
	1997	2000
Food	53.9	53.1
Rent	10.0	12.9
Transportation and Communication	2.6	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

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

3.1.9.13 Maguindanao

The labor force in Maguindanao is concentrated in agricultural sector having some 70% (235,000) of the total labor force with the remaining 30% divided between the service (28%) and industry sectors (2%).

The average annual family income increased from PHP 67,296 in 1997 to PHP 76,438 in 2000. Similarly the average annual expenditure increased from PHP 51,739 in 1997 to PHP 63,594 in 2000. Table 3.1-36 presents the breakdown of expenses.

Table 3.1-36 Summary of Percentage Allocation per Expenditure Item

EXPENDITURE ITEM	% ALLOCATION	
	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	1.0
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

Almost half of the family income (53.7%) was spent on food with only a small percentage allocated to other expenditure like medical care and education, The 2006 poverty indicators estimated an annual per capita poverty threshold of PHP 15,556. In addition poverty incidence was second highest in the region at 69.3%.

3.1.9.14 Shariff Kabunsuan

This province is in transition and detailed, relevant information is integrated with the province of Maguinadanao. The socio-economic indicators illustrate the poor condition of the provinces in ARMM. Thus, there is a need to focus on poverty alleviation by increasing their capability to provide the basic non-food family needs (i.e., shelter, health care, education, etc). A rapidly increasing population will not be beneficial to the region as the poverty indicators worsen with the increasing population.

3.2 APPROACH TO SERD-CAAM STUDY

The section discusses the process undertaken by the Study Team to derive SEDP. The following principles form the integral component and strategic directions into plan formulation.

(1) Human Security and Development

As a response to the search for a more holistic approach to safeguard both the security and prosperity of communities and people in CAAM, the SEDP formulation is based on complementing concepts of human security and development. This development entails the whole range of economic, social, political and inter-cultural dialogues to which people aspire to pave the way for a more dynamic and developed CAAM community. While the concern for human security focuses on individuals 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. It also refers to the ability to exercise individual rights to participate in the process of governance, equal development, access to resources and the basic necessities, protection against poverty, access to basic social services such as education and health, protection against marginalization, protection against natural disasters as well as ecological and environmental degradation, with the end goal of promoting a better life for the people in Mindanao.

SEDP's concept of human security is people-centered and founded on seven interconnected components, namely; economic security, food security, health security, environmental security, personal security, community security and political security. The concept is discussed extensively in Appendix B.

(2) CAAM Community as the Social Mobilization Unit

The JICA Study Team considers the communities in CAAM as the basic arena for SEDP formulation wherein sound programs and projects shall come from community aspirations. These programs and projects will be communicated to the upper echelons for the development of a supportive framework for decision making and resource allocation to empower communities to act at the grassroots level. (see, The ICEC and Global Social Mobilization, <http://www.tulane.edu/~icec/socmob.htm>)

Even under the scope of the Study and the limited study time frame, the JICA Study Team adopts in principal a bottom-up approach. The bottom-up approach in planning engages people's participation, notably leaders, women and youth at barangay level, in all phases of the SEDP formulation process by accounting for the needs felt by the people, and embracing the critical principle of community involvement, as a way of empowering communities such as POs. Through planning activities of SEDP does not only aim to achieve specific development goals through self-reliant efforts, but also involve LGUs, cities and various stakeholders by organizing workshops and exchanging information during whole plan formulation. Regular meetings, consultations and intensive dialogues with donors ensure relevant and responsive feedback on the adequacy and effectiveness of proposed plans and projects. It is also expected to promote a high level of trust leading to good governance, and sustainable peace and development.

(3) Utilization of Primary Data Resources

The collection of primary data provides the Study with a unique edge with the original CAAM data allowing updates on existing secondary information and serving as basis for determining CAAM's issues and challenges, needs and gaps. Various tools were implemented such as the social survey which consists of an In-depth Barangay Needs Assessment (IBNA), Barangay Profiling, On-the-Spot Assistance (OSA), the Regional, Provincial and Municipal Survey

(RPM), Key Informant's Interview (KII), and the results of the Workshops. These sources served as an initial step in determining the needs and challenges of the target community and population to be able to effectively address the actual needs of the people in CAAM.

While primary data collection mobilizes necessary resources to derive more sensitive and appropriate measures and strategies for the CAAM's socio-economic development, the analysis may be further enriched with the contribution of secondary sources along with some leveling off activities.

(4) Integrating the Development Concept at the Community Level

At the community level, prior to the implementation of programs and projects such as the Quick Impact Projects (QIPs) within CAAM, key participants and stakeholders are required to undergo Social Preparation activities as well as Values Transformation Training (VTT). Their objectives are to transform the attributes and practices of the key participants and stakeholders in community development, through the application of acceptable development concepts in CAAM such as Islamic values as an approach towards social change and to further arrest the moral decline and culture of corruption and society's other social illnesses.

3.2.1 Study Framework

The formulation process may be subdivided into three stages, from 1) data collection, 2) CAAM Profiling and Assessment, and 3) Plan Formulation which resulted in the SEDP. Figure 3.2-1 illustrates the study flowchart which is explained in detail in the succeeding section.

3.2.2 STAGE 1, TASK 1: Data Collection

For Stage 1, the process of collecting primary data consisted of three main survey methodologies. These were the Social Survey, Profiling, LGU and Line Agency Matrix survey. The Social Survey included three subcomponents, IBNA, Barangay profiling and OSA while Profiling included Regional, Provincial and Municipal (RPM) level profiling and Key Informant's Interview (KII). Simultaneously with the Profiling and In-depth Barangay Analysis (IBNA), Quick Impact Projects (QIPs) and On the Spot Assistance (OSA) were also implemented and provided much information on potential models for plan implementation, monitoring and evaluation.

3.2.2.1 Secondary Data Collection

As an initial stage, collection of data, both primary and secondary, was undertaken for the purpose of obtaining information related to the study, building a database for planning and

provide basis in the profiling, assessment and formulation of the SEDP in succeeding stages.

Extensive review of various secondary data sources was undertaken from legal and legislative documents, regional development plans and regional physical framework plans, line agency guidebooks and handbooks from the National Statistics Office (NSO) and other relevant documents. All geographical information and data were captured from maps, aerial photographs, and satellite images and transformed into statistical tables.

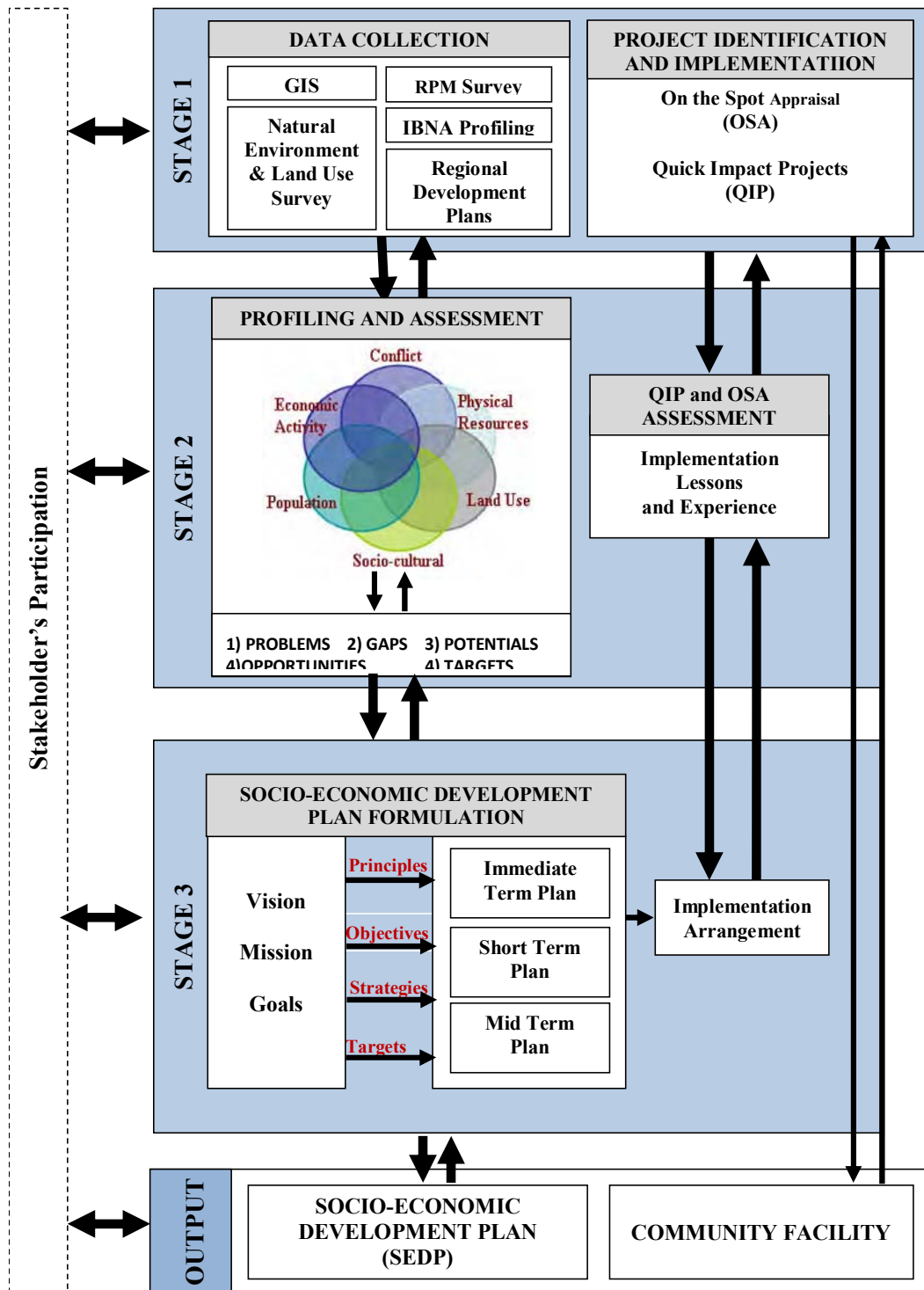


Figure 3.2-1 SERD-CAAM Study Flowchart

3.2.2.2 In-depth Barangay Needs Assessment (IBNA)

The needs at the barangay level were identified and assessed through IBNA and Barangay Profiling. These activities served as basis in drafting the Immediate Term Plan for the SEDP. The objectives of the IBNA were to analyze the urgent development needs at the Barangay

level so as to determine areas requiring assistance and programs for small but critical development needs.

3.2.2.3 Barangay Profiling

Barangay profiling was conducted to prepare a Barangay Database in the CAAM for future planning and development implementation of activities in CAAM and to share the results with concerned organizations, including donor agencies and international organizations.

3.2.2.4 Regional, Provincial and Municipal (RPM) Profiling

As part of the socio-economic profiling, the RPM Profiling of Mindanao was conducted to provide insights for project planning and to present a glimpse of reality of the regions, provinces and municipalities of Mindanao. In addition, it was undertaken to gather specific data on the physical and natural conditions, land use, socio-economic conditions, physical infrastructure and on ongoing and planned activities by various stakeholders (i.e. GRP, NGOs and POs). The analytical tools utilized provided information in three dimensions: 1) sectoral, 2) time-series trends, and 3) geographical and sieve mapping.

3.2.2.5 Key Informant's Interview (KII)

KII was conducted in five Regions, thirteen Provinces and 30 selected Municipalities in the conflict affected areas in Mindanao to collect information on the potential roles of stakeholders, the problems and issues raised in the CAAM communities and the peace process .

3.2.2.6 LGU and Line Agencies Matrix Survey

LGU and Line Agencies Matrix were analyzed through workshops and surveys conducted with local governments and line agencies based on their identified high priority projects and programs. The results were tabulated in a matrix format indicating the identified high priority projects which became the basis used to determine the necessary technical and financial requirements per project proposal.

3.2.3 STAGE 1, TASK 2: OSA and QIP Project Implementation

On-the-Spot Assistance (OSA) was provided for small but critical development needs identified in the course of IBNA. Through the implementation of OSA, the Study aims to examine the commitment and capacity of barangays and to confirm the actual development needs in CAAM. OSA was implemented in 12 barangays in Phase 1 and 11 in Phase 2.

Under QIP Phase 1, two projects were implemented and nine in Phase 2. A number of security measures were adopted to ensure safety of those directly involved with the projects. The project assessment was also conducted during and after the implementation, to serve as indicators for successfully addressing the objectives of OSA and QIP, and as input to the design of the Implementation Arrangement for the SEDP. Areas such as construction supervision, capability of local contractors, and monitoring and evaluation mechanisms were evaluated.

3.2.4 STAGE 2: CAAM Profiling and Assessment

Stage 2 consisted of profiling to establish a barangay-level database, gap analysis and needs assessment to qualitatively and quantitatively analyze the CAAM planning environment. This also allowed the assessment of OSA and QIP with respect to the implementation experience of selecting projects, while providing detailed information on the issues raised and the challenges and lessons learned.

3.2.4.1 CAAM Profiling

The socio-economic data collected at the barangay level through participatory field survey and profiling were compiled in a database with the goal of establishing the barangay database for CAAM. Furthermore, the data will be integrated into the GIS database that can provide maps and other related information at the regional, provincial, municipal and barangay levels.

3.2.4.2 Assessment of Present Condition

The Assessment of present condition was conducted at different administrative units at municipal, provincial and regional levels. Its aim was to establish the existing conditions within CAAM with reference to its resources (both human and natural), the issues and challenges in the five sectors and corresponding subsectors, to define resource potentials, to determine development needs and identify gaps, to derive critical needs and prioritization in CAAM.

3.2.4.3 Inter-relationship of Development Sectors in CAAM

Five sectors and corresponding subsectors were identified based on the Comprehensive Land Use and Planning Guidebook (2005) and the CAAM Profiling which included the compiled data on population, physical and socio-economic conditions, conflict and cultural characteristics. This also allowed problem identification, gap assessment, and the identification of opportunities and potentials of CAAM in each sector. The comparison of indicators established norms and standards, and in addition priority and critical needs at the regional, provincial and municipal levels were also identified.

3.2.4.4 Validation of CAAM Profiling and Assessment

The Study Team adopted problem-finding and solution-finding analyses that were subjected to the social mobilization process. The latter was undertaken through a multi-sectoral approach with a defined participatory process that included the implementation of a number of seminar-workshops and focused group discussions (FGDs) with the stakeholders with the goal of validation of CAAM profiling and assessment.

3.2.4.5 Gap Assessment in Identified Sector and Subsector

Sectoral gap analysis is necessary to define the disparity between the present state and the desired state of CAAM. Gaps may be identified through the comparison of specific quantifiable indicators of high priority sectors such as health, education, water supply system, rural roads, etc. at varying administrative levels (i.e. Philippines, Mindanao, and CAAM). Comparison is, however, only meaningful when using a common standard for comparison. The gaps are then rationalized through the identification of a series of strategic steps to bring each sector and subsector to a given standard such as to reach Mindanao average at the end of the Short-Term Plan (2017). And by the end of Mid-Term Plan (2023), the CAAM shall be at par with the Philippine's national level of development.

3.2.5 STAGE 3: Plan Formulation

Stage 3 focused on the SEDP formulation which is based on the results of the IBNA and Barangay Profiling, the Matrix of High Priority Projects from LGUs and Line Agencies, and the KII and workshops. These were compared and triangulated to rank high priority sectors and subsectors, formulating the SEDP with corresponding time frame for the implementation of the priority projects, and to identify high priority areas in CAAM.

3.2.5.1 Visioning and Goal Formulation

Defining the vision, mission and goals of the CAAM populace for the SEDP is a crucial commencing activity in the SEDP formulation. The aim is to provide an overall direction for the SEDP in CAAM. A planning exercise was undertaken to formulate the SEDP Vision, Mission and Goals appropriate for CAAM. The stakeholders during the mid year report-workshop on 21 February 2008 provided a set of descriptors for their vision statement. The Study Team provided the initial drafts of at least 3 vision statements to become the working material during the first meeting with the SEDP Committee. Through an iterative critical processing of vision statement, the vision, mission and goals of the SEDP were defined.

3.2.5.2 Spatial and Sectoral Strategy

Spatial strategy design is based on the results of the profiling and further validated by secondary data such as the regional physical framework plans and regional development plans. Moreover, the overall thrust focused on five sectors, namely; Social, Economic, Environment, Infrastructure, and Local Administration. The Findings of IBNA and Barangay profiling will be reviewed and analyzed and as a result the development needs of the communities in CAAM can be identified.

3.2.5.3 Time Frame and Plan Phasing

Proposed priority projects and programs received and collected from provincial and municipal LGUs were collated and individually assessed by the Study Team. A database was prepared to monitor all submitted priority projects and programs.

The IBNA and Barangay Profiling described the real and urgent needs of the CAAM and the Matrix of High Priority Projects, from the LGUs and Line Agencies, indicated the projects and programs that will address those needs. Specifically, those projects are the tangible component of the SEDP.

3.3 SECTORAL ISSUES, CHALLENGES AND GAPS IN CAAM

This section entails the descriptive analysis of the sectoral and subsectoral environments by administrative units in CAAM using data on demographics and potentials. The major sectors will include the social, economic, infrastructure, environment and local administration, to understand the current state of development, potentials, and constraints as inputs to the identification of appropriate strategies, programs, projects and activities for the socio-economic reconstruction and development for CAAM.

3.3.1 Development Sectors and Subsectors

Sectoral studies are crucial in the preparation of the SEDP. They help identify the pressing development issues prevailing in the sector, analyze the causes and effects, establish potentials for development, and define the sectoral and subsectoral spatial requirements. As a guide to sectoral studies, initial sectors were identified from the Comprehensive Land Use Plan (CLUP) Guidebook produced by the Housing and Land Use Regulatory Board (HLURB).

3.3.2 Development Sectors

The surveys undertaken to formulate the SEDP such as the In-depth Barangay Needs Assessment (IBNA), Barangay Profiling and Key Informant Interview (KII), among others,

defined the following sectors:

For the Social Sector, it determined CAAM's social character in terms of its population indicators and characteristics, income distribution, adequacy of sectoral services and facilities, and identification of issues and challenges.

In the Economic Sector, it evaluated the economic base of CAAM communities, types of industries, commercial and agricultural activities, and most importantly, the prevailing economic situation, and the challenges and impacts of other economic trends.

For the Infrastructure Sector, it determined the locality's intra and inter linkages should be assessed such as the location, capacity and condition of existing facilities based on their adequacy, quality, equity and efficiency.

Environment Sector considered an overall assessment of CAAM's environmental quality based from a multi-sectoral exercise and placed against the results of natural and other physical related challenges.

It is imperative that the Local Administration and Governance Sector study is undertaken as soon as possible, to identify potential stakeholders, review and assess the capabilities of the participants and institutions involved, and strengthen them to ensure smooth, effective and efficient SEDP implementation.

3.3.3 Development Sub-Sectors

These sectors shall be qualified and quantified by defining the subsectors. The subsectors are identified below according to the most urgent needs identified in the needs assessment under IBNA, Barangay Profiling and Matrix survey. Each subsector is related to projects or programs to be implemented at defined levels of local government unit (LGU). Subsectors which were identified under the five sectors are:

- SOCIAL Sector: health, education, water supply, electricity
- ECONOMIC Sector: agriculture and fishery resources, livelihood and trade, industry
- INFRASTRUCTURE Sector: farm-to-market roads, arterial roads and bridges
- ENVIRONMENT Sector: protection/conservation of the natural environment, provision for waste management, flood control

- LOCAL GOVERNANCE and ADMINISTRATION: stakeholder empowerment, development administration, capacity building, institutional strengthening

3.4 ISSUES, CHALLENGES AND GAPS IN THE SOCIAL SECTOR

Development challenges in CAAM are daunting with its Social Sector being the most affected. This is reflected in the lack of, or limited access to, minimum basic needs (MBN). MBNs serve as a measure of a Filipino family's quality of life and a family unable to meet its MBN on a sustained basis may be considered to be in a state of poverty. In addition poverty incidence further indicates the level of poverty of a household.

Those who are classified at the highest level of deprivation will be targeted for priority assistance. To overcome such challenges would require extensive knowledge of the area, resiliency among the CAAM peoples, implementable strategies for rehabilitation and adequate development interventions.

Gap Assessment serves as the basis of determining the existing disparities in the provision of social services towards the CAAM populace. Based on the initial analysis of primary data gathered from the social survey, Barangay profiling, IBNA, RPM Profiling and KII, it was determined that a large gap, in terms of social service provision, exists between CAAM and Mindanao, CAAM and the Philippines and even among barangays and municipalities when compared to the CAAM average. This justifies the need for interventions that would assist the barangays in catching up with the CAAM average, work towards the Mindanao development level and to be at par with the rest of the Philippines. The survey results indicated that gaps exist in the social sector in the subsectors of education, health and housing.

3.4.1 Poverty Incidence

Household poverty incidence is a measure of a family's income against the cost of obtaining the necessities for physical efficiency. A household may be deemed to be in a state of poverty if it is unable to afford a basic living standard or its minimum basic needs (MBN). In general, relative poverty is insensitive to economic growth without changes in income distribution.

The average incidence of poor families is 28% of the total households in the Philippines. Region XI has the lowest percentage in Mindanao at 28% while ARMM has the highest with 54% of families classified as poor, with Region XIII second, with 44% families.

Among the provinces in CAAM, Basilan has the lowest poverty incidence at 26.20% of families living below the poverty line and is the only province in CAAM to register a poverty incidence lower than the national average. Misamis Oriental has a poverty incidence of 29.3%.

Davao Oriental has a poverty incidence of 37.2%, Compostela Valley has 34.7% South Cotabato has 35 %, Sarangani and Sultan Kudarat have 49%. Lanao del Sur and Maguindanao have high poverty incidence rates of 63% and 55.10 % respectively.

The poverty incidence in CAAM is worse than the national average with some of the poorest municipalities in the Philippines located within CAAM. However, at the municipal level, only 9 municipalities have more than 75% of their population classified as poor and only 4 municipalities have less than 25% poor people. Many of those with higher poverty incidence are in ARMM, where 55 out of 68 total municipalities have poverty incidences higher than the national average.

The municipality of Tangcal, Lanao del Norte has the highest poverty incidence of 86.72%. Salvador, Lanao del Norte have a high percentage (73.67%) of their population living below poverty line. Columbio, Sultan Kudarat have 68%, Buluan, Maguindanao have 60% living below the poverty line.

The poverty incidence illustrates that the CAAM urgently requires interventions at all administrative levels, provincial, municipal and barangay, to enable CAAM to reduce its poor families and achieve the Millenium Development Goal (MDG) target of reducing the proportion of people below the poverty line by half by 2015. The majority of municipalities with high poverty incidence are in the Zamboanga Peninsula and the province of Lanao del Norte. These include the following municipalities, with a declining poverty incidence: Tangcal, Lapuyan, Poona Piagapo, Tagoloan, Mabuhay, San Pablo, Sibuco, Sirawai, Magsaysay, Nunungan, Matungao, Pantao Ragat, Salvador, Salug, Sapad, Sultan N. Dimaporo, Tabina, Munai, Baliguian, Talusan.

3.4.2 Education Subsector in CAAM

Education in CAAM has major challenges to overcome particularly in access and equity, the learning environment, governance and infrastructure.

3.4.2.1 Access and Equity

Basic education is by the public school system and because of the inadequate numbers of schools and teachers, especially in remote areas, the educational development of the pupils and students suffers. It is aggravated by the inadequacy of facilities (books, learning materials, etc.) and the perceived low quality of the teachers.

CAAs overall attendance rate is low for both elementary and secondary levels. Also the low number of school completers and how to keep students in school are major challenges. The

high cost of education, the lack of support from parents, the lack of interest of students towards studying, the distance to schools, the low quality of schools, the lack of support from the LGUs and the community sectors aggravate the educational standards. In addition, the prevailing peace and order brought about by the conflicts and the demands of community life particularly related to economic survival, further contribute to the poor standards of education.

3.4.2.2 Status of the Learning Environment

The RPM profiling, although not including the data at the barangay level, provides a clearer picture of the efficiency and effectiveness of education services in the Philippines. Philippines' cohort survival rate of school children in the elementary level in both public and private schools is at 62.06% (2004). Regions X, XI and XIII are within the range of the national average with 62.23%, 61.95% and 60.36%, respectively. However, ARMM has the lowest cohort survival rate with a registered figure of 33.34% followed by Region XII with 45.36%.

Poor cohort survival in basic education is further affected by the poor provision and status of schools. For 2008-09, a little more than half (984 out of 1,919) of the public elementary schools in ARMM were incomplete. In CAAM, four out of 10 elementary schools are incomplete (only educate to Grade 4) (1,495 out of 3,998). In comparison to the Philippines overall, only 22 % (7,250) out of 35,058 schools were incomplete and in Mindanao (outside of ARMM), only 20 % (1,730 out of 8,674 schools) were incomplete. The absence of schools contributes to the low completion rate of elementary pupils. Teacher shortage has resulted in an increasing number of multi-grade classes and incomplete schools. 43% of elementary students in ARMM are enrolled in multi-grades.

At the provincial level, 6 out of 10 schools in Lanao del Sur I and Lanao del Sur II, and 5 out of 10 in Basilan are incomplete elementary school facilities (Primary Schools). Around 36% (697) of elementary schools do not even have Grade 4 and 48 % (938 schools) do not have Grades 5 or 6.

3.4.2.3 Provisions for Schools Infrastructure

The Social Survey Report in 2007 provides an overview of the widening gap between the actual provision of education facilities in the CAAs against the overall provision in Mindanao and the rest of the Philippines.

Table 3.4-1 School to Catchment Population, SY 2005 to 2006

EDUCATION	PROJECTED POPULATION	NUMBER OF SCHOOL		CATCHMENT POPULATION PER FACILITY	
		ELEMENTARY	SECONDARY	ELEMENTARY	SECONDARY
Philippinesa	85,298,300	35,526	6,002	2,401	14,212
Mindanaoa	20,291,600	8,813	1,414	2,302	14,350
CAAMb	6,529,857	3,998c	736	1,633	8,872

Source: aNSCB, 2007; b. SERD-CAAM Social Survey Report, 2007;
c value includes both primary and elementary schools in CAAM

For the purpose of comparing the figures between Philippines, Mindanao and CAAM, the total number of elementary schools from the Social Survey database (for CAAM) includes both data for elementary (2,503) and primary schools (1,495). However, elementary facilities are considered as part of basic elementary education whereas primary schools only cater up to Grade 4 and are classified as incomplete schools³.

At the national level, an elementary school is available for every 2,401 people while one secondary school facility for every 14,212. At the Mindanao level, the figures are 2,302 and 14,350, respectively. This indicates a minimal disparity between the provision of physical facilities to total population between the national and Mindanao levels. Interestingly, CAAM figures suggest that one elementary school is available for every 1,633 people while one secondary school for every 8,872 people. These figures suggest a better school to population ratio, which are much lower than Philippines and Mindanao values (refer to Table 3.4-2).

Table 3.4-2 Education Facility to Catchment Barangay and Municipality, SY 2005-06

EDUCATION	ADMIN UNIT		NUMBER OF SCHOOL		FACILITY PER BARANGAY		FACILITY PER MUNICIPALITY	
	BRGY	MUN	ELEM	SEC	ELEM	SEC	ELEM	SEC
Philippines	41,980	1,501	35,526	6,002	0.85	0.14	23.67	4.00
Mindanao	10,049	412	8,813	1,414	0.88	0.14	21.39	3.43
CAAM	3,547	158	2,503 ^a	736	0.70	0.19	25.03	4.66

^autilized exclusively the number of elementary schools

Note: (MUN – Municipal, BRGy – Barangay, ELEM – Elementary, SEC – Secondary)

Source: SERD-CAAM Social Survey (2008)

The national government target is the provision of 1 elementary school and 1 secondary school for each barangay. If both elementary and primary facilities are considered, the ratio of facility per barangay is 1.03 implying that the elementary facility provision is enough. However, if the number of primary schools (incomplete schools) are omitted, the ratio of facility to each CAAM barangay is 0.70 elementary schools (Table 3.4-3). This figure is higher than the national and Mindanao averages, computed to be 0.85 and 0.88, respectively.

³ Incomplete schools results from teacher shortage. 2007 BEIS determined a ratio of 1 teacher to 41.7 pupils in ARMM in contrast with the national figure of 1:29.4 pupils per teacher. Planning standards require at least 1:40 pupils. This teacher shortage has resulted in an increasing number of multi-grade classes and incomplete schools. 43 % of elementary students in ARMM are enrolled in multi-grades or incomplete schools.

There is lack of secondary school facilities provided at all three levels (National, Mindanao and CAAM) demonstrated by their values of 0.14, 0.14 and 0.19, respectively. This reflects that seven (7) barangays are being catered for by each secondary school in the Philippines and Mindanao, whilst in CAAM, each secondary school serves 5.3 barangays.

In general, primary data shows that elementary facility provision in CAAM is much better than Philippines and Mindanao figures. However, the expression of needs collected from the key informants' (KII) survey and consultative workshops reflect otherwise. Secondary data taken from the ARMM, illustrates the ineffectiveness of the education sector not only in terms of the inadequacy and quality of the facilities but also the low values reflected in other performance indicators.

Table 3.4-3 Number of School and Ratio to School Age Population, SY 2005 to 2006

AREA	1995-2000 ACTUAL APGR	NUMBER OF SCHOOLS		2005 PROJECTED SCHOOL-AGE POPULATION		FACILITY TO SCHOOL-AGE POPULATION	
		ELEM ^c	SEC	ELEM	SEC	ELEM	SEC
Philippines ^a	2.20	35,526	6,002	12,638,700	7,774,800	356	1,295
Mindanao ^a	2.27	8,813	1,414	3,281,900	2,017,400	372	1,427
CAAM ^b	2.55	2,503*	736	1,345,000	815,500	538	1,108

Source: aNSCB, 2007; bSERD-CAAM Social Survey Database, 2007; cexclusively utilized elementary school
Note: (ELEM – Elementary, SEC – Secondary)

Student population was interpolated from the actual CAAM population and projected based on the 1995-2000 annual population growth rate (APGR). The School facility to school-age population, reflects that each elementary school caters to a catchment of 538 students in CAAM, whilst the Mindanao average is 372 students and 356 students at the national level. The actual provision of secondary schools is one facility for 1,295 students at the national level, 1,427 students in Mindanao and 1,108 students in CAAM (see Table 3.4-4).

The Gap may be determined by considering either the national target of one facility per barangay or by determining the number of facilities necessary to catch up with Mindanao and Philippine levels.

Basing the gap identification on the national government's requirement of one secondary school per barangay, CAAM has an absolute gap of 1,073 elementary schools or at least the present incomplete schools require upgrading to become complete elementary schools. CAAM requires an additional 3,146 secondary school facilities.

The second option identifies the facility gap between Mindanao and CAAM is 1,166 elementary schools while Philippines and CAAM, 1,279 elementary schools.

**Table 3.4-4 Number of School and Ratio to School Age Population CAAM Provinces,
SY 2005-06**

AREA	TOTAL		NUMBER OF SCHOOLS		2005 PROJECTED SCHOOL-AGE POPULATION		SCHOOL TO SCHOOL-AGE POPULATION RATIO	
	BRGY	MUN	ELEM	SEC	ELEM	SEC	ELEM	SEC
CAAM	3,882	169	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	232	12	142	38				
Lanao del Sur	1,156	40	404	137	133,700	82,300	331	601
Marawi City			NO DATA	NO DATA				
Maguindanao	281	22	182	52	159,500	98,200	876	1,888
Shariff Kabunsuan	210	11	156	50				

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

a 2000 population included in region IX

b 2000 population included in Lanao del Sur

c 2000 population included in Maguindanao

Note: (Mun – Municipal, BRGY – Barangay, ELEM – Elementary, SEC – Secondary)

Based on the school age population, the provision of facilities is disproportionate within the provinces of CAAM (refer to Table 3.4-4). The average CAAM level is one elementary school for 537 elementary students. However, seven provinces are below the CAAM average. The highest no of students for each elementary school is in South Cotabato with 1,942 students, Lanao del Norte has 1,492 students and Compostela Valley has 1,207 students. In CAAM 1,108 secondary school age students are being served by one secondary school facility with seven provinces falling below this figure. The provinces are: Zamboanga del Norte have 2,144 students; Zamboanga del Sur has 1,760 students; Lanao del Norte has 3,648 students; Compostela Valley, has 1,140 students; South Cotabato has 3,518 students; Sarangani has 2,039 students and Maguindanao has 1,888 students.

In the Education sector, all provinces need to attain the CAAM average before attempting to equal the Mindanao or National levels.

Table 3.4-5 Number of School Facilities in CAAM (per Barangay and per Municipality)

SCHOOL FACILITIES	HIGH SCHOOL	PRIMARY	ELEMENTARY	DAYCARE	MADRASAH	INFORMAL
No. of Facilities	736	1,495	2,503	2,791	1,820	159
Facility Per Barangay	0.19	0.42	1.13	0.72	0.47	0.04
Facility Per Municipality	4.36	9.46	15.84	3.04	11.52	0.27

Source: National Statistic Coordination Board (NSCB), 2005; CAAM Population based on SERD-CAAM Social Survey Report, 2008

Table 3.4-5 shows the number of school facilities in CAAM per barangay and municipality. In addition to the provision of elementary and secondary schools, the Social Survey database collated the number of Day care centers, Madrasah schools and other informal educational facilities. If the day care figures are compared with the number of barangays, there are 0.72 day care centers for each barangay. This is lower than the government requirement of one day care center for each barangay⁴. This results in absolute facility gap of 1091. However, it should be noted that 1,818 barangays in CAAM do not have any day care facilities.

3.4.2.4 Provision of Madrasah Education

LGUs and Line Agencies simultaneously agreed that support from the national government is necessary to improve the quality of educational services. Madrasah education covers Arabic, mathematics, chemistry and other subjects, and plays an important role in education in CAAs. The national government, through the Department of Education, recognizes Madrasah as an official education facility. It is recognized that some donors may be reluctant to support Madrasah, but the community needs for Madrasah should be properly reflected in the SEDP.

The implementation of the Madrasah Education is national policy particularly in communities with predominant Muslim populations. This was covered by Legal Provisions implemented prior to the Tripoli Agreement and the issuance of R.A. 9054 (Organic Act) creating ARMM.

The Madrasah Education Project is one of the 5-Point Education Agenda (2002) of the National Government, under the Edukasyon para sa Kapayapaan at Kaunlaran sa Mindanao (Education for Peace and Development in Mindanao). The project is a high impact Mindanao peace and development strategy with the mandate of incorporating the Madrasah system of education within the National Education System. Thus it is recognized that Madrasah education has a substantial contribution to education for Muslim communities.

The first legal basis for the government's support to Madrasah Education was issued in a Letter of Instruction (LOI) on 31 March 1982 to the Secretary of the Ministry of Education, Culture and Sports (MECS) mandating the education ministry to "formulate and adopt a program for the development of the Madrasah system of education and its gradual integration into the mainstream of the Philippine education system". The LOI also stated "to endow them with the capabilities to contribute to the modernization of their communities within the framework of their Islamic faith". This preceded the Tripoli Agreement and subsequent issuance of Administrative Order No. 290 on 12 September 1996 creating the body to formulate the Comprehensive Mindanao Education Program (CMEP) plan.

⁴ RA 6972, an Act establishing a Day Care Center in Every Barangay, institutes the need to provide Day Care Centers for every 500 families.

This is presently being pursued by the Presidential Task Force for Education (PTFE) as one of the sectoral themes for strengthening the Madrasah Education system's implementation at all levels; Basic Education, Tertiary Education and Technical Education and Skills Development. The PTFE was created through Executive Orders Nos. 632 and 652. The integration of the Madrasah Education system is included in the new Philippine Main Education Highway Framework.

At present, most Madaris are community-based with no formal recognition, regulation or standards. Table 3.4-5 shows that the number of Madrasah per barangay is 0.47. Once Madrasah, is integrated fully into the educational system the national standard of 1 Madrasah facility per barangay is likely to be implemented. Currently, one Madrasah facility serves 2.13 barangays or a shortage of 2,164 Madaris.

Municipalities lacking Madrasah facilities are concentrated in Lanao del Sur and are in the municipalities of Bacolod-Kalawi (Bacolod Grande), Bayang, Buadiposo-Buntong, Bubong, Butig, Ditsaan-ramain, Ganassi, Kapai, Kapatagan, Lumba-Bayabao (Maguing), Lumbaca-Unayan, Lumbatan, Lumbayanague, Madalum, Madamba, Maguing, Malabang, Marantao, Marawi city, Masiu and Mulondo, Poonabayabao (Gata), Pualas, Saguiaran, Sultan Gumander, Tagoloanii and Tamparan.

3.4.2.5 Synthesis and Analysis of the Education Subsector

The results of the Social survey report are quantitative and not qualitative. The report does not give an indication of the physical condition of the schools

Many reports from Line Agencies indicate that barangays struggle to accommodate an increasing number of children in their elementary schools. Schools in some barangays have to accommodate two to three grades per class, while other schools have only a roof under which children study on an earth floor. The shortage of teachers and classroom equipment such as desks, chairs and blackboards also hampers the education process in CAAs. If it is assumed that the service requirements in most of the CAAM provinces are adequate, the increase in the population of the school going age group, as the years progress, may widen the gap between and the provision of and the need for facilities resulting in even lower performance. The appropriate utilization of resources, both manpower and financial,, should be redirected to meet the potential service gaps and address the conditions in the CAAs.

There are additional recommendations to strengthen the Local School Boards, to implement capacity building measures for teachers, the hiring of competent teachers and the improvement of schools and support facilities. Education programs should target the provision of a school building in every barangay, enhance the quality of education, the provision of an Education

and Training Faculty Development Program, and provide additional facilities such as classrooms, libraries and internet access.

3.4.3 Health Subsector

Human resources are one of CAAM's potential resources. The provision of an adequate health service within CAAM ensures a productive manpower resource that may fuel economic growth and sustain the socio-economic development within CAAM.

The workshop results identified the following issues and challenges in the Health subsector; a substandard quality of health service provision within the respective provinces; a lack or absence of basic health services illustrated by the lack of supplies of medicine, health personnel, the irregular of visits of medical personnel, a lack of access to more health activities such as vaccination or immunization; the lack of barangay health centers, insufficient support facilities (i.e. no ambulance, electricity to BHCs), very high hospital-doctor ratio due to inadequate numbers of medical personnel to support the community, limited health care financing and indigence program, high cost of medicines and medical supplies. They also identified the prevalence of water born diseases, high mortality and morbidity rate, poor sanitation and limited family planning programs.

3.4.3.1 Health Care Facilities in CAAM

Initially, for the purpose of the Health subsector gap assessment, analysis is based on the Social Survey Database utilizing the following indicators: Catchment population per Health Facility (Hospitals, RHUs, and Barangay Health Centers).

Table 3.4-6 Number of Health Facilities and Catchment Population per Facility (2005)

ADMINIS- TRATIVE UNIT	PROJECTED POPULATION 2005	NO. OF HEALTH FACILITIES			CATCHMENT POPULATION PER FACILITY		
		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)

At national level, the catchment population per hospital is 46,048 persons while in Mindanao the value is 42,629. This indicates that Mindanao has a better ratio of health facility provision to population compared to the national level (See Table 3.4-6). However, this is does not take in account bed capacity, ratio of health personnel to catchment population, among others . The consideration of other indicators is necessary to derive a more appropriate picture. With

respect to hospital provision, one hospital in CAAM services 66,035 population which implies a much bigger catchment population compared to both National and Mindanao levels. The distribution of hospitals is shown in Figure 3.4-1. A gap equivalent to 1.4 in the current provision of hospitals in CAAM is noted between the National and CAAM levels. This suggests that about 43 more hospitals are needed to match the Philippines level whilst an additional 55 hospitals are needed to match the Mindanao level.

Based on DOH standards, the catchment population of a Barangay Health Center (BHC) is 5,000. Thus, the provision of BHCs in CAAM exceeds the standard with one BHC catering to a population of 3,861 (refer to Table 3.4-7).

Table 3.4-7 Number of Health Facilities and Ratio to Municipality, Barangay (2005)

ADMIN UNIT	BRGY	MUN	NO. OF HEALTH FACILITIES			HEALTH FACILITY PER ADMINISTRATIVE UNIT		
			HOSPITALS	RHUS	BRGY HEALTH CENTERS	HOSPITAL PER MUN	RHUs PER MUN	BHCs PER BRGY
Philippines	41,980	1,501	1,838	2,266	15,436	122	151	37
Mindanao	10,049	412	476	383	3,565	116	93	35
CAAM	3,211	158	99	173	1,693	626	109	527

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

Note: (MUN – Municipal, BRGY – Barangay)

The Philippines national average for the provision of hospitals at the municipality level is adequate with 1.22 hospitals serving one city or municipality (see Table 3.4-7). This number of hospitals is also adequate in Mindanao with 1.16 hospitals per municipality. However, the CAAM value is lower with 0.626 hospital per municipality, thus one hospital caters to 1.7 municipalities. Hospital provision in CAAM is necessary as one province is required to have one provincial hospital and also district hospitals should be provided.

This indicates a large gap in the provision of hospitals. To meet the Mindanao and Philippine levels, the hospital facilities in CAAM should be increased by 57% and 63% respectively.

The government mandates that one Barangay health center or BHC⁵ shall be provided per barangay. Within CAAM, BHC provision is relatively low at a figure of 0.44 per barangay. However, this figure is slightly better as compared with the Mindanao and Philippine values pegged at 0.37 and 0.35, respectively. However, the very low value suggests the limited provision of BHCs at all administrative levels (Philippine, Mindanao and CAAM) and needs further investigation.

⁵ The Barangay Health Station/Center (BHS) is the unit which dispenses basic health care (i.e maternal and child care, immunization, treatment of Simple Medical conditions, nutrition, family planning, sanitary health care, emergency treatment and health education). Its recommended service zone is from three (3) to five (5) kilometers considering transport availability for both the patient and medical staff and serving a population of 5,000. The BHS is manned by full-time rural health midwife. It should be centrally located and grouped with the other institutional facilities such as chapel, school and Park/Playground.

With respect to RHUs, the DOH mandates that one RHU⁶ should be provided per municipality regardless of population size. The CAAM has 1.02 while Philippine level is 1.51 and the Mindanao average is slightly lower at 0.92. However, better access to health services has been cited by the stakeholders especially from the community or at the grassroots level.

3.4.3.2 Mortality Rate in CAAM

In general, aside from the lack of health centers to serve communities in distant barangays the health services suffer from the lack of medicines and the absence of qualified health workers in barangays even where there are health centers. The problem may be attributed to incapability of the LGU concerned to operate and run these basic facilities. Secondary data indicated that there is high mortality and low life expectancy observed within the CAAM areas. In addition health indicators vary sharply among the regions, and in particular the ratio of mortality among children and mothers.

The RPM profiling has the National infant mortality rate (IMR) average at 30 per 1000 live births. Only Region IX and XII have IMRs below the national average with rates of 25 and 37, respectively. The regional IMR average is 27 per 1000 live births. Zamboanga Sibugay, Zamboanga del Sur, and Zamboanga del Norte have lower IMRs than the regional average with values of 8.8, 4.9 and 4.2, respectively. ARMM has the highest IMR with 41 per 1000 live births followed by Regions X and XI with 38 per 1000 live births each.

3.4.3.3 Common Illnesses and Diseases in CAAM

The system of social and community health care is poor, particularly at grassroots level. A proportion of the CAAM community is not aware of the importance for self-care, through curative and preventive measures, to ensure their well-being and health. The presence of epidemic and major illnesses, particularly diarrhea among children, reflects the poor state of health care provision among the poor and children 13 years and younger.

The Social survey compares the proportion of common illnesses and diseases between two groups: 1) for those less than 13 years old (child population) and those over 13 years old (youth and adult population). The results in Figure 3.4-1 illustrate that the most common illness affecting both groups are fevers and colds. Typically, fevers and colds are indicative of another health problem. Diarrhea affects 22% of the child population against only 8% of youth and adult population. The high occurrence of diarrhea may be caused by the lack to safe, potable water coupled together with improper sanitation. The older population suffers from hypertension, tuberculosis and diabetes.

⁶ RHU engages in a broad range of activities covering mostly referrals from the BHS and the preventive, promotive and curative aspects of health care. The MHCs are under the administrative and technical supervision of the Municipal Government. A municipality should have one MHC regardless of the number of population, thus the catchment area is the whole municipality.

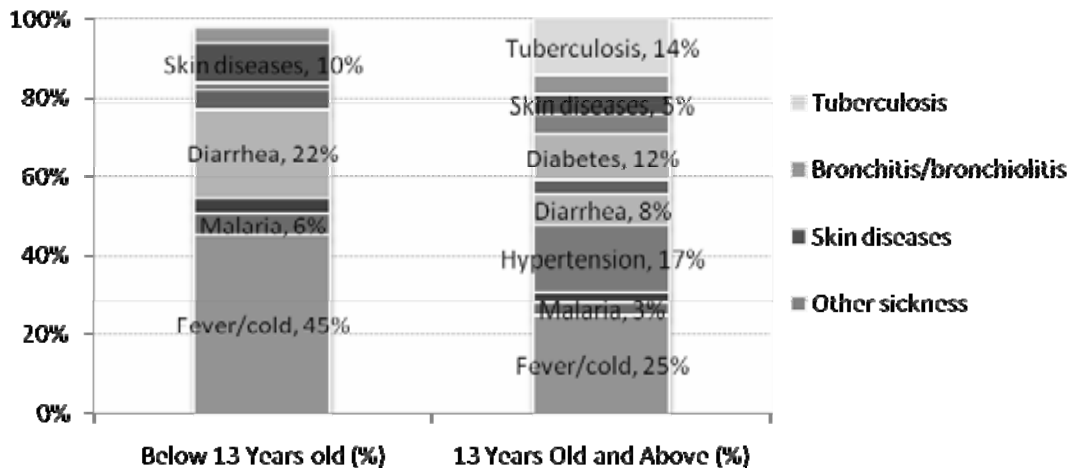


Figure 3.4-1 Common Illnesses and Diseases, Proportion to Population

Source: SERD-CAAM Social Survey Database

3.4.3.4 Synthesis and Analysis

Public health care and its operation are insufficient and the gap, especially in CAAM communities, continues to increase. There are a number of contributing factors specifically, the poor adaptability of the medical system and the unsatisfactory quality of medical services to address the diverse demands of society. Interventions in the health sector should seek to address a number of measures such as to increase the number of properly qualified medical staff, to improve the the quantity and quality of equipment and medicines and expanding basic health services to remote CAAM communities. These issues are viewed as serious constraints in CAAs health and nutrition development and also hinder hunger alleviation, poverty reduction and economic growth.

Strengthening the health service and improving access to Basic Health Services were strategies identified by the populace for a healthy CAAM community. These goals may be achieved by strengthening Health and Sanitation Education, Parenthood Child Health Care Education, upgrading of health facilities, increasing the number of health personnel, by increasing incentives and hiring locally-based health personnel. Tentative targets were also indicated including the necessary increase in budget allocation for health services, reduction of mortality and morbidity and increased access towards health services in barangays within CAAM.

3.4.4 Housing and Resettlement

The need for the resettlement of IDPs is an urgent issue that needs to be addressed given the continuous conflict and destructive effects of conflict in CAAM, particularly on its infrastructure. Moreover, it directly affects the socio-economic activities of the people and residents in CAAM. Updated data (as of April 2009) indicates the majority of the number of

IDPs in ARMM, have declined. However, the IDPs in Marawi City have increased from 2,785 (August 2008 figures) to 23,753 (2009 figures). Refer to Table 3.4-8.

Table 3.4-8 Number of IDPs in ARMM Provinces and Marawi City

PROVINCE	TOTAL SERVED			
	Families		Persons	
	Cumulative*	Now**	Cumulative*	Now*
MAGUINDANAO	45,811	36,089	231,576	181,542
LANAO SUR A	7,509	2,286	38,431	11,434
MARAWI CITY	557	4,149	2,785	23,753
LANAO SUR B	9,832	1,131	49,160	5,063
BASILAN	6,318	1,969	30,074	8,807
TAWI-TAWI	87		449	
SULU	2,190	2,190	7,993	7,993
GRAND TOTAL	72,304	47,814	360,468	238,592

*Data as of Maguindanao, as of August 19, 2008 and Shariff Kabunsuan as of August 19, 2008; Lanao del Sur A, as of August 18, 2008; Lanao del Sur B as of August 27, 2008; Basilan as of August 2008 and November 17, 2008; Tawi-Tawi as of October 7, 2008 (Panglima Sugala); Sulu as of February 6, 2009.

** Data as of April 27, 2009.

Source: Department Of Social Welfare and Development

The social survey database provides data on conflict frequency and the number of damaged basic infrastructure (refer to Table 3.4-9). Examples are as follows: barangay feeder roads and bailey bridges, which are used to bring agricultural produce from the barangays to market centers in the municipality. These are factors that account for a significant decrease in the income of farmers and residents. Exacerbating the problems is the delay in the reconstruction and rehabilitation of destroyed economic-related infrastructure. Furthermore, other structures such as school buildings, barangay multi-purpose buildings, solar dryers and other post harvest facilities and health centers are being utilized as temporary shelters and cannot be used for their primary purpose particularly at the height of armed conflict or natural disasters in communities under the CAAs.

Table 3.4-9 Conflict Frequency and Number of Damaged Infrastructure by CAAM Province

PROVINCE NAME	CONFLICT FREQUENCY	CONFLICT/ BARANGAY	SCHOOL	HEALTH FACILITY	BRIDGE	ROAD	HOUSE	REMAINING IDP
Lanao del Norte	363	1.4	19	2	7	17	86	822
Lanao del Sur	428	0.4	43	2	11	15	86	2,086
Compostela Valley	4	0.3	0	0	0	0	1	0
Davao Oriental	8	0.8	0	0	0	0	1	0
Maguindanao	568	2.0	44	13	11	19	121	34,489
North Cotabato	417	1.0	35	10	8	17	87	8,437
South Cotabato	6	0.2	0	0	0	0	2	463
Sarangani	16	0.2	0	0	0	0	6	3,741
Shariff Kabunsuan	174	0.8	14	0	2	9	26	19,456
Sultan Kudarat	150	0.7	16	3	8	8	34	2,283
Zamboanga del Norte	94	0.6	3	0	0	1	25	30
Zamboanga del Sur	15	0.1	0	1	1	1	5	419
Zamboanga Sibugay	43	0.1	1	2	0	4	7	598
Basilan	187	1.0	29	3	5	8	29	3,019

Source: NDCC, DSWD-ARMM

Consequently, the number of IDPs and damaged infrastructure are large compared to other regions. The survey indicated that school buildings and residential housing are the most affected by the conflict. More than 75,000 IDPs are still forced to away from their home barangays for, in some cases, years after their evacuation. It reveals that conflicts not only force people in a community to evacuate temporally but also to change their residence permanently.

The inadequacies of infrastructure in CAAM are perennial issues and have become priority concerns for various ODA (Overseas Development Assistance) projects or programs, but it is also imperative that interventions are administered within an overall and a holistic peace and conflict resolution framework to minimize piecemeal implementation of plans, programs and projects. The framework also needs to address the reintegration process and introduce psychosocial services.

3.5 ISSUES, CHALLENGES AND GAP ASSESSMENT IN THE ECONOMIC SECTOR

The economic component is an important aspect in the reconstruction and development of CAAM. Issues and challenges in the Economic Sector were identified as follows: agriculture, commerce, industry and tourism subsectors. The specific problems were listed as the lack of micro-financing at the banrangay level, lack of post-harvest facilities, lack of entrepreneurial capability of most farmers, poor credit access, high cost of inputs, weak social preparation, lack of stable cooperatives, low productivity, increasing poverty, the lack of assistance in marketing of farm products, and the absence of processing plants for agricultural products. As a result of these problems, proposed potential projects included encouraging investors to capitalize on rubber and coconut processing plantations, construction of village-type rubber coconut processing plantations, sustainable development of agriculture and fishery and improving the standard of living of the households in CAAM. Tourism is also regarded as an untapped and undeveloped industry, but being mindful of the need to protect and preserve CAAM's eco-tourism potentials by ensuring functional tourism sites by 2010 with an inventory of tourism potentials and environmental scanning.

3.5.1 Agriculture

The national government has laid out a specific program of action in the 10-point Agenda with point one reiterating the creation of 10 million jobs, equivalent to 1.7 million jobs per year, by tripling the loans for small business (from 1 million to 3 million micro, small, and medium enterprises) and developing 2 million hectares of agribusiness land to generate 1 job per hectare.

Mindanao region has rich natural resources and is a typhoon-free island and can enhance food

production. However, poor irrigation system and water supply in the region needs to be improved if higher crop yields are to be realized.

3.5.1.1 Agri-industries as Income Source in CAAM

The RPM profiling identified development potentials within CAAM with agriculture (coconut, fruits, rice, rubber, etc.) as the main one. This is further endorsed by the Social survey report which stated that most of the municipalities indicated agriculture as their main source of livelihood for the CAAM populace. Different crops serve as food crops as well as cash crops. Food crops are mainly cereal based such as rice and corn while cash crops include coconut, palm, rubber, banana, pineapple and fisheries.

Based on 2006 figures, 37% of the total of Mindanao's output came from the agriculture sector and 36% from the services sector. The remaining 27% came from the industry sector which included manufacturing. The CAAM provinces strongly identify agricultural production as their main source of income whilst manufacturing is only significant in Zamboanga del Sur. The service sector is not significant in the majority of the CAAM provinces except for Zamboanga del Norte and Zamboanga del Sur.

Figure 3.5-1 illustrates the proportion of agricultural products as income source at the provincial level within CAAM. Maguindanao is the largest rice producer with some 41% of its income being generated from rice and is followed closely by South Cotabato and Lanao del Sur with 36% and 34% respectively. Zamboanga del Sur and Basilan has suffered a decline in rice production according to secondary data. Zamboanga Sibugay gained 42% of its income from corn production and was followed by South Cotabato with 36% Lanao del Norte with 34% and Lanao del Sur with 30%. Mindanao contributes more than 50% to the Philippines corn production with SOCCSKSARGEN as the largest producer, accounting for some 32% of Mindanao's production. Secondary data shows that Sultan Kudarat registered the only decline in corn production in the region. With respect to coconut production, most of the CAAM provinces averaged around 35% from coconut production with Zamboanga Sibugay with 45%, Sarangani with 43% and North Cotabato with 39%.

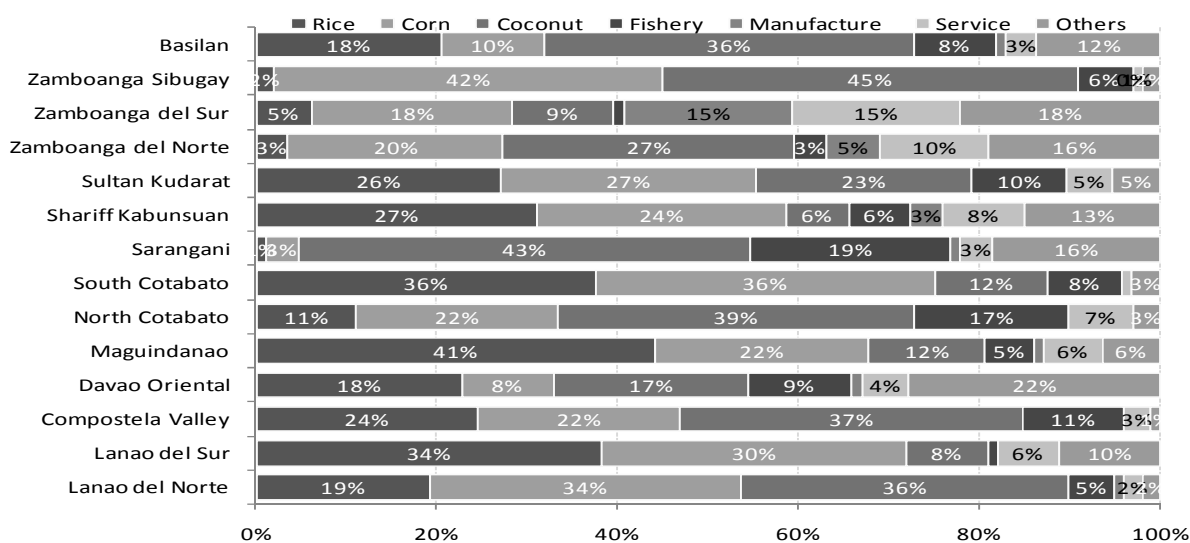


Figure 3.5-1 Proportion of Agricultural Products as Income Source per Province

Source: SERD-CAAM Social Survey Database

With the exception of Zamboanga Sibugay, manufacturing does not significantly contribute to income sources at the provincial level and the service sector only contributes to provincial incomes in Zamboanga del Norte and Zamboanga del Sur.

3.5.1.2 Agricultural Products in CAAM

The RPM profiling identified the main products of the CAAM provinces to be from agricultural, marine and aquaculture products. Basilan is concentrating on rubber and copra. Rice, corn and bananas are major crops in the Zamboanga del Norte province. The average yield in the Philippines, Mindanao and CAAM are almost identical, with Mindanao typically providing a higher yield per hectare as compared to national figures (see Table 3.5-1).

Table 3.5-1 Major Crops of Mindanao, 2003

Area in thousand ha; production in thousand Tons (TT)

LOCATION	AREA	COCONUT	TT/HA	AREA	CORN	TT/HA	AREA	RICE	TT/HA
Philippines	3,214	14,294	4.45	2,642	4,616	1.75	4,006	13,500	3.37
Mindanao	1,641	8,054	4.91	1,511	2,826	1.87	996	3,242	3.25
CAAM Provinces	885	4,458	5.04	1,116	2,054	1.84	716	2,277	3.18

Source: Bureau of Agricultural Statistics

However, its maximum potential is restricted by inadequate infrastructure such as all weather roads, inadequate socio-economic infrastructures such as health, education and water, lack of post harvest facilities, high incidence of poverty, the absence of peace and order due to armed conflict, environmental problems due to industries and ports. The RPM profiling identified

development needs within CAAM which included livelihood training, livelihood programs and projects, skills training, tourism development and increased productivity of agriculture.

3.5.1.3 Challenges and Issues in Agriculture

In CAAs, the biggest portion of household income comes from farm products such as rice and corn farming. However, the shortage of farm equipment reduces the productivity of farming in both quality and quantity. The absence of solar dryers forces farmers to sell poorly dried products at a price of which can be 25% less than well dried ones. The required farm implements and infrastructure support include: postharvest facilities, market facilities, farm-to-road market, bailey bridges or other small scale bridges and transportation.

In conjunction with the agriculture sector, the need for irrigation ranked twelfth in the IBNA and tenth in barangay profiling. Agricultural production in CAAs is highly susceptible to the lack of an efficient irrigation system. Survey findings indicated that 81% of the agricultural land is not irrigated and yet rice production is the primary crop grown in the CAAs.

Aggravating the low productivity of the small farmers is the frequent outbreak of conflict in these areas. This often leads to the massive displacement of people from their homes and from their sources of income and livelihood. Production of major crops like lowland rice, corn, fruits and other crops declines amid the abandonment of farmlands, destruction of standing crops, and limited access to farm inputs. In most of the CAA, farmers state their problem is more in accessing their land, than availability of inputs for their crops. In most cases, the farmers were aware of the importance of using improved technologies to attain high yield but because of their limited resources, they are unable to take advantage of those technologies. There is also a poor marketing system in the CAA and farmers are often tied to middlemen who typically charge very high interest on loans and pay less than market value for the crops.

3.5.2 Fisheries

Fishing equipment and facilities is the ninth priority. Fishing is one of the main income sources particularly in coastal areas. Lack of proper equipment adversely affects the yield and insufficient facilities such as landing sites and ice plants hamper the marketing and distribution. In order to have sustainable fishing activities, support for the fisheries sector should be prioritized in the coastal barangays and should include: fishing equipment, fish landing sites, micro-processing and other infrastructural inputs, farm-to-market roads, fish cold storage, processing systems, ports and other facilities. Despite the fisheries potential in Mindanao, its development has lagged behind due to various issues and constraints that inhibit the maximum potential of fishery development in Mindanao. These include the following:

- Socio-economic condition of the communities
- Inadequate infrastructure (the rural road system, fish cold storage, ports)
- Weak extension services to transfer new technology to the fishermen
- Limited access to education and training
- Inadequate credit or capital facilities for fishermen with limited or no collateral
- Non-sustainability of the production system through resource degradation
- Over-exploitation of resources
- Illegal fishing and harmful fishing practices despite existence of laws and ordinances
- Recurrence of armed conflict

The challenges in fisheries are expressed as suggested projects:

- Rehabilitation of Municipal Fishermens livelihood
- Enhancing Seaweed Farming in Coastal Barangays
- Improvement of the Marine and Inland fish Cage Culture Operation and Production
- Development of Fish Hatcheries

3.5.3 Summary of Issues, Challenges and Gaps in the Economic Sector

The gap in the economic sector is identified by the need to improve agriculture through enhancing commodity production and improving land use efficiency. There is also a need to plan for intensive production of raw materials associated with the processing industry, and to significantly improve barangay living standards through the implementation of various strategies such as enhancing the production structure of each sector, field or region to enable it to fully respond to changes in domestic demand. It will also contribute to an increase in employment and hence boost income levels. In addition with proper development tourism and mining are the leading potential income earners.

3.6 ISSUES, CHALLENGES AND GAP ASSESSMENT IN THE INFRASTRUCTURE SECTOR

Efficient infrastructure is necessary to support other socio-economic functions of CAAM. In the infrastructure and utilities sector there is a need to increase the barangays' access to potable water projects target in the next few years to aid spring development and water supply treatment and distribution. CAAM barangays, especially in remote areas, do not have electrical power supplies. The group hoped that 100 % of all municipalities and barangays will be energized in the next few years with an emphasis on upgrading the mini-hydro electric power plants and the procurement of generator sets and solar generation systems.

Other issues raised were the lack of farm-to-market roads, lack of bridges, poor and unpaved

barangay and municipal roads, sub-standard quality of barangay and municipal infrastructures, inadequate support facilities such as solar dryers and communal irrigation systems and dilapidated trading centers and public market. The need to improve the existing road network and ensure their regular maintenance was also expressed. Targets were focused on increasing paved and passable roads. A gap was identified in the need to conduct a comprehensive and integrated assessment of road networks in CAAM with a view to the formulation of a Road Network Development Plan.

3.6.1 Water Supply Subsector

Water supply significantly affects the quality of people's life and health, thus this is one of the most critical issues in the CAAs. Even though the survey result showed the presence of potential sources of drinking water in these communities there is no assurance that the water is potable and meets the quality standards of the Philippines.

Public water service (National Water Service: NWS, Local Water Utility Service: LWUS) covers only 24 % of the total population in CAAs. However, there are natural sources present at the barangay level. Hand pumps and open wells, are the most common ways of providing water to the residents in the CAAs as they are simple to construct and maintain. They provide many barangays with relatively safe water within an affordable cost. Fresh water springs are another major water source especially in the mountainous areas.

To assess the gap in the Water supply subsector, the following indicators were considered:

- Access to potable water expressed in percent of households (HH)
- Percentage of HH served by National Water System, Local Water Utility System

The national average of households with access to potable water is 80%. The RPM profiling indicated that except for ARMM and Region IX, the regions within Mindanao have 83% in Region X, 81% in Region XII and 80% in Region XIII. Region IX and ARMM have a lower percentage of households with access to safe water, with 66% and 35% respectively.

However, basing the gap on MTPDP national targets, all regions are still below the 2010 requirement of providing 92 % of households (in CAAM) with access to safe water. A range of 9-12% is the disparity for most regions while the largest disparity is in ARMM, with a 57% difference.

Similarly, all provinces were above the national average percentage with Sarangani having a percentage of 68% household with access to potable water. Lanao del Norte had a low figure of 32 %. Davao Oriental had 71%, Zamboanga del Sur had 84% and Zamboanga del Norte

ahad 93%, Zamboanga Sibugay had the lowest percentage at 35%, Maguindanao had 53% and Sharif Kabunsuan 28%.

Another evaluation is the percentage of CAAM households served by mains sources of water. These include: Level I, stand-alone water points such as hand pumps, shallow wells, rainwater collectors; Level II, piped water with a communal water point (i.e. bored well, spring system, public well and private deep well); and Level III, piped water supply with a private water point, (i.e. house connection). A specific strategy of MTPDP includes ensuring that all barangays and municipalities will be provided with water supply sources.

It is important to note the difference in institutional structure for the provision of water supply. While the overall responsibility within Metropolitan Manila falls under the Metropolitan Waterworks and Sewerage System (MWSS), outside the capital the responsibility is dependent on the existence or not of an operational water district. The responsibility for drinking water provision rests with the water district and is responsible at the national level to the Local Waterworks and Utilities Administration (LWUA). In municipalities without water districts responsibility is devolved to the concerned local government units (LGUs). Overall coordination and management of the country's water resources is the responsibility of the National Water Resource Board (NWRB).

Expressed as a percentage of the total number of households provided by National Water System (NWS) and by Local Water Utility System (LWUS), public water service provided covers only 24% of the total population in CAAM (see Table 3.8-1). Sarangani is the only province with the highest percentage of access to Level III water supply system at 69% followed by Compostela Valley at 50%. The provinces in Zamboanga peninsula and ARMM reflected a low Level III connection ranging from 3% to 28% .

Zamboanga del Norte at 56%, Lanao del Sur at 50% and Maguindanao at 59% are served by natural water resources such as flowing water, rain water, lakes and rivers. At the Mindanao level, three in every ten households draw water for drinking and cooking from springs, lakes, river or rain. Thus, one of the key objectives of the Mindanao Regional Development Plan (MRDP) is to prioritize water supply projects as the results from various data collection activities indicates that access to potable water supply remains a major concern for most of the areas in CAAM.

90% of Zamboanga Sibugay has a Level I water source. Collectively, Level I accounts for 70% of the total water supply in CAAM. Most provinces within CAAM utilize Level I because of its ease of implementation and its low cost compared with other water supply systems. This can provide a lot of barangays with easy access to safe water and at a reasonable cost, water quality may be compromised. There is no assurance that water is potable based on

Philippine quality standards and needs to be tested and monitored frequently. Individuals and households utilize available water due to the lack of an alternative source. The CAAM area is relatively rich in water resources but there is a need to conduct water quality testing to ensure the water is potable.

The reconnaissance survey conducted in CAAM provided some information on potential water sources in the following provinces and municipalities:

- Lanao del Norte: Baloi and Pantar
- Lanao del Sur: Pualas (Lake Dapao), Ganasi and Malabang
- Maguindanao: Ampatuan, Datu Paglas, Sultan sa Barongis, Sout Upi, Datu Saudi Ampatuan
- Sultan Kabunsuan: Datu Odin Sinsuat (Sapalan Falls), North Upi, Sultan Kudarat (Nuling), Parang and Matanog
- North Cotabato: Alamada, Arakan, Banisilan, Makilala, Magpet and President Roxas
- South Cotabato: Polomolok and Tupi
- Sultan Kudarat: Bagumbayan, Columbio, Kalamansig and Lebak

There is a need to conduct a more substantial study of the various water bodies that can be tapped as potential water source and particularly those within CAAM.

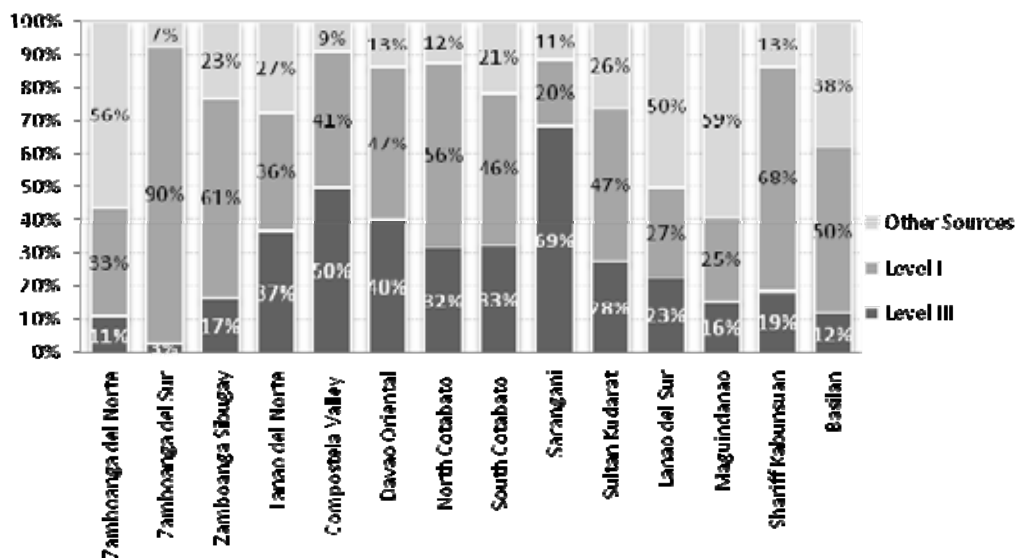


Figure 3.6-1 Water Supply Sources and Level in CAAM

Source: SERD-CAAM Social Survey Database

Figure 3.6-1 indicates that there is a large gap in the need to provide potable water supply system in CAAM provinces. Except for Sarangani (at 69%) and Compostela Valley (at 50%), all other provinces are below 50%. Most of the areas are being served by Level I water

sources as well as other sources. This indicates that the cleanliness and potability may be compromised and be attributed to its source. The provision of water supply systems should be developed alongside sanitation systems at the barangay level. Table 3.6-1 identifies the Water system level by provinces in CAAM.

Table 3.6-1 Water System Level, by Provinces in CAAM

PROVINCE	LEVEL III	LEVEL I	OTHER SOURCES
Zamboanga del Norte	0.11	0.33	0.56
Zamboanga del Sur	0.03	0.90	0.07
Zamboanga Sibugay	0.17	0.61	0.23
Lanao del Norte	0.37	0.36	0.27
Compostela Valley	0.50	0.41	0.09
Davao Oriental	0.40	0.47	0.13
North Cotabato	0.32	0.56	0.12
South Cotabato	0.33	0.46	0.21
Sarangani	0.69	0.20	0.11
Sultan Kudarat	0.28	0.47	0.26
Lanao del Sur	0.23	0.27	0.50
Maguindanao	0.16	0.25	0.59
Shariff Kabunsuan	0.19	0.68	0.13
Basilan	0.12	0.50	0.38

Source: SERD-CAAM Social Survey Database

3.6.2 Power and Energy Subsector

Figure 3.6-2 indicates that the level of electrification within the provinces of CAAM is low as compared to the national level with electricity currently only being supplied to 58% of CAAM areas. The provinces of Maguindanao, Shariff Kabunsuan and Basilan have a provincial average below 50% (see electrification ratio in Table 3.6-2). As the degree of electrification is in a small way influenced by the distance to the road network, less accessible barangays due to lack of access roads have lesser probability of being energized.

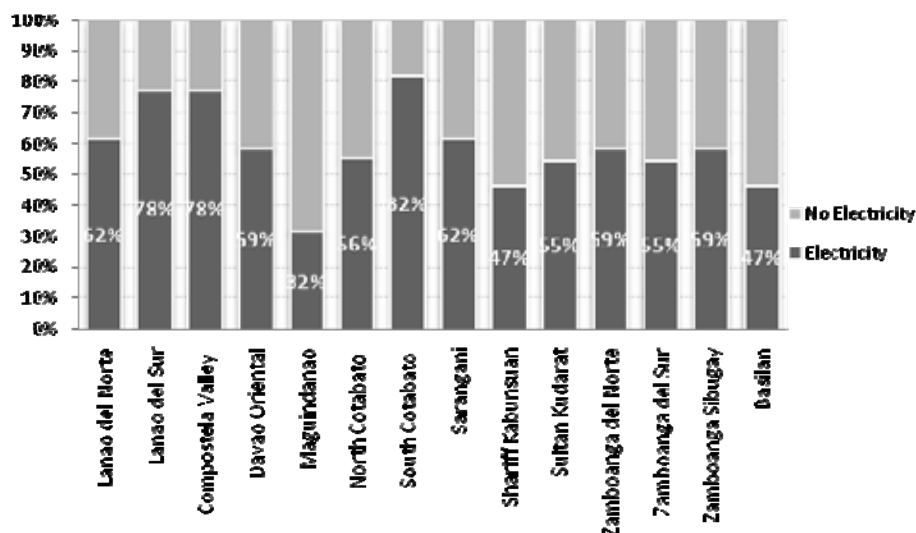


Figure 3.6-2 Bar chart comparing levels of electrification at the provincial level

Source: SERD-CAAM Social Survey Database

Table 3.6-2 Electrification Ratio by Province (%)

PROVINCE NAME	ELECTRICITY (%)	NO 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

Source: SERD-CAAM Social Survey Database

The social survey reports that among the CAAM provinces, South Cotabato has the highest access to electricity with 82% while the lowest is Maguindanao with only 32% of the province energized. Across the provinces of Zamboanga, electrification is at 59% for the provinces of Zamboanga del Norte and Zamboanga Sibugay, and Zamboanga del Sur is 55% energized. Thus, there is an urgent need to provide access to electricity in the provinces of Maguindanao (along with Shariff Kabunsuan) as well as Basilan. The figure illustrates that there is a huge gap in the provision of electricity at the provincial level. However, the demand should be addressed not only at the municipal level, but more importantly at the barangay and household levels.

3.6.3 Barangay Road Infrastructure

Fourteen barangays in Palimbang, Sultan Kudarat and 24 barangays in the municipalities of Alamada, Banisilan, and Arakan are 70-100 km away from the national road. Twelve barangays in the municipalities of Talusan, Payao and Mabuhay, 20 barangays in the municipalities of Matalam, Kabacan, Banisilan and Arakan, Cotabato and 12 barangays in Kalamansig and Palimbang, Sultan Kudarat are 50-70 km away from the national road.

71 out of 118 municipalities and cities in CAAM have 25% of access roads paved and some 100 municipalities have only 50% paved access roads in their barangays. Access roads connect the barangays to the national road. It is necessary to pave the barangay roads to ensure a longer life span. However, CAAM barangay roads are still unpaved, utilizing gravel or soil as the running surface. The lack adequate road facilities puts a strain on the development of the barangay, especially those in remote areas. This limits access to basic social services, movement of goods and people to and from the barangay, and minimizes economic potentials in terms of livelihood and trade.

The following are the municipalities with a higher percentage of paved barangay roads: Bacolod-Kalawi (Bacolod Grande), Tugaya, Ditsaan-Ramain, with barangays having 75% of paved access roads to the national highway. 90% of access roads to the national road in Marawi City's barangays are paved.

Elsewhere, only 10% of the total barangays in the following 34 municipalities have paved access roads. These are: 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.

Based on potential barangay road projects, the following municipalities are high priority areas: Sibuco, Sen. Ninoy Aquino, Datu Piang, Makilala, Baliguian, Lumba-Bayabao (Maguing), Pantar, Pikit. They have about 75% of their barangay roads unpaved and ungraveled.

3.6.4 Summary of Issues, Challenges and Gaps in the Infrastructure Sector

Interventions are needed in the water, power and energy sectors as well as in road infrastructure, to address these issues, challenges and identified gaps in the infrastructure sector. In detail, issues raised were the lack of or bad condition of barangay and municipal roads, sub-standard quality of barangay and municipal infrastructure, and inadequate facilities to support other socio-economic functions within barangay. The community reiterated the

need for an efficient infrastructure especially in remote barangays and the need for regular maintenance.

3.7 ISSUES, CHALLENGES AND GAPS IN THE ENVIRONMENT SECTOR

This section describes the general status of the environment and SEDP's recognitions of environmental issues in CAAs which identified the following issues: weak law enforcement, ignorance and a disregard of the environmental laws and regulations, forest resource destruction and degradation, absence of and poor waste management, soil erosion and land slide, flooding, and destruction and degradation of the coastal environment.

3.7.1 Key Environmental Challenges in CAAM

3.7.1.1 Weak Law Enforcement

The Government of the Republic of the Philippines (GRP) has maintained Environmental Impact Assessment (EIA) laws and various environmental standards to regulate air, water, soil, noise pollution and solid wastes. EIA is the preliminary analysis on the foreseeable potential impacts of either private or public projects. Aware of the possible negative effects in the implementation of any types of projects, GRP had instituted measures to encourage the use of EIA as a planning and decision making tool. The Law enforcing powers and necessary institutional mechanisms to endorse their effectiveness was also maintained.

The weak enforcement of the EIA in the CAAs, as compared with non-CAAs, is aggravated by the impact of long-lasting conflicts. Other causes for the destruction of the natural environment and degradation of living environment around the CAAs communities include:

The poorly implemented development projects destroying old-growth forests for constructing houses, factories and roads without securing Environment Compliance Certificate (ECC) from Environmental Management Bureau (EMB) in turn giving rise to ;

- Discharges from factories not meeting the requirement of government standards.
- Along coast line, tourism industry extends their structures beyond the foreshore lines of beaches. Vacation houses are discharging their waste into the water, which destroys the fragile coastal and island ecosystems.
- In the communities, garbage is scattered around villages in CAAs.
- Illegal logging is seen frequently in the forests around communities.
- Sewage is flowing into water streams, which people are using for their daily needs
- Children repeatedly bathe in polluted waters which are harmful to their health.

3.7.1.2 Ignorance and Disregard to Environmental Laws and Regulations

Adherence to Environmental laws and regulations and their institutional mechanism are critical to environmental conservation. The people's attitude and disrespect or disregard for laws and regulations; compliance of project proponent to carry out EIA study, submit required documents and obtain permits before the commencement of the project; and disregard to environmental rules at the community level as well as securing ECC in local government are aggravating the situation. Generally, local governments issue the permits for construction project upon securing Environmental Compliance Certificate (ECC) by project proponents.

Another issue identified is the level of awareness of the laws on environmental conservation and garbage disposal and to address the problem of solid wastes scattered particularly along streams and coasts which includes improving the sewage system of households or families.

3.7.1.3 Forest Resource Destruction and Degradation

Mindanao is the second largest island in Philippines, which encompasses diverse ecosystems from estuary ecosystems to mountain ecosystems. These diverse ecosystems have been maintained by fertile forests, which once covered almost the entire island. However, forests are altered and fragmented and have declined to approximately 20% of the island surface. In Mindanao, the highest forest coverage is in the CARAGA Region with 28%, the lowest is Region IX with 11%, and it is also the lowest in the Philippines. ARMM has 22% of forest coverage with more than half classified as open forests.

Forests are important as a source of income especially in rural areas, and CAAs are considered to be the most dependent on forestry in the Philippines. According to the Family Income and Expenditures Survey (2000), 35,288 families are dependent on forestry and hunting for their main source of income in the Philippines. Among them, 18% of families reside in ARMM which is the highest rate in the country. The forest destruction directly affects their living standard, and threatens future opportunity for economic development.

The forest coverage has been decreasing year by year on a national scale. In ten years from the year 1990 to the year 2000, Philippines lost approximately 89,000 ha of forests. The decline rate is 1.4%, which is the worst in Southeast Asia. According to the National Forest Statistics of 2004, forest coverage of the entire Philippines is approximately 24% (2003), with closed forests accounting for 36% and open forest 56%. The country maintains only 8.6% of the closed forest coverage.

These conditions are attributed to destructive exploitation of forests and mangroves affecting the ecosystems and illegal logging where people extract timbers from forests and mangroves

for fuel, timber and posts or piles for short term benefit. Other forest products like orchids, ferns and rattan are over-harvested by surrounding communities. The migratory behavior of people living within CAAM is not conducive to reforestation activities in the area.

3.7.1.4 Absence of and Poor Waste Management

Absence of and poor management of both solid waste and liquid waste is a fundamental problem in the living environment of people in CAAs. Most of the CAAs barangays do not have a garbage collection system. According to the national statistics, only 4% of solid waste is collected in ARMM. Under the absence of proper and systematic waste management, solid waste is traditionally buried, burned or dumped. It does not create many problems when the population is small, as people's consumption is limited. However, the ARMM population growth rate has been the highest in Philippines for the last 10 years. The population is expanding continuously with the twice the speed of other regions of Mindanao. Villagers are suffering from the escalating quantity of waste produced by expanding village population.

Liquid waste management is another challenge. A large amount of sewage is discharged without any treatment. Most of the households do not maintain waste water treatment facilities (septic tanks) in CAAs. Most houses do not have toilet facilities, and toilet waste is polluting areas especially along stream and coast lines. Statistics show that only 38.7% of households have access to sanitary toilets in ARMM, against the national average of 69.4%. This poor liquid waste management directly affects the quality of the water for daily use. Only 59.8% of ARMM households have access to safe drinking water against the national average of 82.7%. Many shallow water wells are contaminated with coli form because of the waste water from households. Some coastal water is also affected by coli form. Pathogens seen in these waters are a risk to human health.

3.7.1.5 Soil Erosion and Land Slide

Erosion is an intrinsic and natural process, and a certain amount of eroded soil is essential for maintaining river and estuary ecosystems. However, recent severe soil erosion and landslides in Mindanao are caused primary by human intervention such as deforestation, expansion of farm land, construction works, road building and other inappropriate land use. For example, expanding farm lands for agricultural production, results in a significantly greater rate of erosion than had the land remained under natural vegetation.

Mindanao is highly vulnerable to natural disasters such as typhoon and its associated heavy rain, since Mindanao is located in tropical monsoon climatic zone, and has maximum 350mm of monthly rainfall. Intensive rainfall easily erodes bare land, and remarkable quantity of soils and stones are flushed into rivers and marshes. Gravels continuously move downstream in

watercourses, and its sedimentation fill up riverbed that magnifies flooding in the lower river basin. Flushed gravel reaches ocean and destroy estuary and coastal ecosystems which are important for spawning of various marine life. Sediments are considered as major threat to corals reef, seaweeds as well as whole coastal ecosystems.

Mass movement is the down slope movement of rock and soil by gravity. This often results in 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 inappropriate quarrying along rivers that usually causes shoreline and stream bank erosion. Coastal erosion is likewise a natural process but 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.

3.7.1.6 Flooding

From 1995 to 2005, flooding has accounted for the worst natural disasters in the Philippines. In Mindanao, it has caused the overflow of the Cotabato River Basin (CRB). The CRB is the second largest river in the Philippines, next to the Cagayan River Basin in Region II. Historically, CAAs along the so-called Cotabato River system which exits to the sea through the Rio Grande de Mindanao or also called Cotabato River or Mindanao River. Another river branching out of Cotabato River System is the Tamontaka River. This explains Cotabato City being located in the delta area of both rivers and carrying large volume of river water towards the sea. The flooding also affected many adjacent municipalities in Maguindanao Province.

Flooding is caused by stagnation of large volume of water in one place generally after intensive rain. The stagnation is magnified by large volume of sediments in riverbeds. High tide amplifies the flooding in area of lower elevation. Water hyacinths and lilies accumulated at bridge pillars in Cotabato River are considered to be one of the factors for the amplification of flooding. Area around the Liguasan Marsh is also to be considered as highly vulnerable to flooding. Historically, Liguasan Marsh is a critical area for "natural flood control", which absorbs water and discharges from different tributaries of the Cotabato river system, and prevents severe flooding. Recently, larger quantity of discharges from the Pulangui River accumulates in and around the marsh, and thus the marsh becoming shallower. The marsh's function for flood control has been significantly destroyed.

Areas in CAAM prone to various hazards are identified in Table 3.7-1.

Table 3.7-1 CAAM Provinces, Municipality and Barangay Subjected to Hazards

TYPE OF HAZARD/S	LOCATION: REGION, MUNICIPALITY AND BARANGAY
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 Siosoccon, 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 %, a total of 847,422 hectares or 43 % of the total land area of the region are severely eroded, particularly the provinces of Compostela Valley, Davao del Norte and Davao del Sur. 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
	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; Gen. Santos
Water-related Flooding	Region IX: Coastal barangays of Zamboanga City, Zamboanga del Sur and Zamboang del Norte
	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. Remarks: 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.
	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	Region X: 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. 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, Don Marcelino.
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.
	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 socio-economic conditions.
	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 strata volcano
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

Source: DENR

3.7.1.7 Areas affected by Volcanic Hazards

There are areas prone to different weather-related and other natural hazards such as flooding, tsunamis, earthquakes, and volcanic eruptions. Presented here are the most vulnerable areas in the Mindanao group of islands to natural disasters.

Areas affected by volcanic hazards. 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.

Lahar-prone Areas. 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.

3.7.1.8 Destruction and Degradation of Coastal Environment

The river bodies in the Mindanao coastal areas are rich in phytoplankton because of its ample exposure to sunlight needed for primary photosynthesis production. The coastal areas and seas have varied species of fishes and other aqua-marine products which explains the high potential for fish production and related industries. Critical marine ecosystems for biodiversity, such as coral and under water plants, are also seen along coasts. Mangroves in estuaries provide many important ecosystem services that enhance the overall productivity of coastal areas. The Mangroves act as buffer zone against tropical cyclone and tidal waves, and stabilize and prevent soil erosion.

Table 3.7-2 Causes for Degradation and Destruction of Coastal Environment

TYPE OF ENVIRONMENT	MAJOR CAUSES
Terrestrial Environment	<p style="text-align: center;"> Agricultural waste and chemical loading Industrial waste and chemical loading Urban waste and chemical loading Tourism waste from foreshore lines Dumping from communities in coast line Runoff from deforested areas Runoff from quarrying and mining sites Runoff from slush and burn farming sites Mangrove deforestation for fish pond development </p>
Aquatic Environment	<p style="text-align: center;"> Over fishing Illegal fishing Destructive fishing Poison fishing Dynamite fishing Waste disposal from ships </p>

Source: DENR

According to the National Forest Statistics of 2004, forest coverage of entire Philippines is approximately 24 % (2003), and among them, Mangrove forest consist of only 3 %. Mangrove forests are a particularly precious resource not only for the coastal environment, but also for the country's biodiversity. However, mangroves are rapidly being cleared for the development of aquaculture ponds.

Illegal fishing and encroachment is interrelated to the security situation and physical accessibility of the area. Due to the conflicts, the security situation and accessibility of some areas in CAAs is poor, and as a consequence they are considered to be more preserved than non-CAAs. However, inspection and monitoring activities are also interrelated to the security situation and physical accessibility. Under the weak or absence of law enforcement, some areas are free for illegal fishing and encroachment, which results in the overexploitation of fish and degradation of the coastal ecosystems. Table 3.7-2 reflects major causes of degradation and destruction of the coastal environment. Thus, it is imperative to develop a comprehensive coastal resource management plan to be implemented within CAAM.

Mindanao's coastal environment has been severely damaged particularly in the last decade. Degradation and destruction of the coastal environment is caused by multiple factors occurring in both the terrestrial and aquatic environments, which are summarized in Table 3.7-3. Most are related to the development activities in coastal regions, where population and development activities are concentrated. Sedimentation from upland areas, caused by deforestation, quarrying, mining, and farms, is considered as the most critical problem. In addition to the upland problems, inappropriate fisheries activities, such as dynamite fishing, poison fishing in protected marine areas are the next critical problem. Illegal encroachment and poaching by commercial fishers in municipal waters are causes of resource exploitation. The issues related to domestic and industrial waste management in coastal regions are challenging. During the implementation phase, various measures need to be implemented.

Table 3.7-3 Key Environmental Consideration during Project Implementation

CHECK ITEMS	KEY CONSIDERATION
Natural Environment	
Topography and geographical features	Planned facilities are not situated in areas where topographic features and geologic structures are fragile and may not result in slope failure and land slides.
Soil erosion	There is no risk of severe soil runoff at construction sites
Ground water	Plan will not involve extraction of a large volume of groundwater in both conservation and operation stages.
Coastal zone	Planned facilities are not situated in foreshore and mangrove, and prospective project activities will not affect the coral reefs and spawning area for marine life.
Ecosystems/ Wildlife/ Biodiversity	Planned facilities are not situated in important ecosystems or wildlife habitats.
Protected Area	Project site is outside NIPAS areas, and prospective project activities will not affect the protected areas negatively.
Landscapes	Plan will not include large-scale alteration of topographic features and geologic structures.

CHECK ITEMS	KEY CONSIDERATION
Pollutions & Public Hazards	
Air pollution/ Global warming gas	Construction of facilities will not emit considerable amount of air pollutants and greenhouse gases.
Water pollution	Construction of facilities will not emit considerable amount of water pollutants.
Soil contamination	Construction of facilities will not cause soil contamination.
Waste	Construction plan includes treatment and disposal of wastes such as oils and chemicals, and electric lines.
Noise & Vibration	Noise and vibrations during the construction and operation comply with environmental standards and occupational health and safety standards.
Ground subsidence	Plan will not involve extraction of a large volume of groundwater that may cause land subsidence.
Offensive odor	There is no risk of offensive odor due to soil contamination, from wastes.
Accidents	Construction plan includes measures to reduce the risks of construction workers and local residents having accidents.

3.7.2 Summary of Issues, Challenges and Gaps in the Environment Sector

Environmental issues were identified as being present in CAAM. These are unabated forest denudation, environmental degradation, presence of illegal logging, poor forest protection and management, destruction of wildlife sanctuaries, poor enforcement of environmental laws, lack of proper disposal of waste, unsustainable mining, lack of flood mitigating projects, air and water pollutions, reduced biodiversity, denuded watershed, lack of coastal protection and management. Other related issues are the issue of land ownership which is related to securing the rights given that present occupants live on untitled lands.

Sustainable development must ensure environmental protection. This requires the unified effort of the government, private sector and the civil society to ensure that interventions should ensure that degradation of CAAM's natural environment is properly addressed and appropriate mitigating measures are put in place. To avoid negative impacts on the environment resulting from the implementation of SEDP, it is important to put in place social and environmental safeguards to ensure environmental integrity.

3.8 ISSUES, CHALLENGES AND GAPS IN LOCAL GOVERNANCE AND ADMINISTRATION

In the area of local administration and governance, the group identified graft and corruption, poor fiscal management and revenue collection, insufficient capacity of political leaders and poor project monitoring and evaluation approaches. The group expressed the need to strengthen and gain capacity in all these areas.

3.8.1 Defining Local Governance and Administration

The term local administration or governance is used with great flexibility. While this is an advantage, it is also viewed as a source of difficulty at the operational level. Therefore, depending on the context and the overriding objective desired, good governance has been said at various times to encompass full respect of human rights, the rule of law, effective participation, multi-participant partnerships, political pluralism, transparent and accountable processes and institutions, an efficient and effective public sector, legitimacy, access to knowledge, information and education, political empowerment of people, equity, sustainability, and attitudes and values that foster responsibility, solidarity and tolerance.

In particular, the identified need to strengthen the capacity of BDA, as one of the priorities needs to relate to more effective and efficient management and implementation of development programs and projects. The capacity and capability building are required in the areas of financial management, reporting, record keeping, monitoring, supervision of staff, working with communities, recruiting staff, training staff, negotiation, project management, and conducting assessments.

3.8.2 Results from the Key Informant Interview

The key informants for this study identified at least eight distinct institutional issues under the institutional and governance, with bad or ineffective governance topping the list. The other challenges include, unstable peace and order, inadequate social services, failure to provide opportunities for economic development, livelihood and entrepreneurship; social discrimination and marginalization of Bangsamoro and indigenous peoples, dole-out mentality, poor project implementation of externally funded projects or programs, and sovereignty issues.

In addition to the findings of the KII ARMM respondents underscored the concerns for the recognition of the uniqueness of their region in terms of institutional and governance, challenges not found or strictly observed in other areas. This refers to the integration and adapting relevant Islamic concepts in the governance of the Bangsamoro people.

Significantly, under the governance challenges, all regions in Mindanao cited rampant graft and corruption, self-centered and power-hungry traditional politicians; too much politicking including a partial or partisan Commission on Elections (COMELEC). In Region XII, all informants also cited the need to build the capacities of local officials and leaders.

Their lack of capacities in managing and leading their LGUs and offices has resulted to inefficient and ineffective governance giving way to uncontrollable graft or corrupt practices.

Unstable peace and order was cited frequently in all the interviews, and informants invariably cited the need to have security sector reform to include the proper enforcement of the law and the rule of law to prevail. Armed conflict has aggravated the lack of security among community members and in many areas, even without armed conflict, there still prevails a feeling of insecurity even with intense militarization. Some civil society informants claimed that militarization has increased the feelings of insecurity among the constituents. This is probably due to the notion that militarization, which is a strategy for securing states, does not necessarily lead to a secure populace.

3.8.2.1 Technical and Managerial Competence

Technical and managerial competence of civil servants is an obvious factor of good governance. This may be less of a constraint than it used to be, as access to education has improved, but rapid changes require the ongoing development of skills.

3.8.2.2 Organizational Capacity

Good governance has to be built on the quality of organizations, so that development is based on this rather than simply relying only on political will, the personal will of a strong leader and state power, which may not be sustainable over the longer term.

Having skilled staff is not sufficient if the government organizations do not have the capacity to make good use of these skills. Capacity of government organizations is a key factor in the provision of many important services to businesses and the public, and in creating conditions for economic progress and social cohesion.

The organizational structure and management systems of government have been reformed in many OECD countries. The problem was often seen as excessive centralization, inflexibility and lack of efficiency. The key response to this has been to provide managers and staff with more autonomy in operational issues, in return for more accountability for performance. In other countries the problem may be a lack of regularity and discipline in the administration, often with associated corruption. In such situations the response typically will need to focus on strengthening the basic management systems of government involving, to a certain extent, increased bureaucratization.

3.8.2.3 Reliability, Predictability and Rule of Law

The rule of law refers to the institutional process of setting, interpreting and implementing laws and other regulations. It means that decisions taken by government must be founded in law and private firms and individuals are protected from arbitrary decisions. Reliability requires governance that is free from vicious incentives through corruption, nepotism,

patronage or capture by narrow private interest groups, guarantees for property and personal rights and achievement of social stability.

Reliability and predictability requires certain degree of political stability. Governments need to be able to make credible commitments and persuade the private sector that decisions will not ultimately be reversed due to political uncertainty. While this is not necessarily related to a particular political system in the short term, over the longer term democracy enhances stability by giving a voice to citizens to express their preferences through open competition.

Moreover, it does not need or require very specific which may lead to rigidities and risk of selective application of regulations. Interpretation and effective implementation may require a degree of discretion but may be counterbalanced by administrative procedure, legislation and external reviews of decisions (appeal mechanisms, judicial review, ombudsman).

3.8.2.4 Accountability

Accountability can be an end in itself, representing democratic values, and a means towards the development of more efficient and effective organization. Politicians and public servants are given enormous power through the laws and regulations they implement, resources they control and the organizations they manage. The problem of accountability is a key factor to curb graft and corruption and ensure that power is used appropriately and in accordance with the public interest. Accountability requires clarity about who is accountable to whom and for what, and that civil servants, organizations and politicians are held accountable for their decisions and performance.

Accountability, in the CAAM is greatly influenced by the traditional form of governance and the lack of acceptable systems making officials and project implementers accountable for their performance and utilization of resources and in particular, the financial resources.

3.8.2.5 Transparency and Open Information Systems

Transparency is an important aspect of good governance, and transparent decision making is critical in making sound decisions and investments both in government and the private sector. Accountability and the rule of law require openness, good information and communication in order that the higher levels of administration, external reviewers and the general public can verify performance and compliance to law.

Governments have access to a vast amount of important information. Dissemination of this information through open information systems can provide specific information that firms and individuals need to be able to make good decisions. Capital markets depend on information openness.

3.8.2.6 Participation

Participation can involve consultation in the development of policies and decision-making, elections and other democratic processes. Participation gives governments' access to important information about the needs and priorities of individuals, communities and private businesses. Governments that involve the public will be in a better position to make good decisions, and the decisions once made, will have more support. Even though there are no direct links between democracy and every aspect of good governance, clearly accountability, transparency and participation are reinforced by democracy, and are factors in support of democratic quality.

Summary of Issues and Challenges in Local Governance and Administration

To recap, five key terms have been highlighted as being required to ensure strong local administration or governance. These are; technical and Managerial Competence, Organizational Capacity, Reliability, Predictability and Rule of Law, Accountability, Transparency and Open Information Systems and Participation.

3.9 NEEDS ASSESSMENT BY SECTOR AND SUB-SECTOR

The survey results determined the needs of the LGU representatives and line agencies of the government and that they were aware that the most pressing needs were those that addressed the minimum basic needs (MBN) such as health service, access to education and housing and resettlement. Other issues such as those related to social welfare and sports; issues related to commerce, industry, tourism and livelihood; infrastructure issues; environment issues; and governance and fiscal management issues were also raised.

Thus, to improve the situation assessments are required to:

Identify programs and projects that would help alleviate poverty and rehabilitate basic human needs to raise its service level to catch up with Mindanao and the country as a whole.

Drive sustainable economic development especially in agro-fishery, small scale industry and the mining industry in the short-term.

Prioritize most vulnerable, conflict-affected areas in CAAM to implement projects and programs.

Promote ownership of projects through a bottom up approach and active participation of the population in the planning, formulation and implementation stages and ensure sustainability

through regular monitoring and evaluation.

Contribute to peace and public order by building trust and eradicating hostilities in the process of developing the SEDP plan. (SEDP formulation emphasizes the need for integration and harmonization of strategies with indigenous culture, traditions and customs).

3.9.1 IBNA and Barangay Profiling Recommended Need Categories

The results of IBNA and barangay profiling clearly show that the people have a strong need for a better road network as this point was given the highest priority by the community of all the barangay profiling and IBNA. Road projects, however, often require large capital investment and need to be planned to maximize the number of beneficiaries and cost-effectiveness associated with the public investment. Thus, it will be necessary to produce a master plan of all the farm-to-market road requirements in the CAA's and study the economic benefits to prioritize the sequence of road construction.

The sector on *Basic Utilities* (water supply and electrification), ranks second in the barangay profiling and fourth in the IBNA. As these needs are directly related to the quality of people's life and can often be satisfied at barangay level, this sector should be considered the most urgent target in the Immediate Term Plan. However, feasibility studies are still required as it may be more appropriate to install a large-scale water system or grid system that extends over the boundary of individual barangays. The results of the studies should be used to produce a master plan to maximize the positive impact of the development interventions.

The *Agriculture* subsector ranks third in the barangay profiling and second in IBNA. Given that the primary income resource of CAAM people is in agriculture, it is necessary to examine potential quick impact projects to improve farm productivity. Although the *Fisheries* sector accounts for a relatively small portion of the total needs, fishing is still one of the main livelihood activities. Thus, support for *Agriculture* and *Fisheries* sectors must be strengthened to enhance income opportunity for the CAAM populace. Interventions may take the form of facility and equipment provision, and capacity building aiming at an improved livelihood at both the community level and on an individual basis. Interventions under these sectors are suitable for projects under the Immediate Term Plan.

The sector of *Education*, the fourth priority of barangay profiling and the third in IBNA, is also a high demand sector in CAAM. Although needs mainly focus on the provision of education facilities, typically school buildings, to improve other measures are required such as hiring qualified teachers, providing sufficient support facilities and supplying adequate educational and basic materials. There is an identified need to re-examine the present approach to education in the Philippines as a whole and to develop a comprehensive study for

Education. However, some school buildings which need immediate repair and improvement should be considered as potential projects under the Immediate Term Plan.

The fourth ranked need in the barangay profiling is the Health sector (sixth in IBNA) and has a significant impact on human well being in the area. Assistance to the *Health* sector can be provided in the community and thus it falls into the framework of the Immediate Term Plan. However, the lack of qualified human resources is a serious constraint in CAAM at present. The training of barangay health workers and midwives should be incorporated into the sector program in the short term, and community initiatives to avail of qualified medical nurses and doctors should be explored in the longer term. Therefore, the health sector program should be divided into short-term and long-term. The former is to tackle the emergency human well being issue with the provision of relatively simple facilities equipment and training opportunities for the exiting health workers, whilst the latter will require more ambitious projects to alleviate the shortage of qualified medical workers in the future.

At fifth place both in IBNA and Barangay profiling is Culture and Sports reflecting the need for recreation, especially among the youth. This is not considered as an immediate requirement to better the lives and livelihoods of the general populace in the CAAM and has not been considered as part of the Immediate Term Plan.

The *Livelihood* sector, the sixth priority in barangay profiling and eighth in IBNA can be incorporated in the Immediate Term Plan as it can help people who have only limited income sources, especially for women in the barangays.

Based on the above, the *Basic Utility*, *Agriculture*, *Health* and *Livelihood* sectors should be the focused areas of the Immediate Term Plan

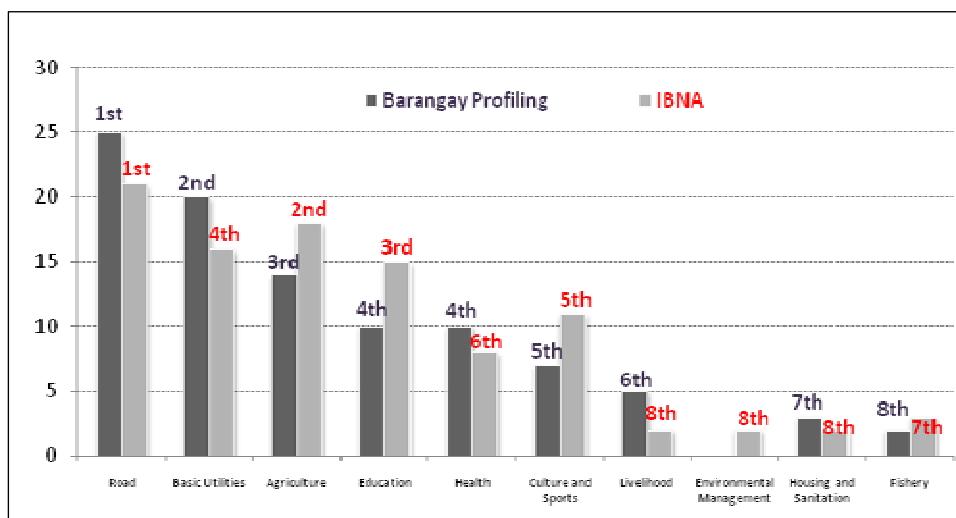


Figure 3.9-1 Results of Barangay Profiling and IBNA

3.9.2 Line Agency Matrix Survey Results

The sectors identified in the List of Priority Projects (see Figure 3.9-2) submitted by the LGUs in the conflict affected areas in Mindanao (CAAM) consist of the following, Social, Economic, Infrastructure, Economic, Environment, and Local Administration sectors.

The results from the Consolidated LGU Matrix of High Priority Projects indicate that the Social Sector recorded the largest number of projects with 35% of the priority projects requested by the LGUs. This implied that the LGUs consider basic social needs such as education, health, and socialized housing and the infrastructure sector covering potable water supply and electrification as the most pressing needs of their constituents.

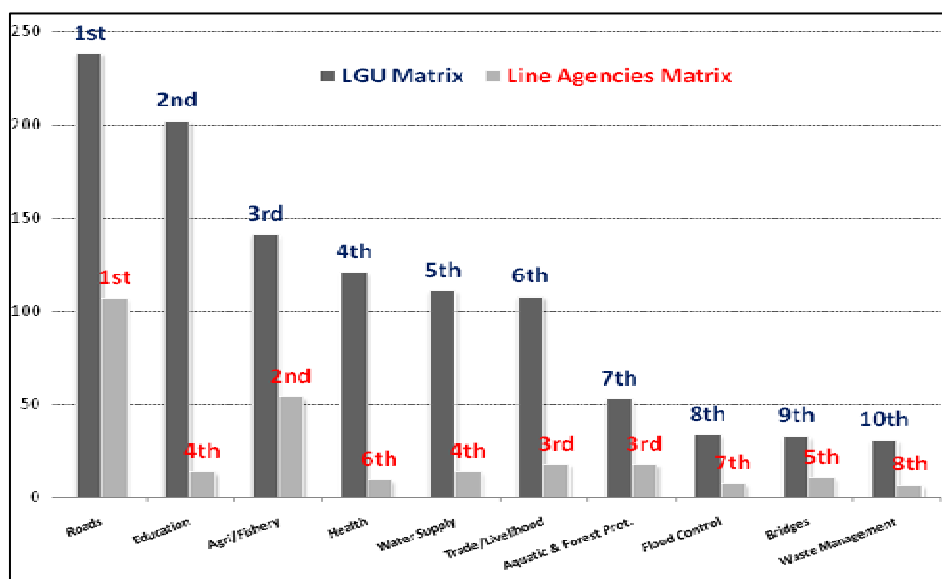


Figure 3.9-2 Priority Projects by Sectors at CAAM Level (LGU and Line Agency)

The subsector requiring the most projects is **Roads**. It ranked first in both LGU and Line Agencies Matrix Surveys. These projects include construction and rehabilitation of farm-to-market roads, and the improvement and paving of national and provincial roads.

The **Education Sector** ranked second in the LGU Matrix and fourth in Line Agency Matrix. The projects required include the construction and renovation of school buildings and daycare centers, the installation of ICT facilities or internet rooms and the construction of speech laboratories.

Agriculture and Fishery ranked third in LGU matrix and second in line agency matrix. The projects required include the expansion and improvement of communal irrigation systems, the establishment of post-harvest facilities such as solar dryers and warehouses, training on farming techniques and the transfer of skills to farmers.

The **Health Sector**, the fourth priority of LGUs and sixth priority of LGU Agencies requires projects such as the construction and renovation of health centers, the provision of medical equipments and facilities including ambulances, and the capacity building for health workers.

Water Supply which largely entails projects such as construction of water systems at levels 1, 2 and 3, shallow and deep well installation and maintenance and the development of other basic sources of potable water such springs, ranked fifth in LGU matrix and fourth (of equal rank with Education) in the LGU Agency matrix.

Livelihood ranked sixth in LGU matrix and third in the LGU Agency matrix. This mainly includes development and promotion of the One-Town-One-Product system (OTOP), the nurturing of Small and Medium Enterprises (SMEs) and the enforcement of fair trade laws.

Aquatic and Forest Protection and Conservation is also one of the top ten priorities of the LGUs and Line Agencies. It ranked seventh in the former and third (of equal rank with livelihood in Line Agencies' ranking) in the latter. It requires projects such as watershed rehabilitation, the management of foreshore areas, reforestation, and the conservation of marine sanctuaries.

Flood Control, which is the eighth priority of LGUs and seventh priority of Line agencies include projects for the construction of drainage systems and culverts, and dredging and construction of spillways.

Bridges is placed ninth in LGU matrix and fifth in line agencies matrix. The required projects include the inspection and where required the construction and rehabilitation of all the bridges in the area.

Waste Management projects include; the development of dump sites for solid waste, the establishment of controlled outfalls for sewage control and an awareness campaign for water and air pollution

LGU Matrix Survey Results

As discussed earlier, at the CAAM level, among the key five sectors identified from the LGU Priority Projects (see Figure 3.9-2), the Social sector ranked first, followed by the Infrastructure sector, the Economic sector, the Local Administration sector, and the Environment sector.

At the provincial level starting with the province of *Zamboanga del Norte*, the Social sector ranked first as it accounted for 42% of the priority projects. This is followed by the Economic

Sector with 26%, the Infrastructure sector with 15% the Environment sector with 10% and the Local Administration sector with 4%.

In *Zamboanga del Sur*, the Social sector also topped the sectors as it covered 50% of the proposed priority projects in the province. Coming next was the Economic sector with 19%, then the Environment sector with 15% the Infrastructure sector with 12%, and the Local Administration sector with 4%.

The Social Sector also ranked first in the province of *Zamboanga Sibugay*. It comprised 34% of the proposed projects in the province. The Infrastructure sector, which accounted for 25% , ranked second among the sectors. Third was the Economic sector with 20%, followed by the Local Administration sector with 13% and the Environment sector with 8%.

Isabela City, which is geographically situated in Basilan but is under the political jurisdiction of Region IX, its Economic sector recorded the highest percentage at 37%, The Social sector was placed second with 24%. This was followed by the Infrastructure sector, with 16%. The Local Administration sector ranked fourth with 13% and the Environment sector was fifth with 11%.

The Social sector was again first in *Lanao del Norte* and accounted for 44% of the priority projects. The Environment sector was second with 17%. The Economic sector, the Infrastructure sector, and the Local Administration sector followed with 15%, 14% and 10% respectively.

In *Davao Oriental*, the Social Sector was first with 31%. The Infrastructure and the Local Administration Sector are placed to second as they both recorded 23 %. Ranking third is the Economic sector with 15 % followed by the Environment Sector with 8 %.

In the province of *North Cotabato*, the Social Sector is again placed to rank one as it covered 38 % of the priority projects of the province. The Infrastructure Sector comes next with 23 %. On the third rank is the Local Administration with 17 % followed by the Economic Sector with 13 %. No projects are recorded for the Environment Sector.

The Social Sector is also the number one ranking sector in the province of *Sarangani*. It covered 38 % of the priority projects of the province. On the second rank is the Infrastructure Sector with 29 %. The Economic sector ranked third with 13 %, followed by the Local Administration Sector with 6 % and the Environment Sector with 5 %.

In *South Cotabato*, the Infrastructure Sector atop the sectors having accounted for 42 % of provincial priority projects. This is followed by the Economic Sector with 31 %. The Social

Sector is placed to third with 12% while the Environment and Local Administration Sector are both in the fourth rank with 8%

In the province of *Sultan Kudarat*, the Social Sector is again in the first rank with 34 %. Ranking second is the Economic Sector with 26%. The Infrastructure Sector, with 25 %, ranked third. The Environment Sector is in the fourth rank with 9% followed by the Local Administration Sector with 6%.

The Local Administration Sector ranked first in Basilan as it accounted for 30 % of the priority projects of the province. This is followed by the Social Sector with 24 %. Ranking third is the Economic Sector with 16 %. The Infrastructure and Environment Sector are both on the fourth rank with a uniform 15 %.

In *Lanao del Sur*, the Social Sector again fills the top rank, comprising 34 % of the priority projects. The Infrastructure Sector is placed to second with 24 %, followed by the Local Administration Sector with 18 %. Ranking fourth is the Economic Sector with 16 % and in the fifth rank is the Environment sector with 8 %.

In *Maguindanao*, the Social Sector is on the first rank with 34 %. Coming next is the Local Administration Sector with 22 %. The Economic Sector is placed to third as it recorded 19 %. On the fourth rank is the Infrastructure sector with 17 % and lastly, the Environment Sector with 8 %.

Shariff Kabungsuwan province puts the Infrastructure Structure as its number one priority sector, accounting for 29 % of its priority projects. The Social sector, with 24 %, ranked second. The Economic Sector follows with 22 %. On the fourth ran is the Local Administration Sector with 15 %. The Environment Sector is placed to fifth with 9 %.

3.9.3 Workshop Results

The need to address IDPs through the provision of housing and resettlement support programs as well as the need to strengthen capacity was established as urgent needs during the LGU and line agency workshops.

3.9.4 Defining the Gap Level in Education, Health, Water and Electrification Subsectors

The results of the Needs Assessment reaffirms that the Social Sector ranks number one in most of the provinces. The identified projects indicate that high priority needs are for minimum basic needs such as education, health and housing.

The need to provide basic human needs like access to health, education as well as peace and order and good governance are prerequisites towards improving a community. It is necessary to identify the issues and challenges as well as the gaps and potentials to derive solutions appropriate to the identified issues and challenges. The assessment of Needs is two-pronged and based on a bottom-up approach wherein the needs are based on the assessment from the primary data collection at the grassroots level (community or barangay) and at the same time considering the national government's 10-point agenda where the latter has been translated into quantifiable targets.

The objective is to determine the current needs and future requirement in the following subsector: Education, Health, Water and Power and Energy.

3.9.4.1 Education Subsector

The 10-point Agenda requires education for all constituents. The national government targets the provision of 1 elementary school and 1 secondary school per barangay.

School Facilities for School Age population

School facilities to school-age population reflects that each elementary school caters to a catchment population of 356 students at the national level, 372 students at the Mindanao level, and CAAM 537 students in CAAM. The Philippine ratio for the provision of secondary school is 1,295 for each secondary facility, with 1,427 secondary school students at the Mindanao level and 1,108 students catchment population at the CAAM level (see Table 3.9-1).

To catch up with the Mindanao level, 1,113 elementary schools are needed to be built in CAAM to reach the ratio of 1 elementary school to 372 school age population. To catch up with Philippine level, 1,276 elementary schools are needed to be built in CAAM to reach the ratio of 1 elementary school to 356 school age population.

However, it is still recommended that initially the target should be to attain CAAM average among the provinces. Facility provision is disproportionately distributed within the provinces of CAAM. Figure 3.9-3 illustrates the density distribution of elementary school facilities within CAAM by province.

Table 3.9-1 Number of School and Ratio to School Age Population, SY 2005 to 2006

AREA	ADMINISTRATIVE UNIT		NUMBER OF SCHOOLS		2005 PROJECTED SCHOOL-AGE POPULATION ^b		SCHOOL TO SCHOOL-AGE POPULATION RATIO	
	BRGY	MUN	ELEM	SEC	ELEM	SEC	ELEM	SEC
Philippines	41,980	1,501	35,526	6,002	12,638,700	7,774,800	356	1,295
Mindanao	10,049	412	8,813	1,414	3,281,900	2,017,400	372	1,427
CAAM	3,882	169	2,503 ^a	736	1,345,000	815,500	538	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	ND	ND	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 ^a	232	12	142	38	c	c		
Lanao del Sur	1,156	40	404	137	133,700	82,300	331	601
Marawi City ^b			ND	ND	d	d		
Maguindanao	281	22	182	52	159,500	98,200	876	1,888
Shariff Kabunsuan ^c	210	11	156	50	e	e		

Source of Actual Data: National Statistics Office (NSO), National Statistic Coordination Board (NSCB); CAAM Data based on SERD-CAAM Social Survey Report (Barangay Profiling), 2008; a exclusively utilized the number of elementary school; b student population was interpolated from the actual CAAM population and projected based on 1995-2000 annual population growth rates; c population included in region IX; d population included in Lanao del Sur; e population included in Maguindanao; Note: ND – No Data, MUN – Municipal, BRGY – Barangay, ELEM – Elementary, SEC - Secondary

Seven provinces are below the CAAM average of 1:537 (school to school age population). The highest is in South Cotabato with elementary schools serving an elementary population of 1,942, in Lanao del Norte: 1,492 and Compostela Valley: 1,207.

In respect of the secondary school facility provision, CAAM level indicates that 1,108 secondary school age population is being served by one secondary school facility with seven provinces falling below this figure. The provinces are: Zamboanga del Norte, 2,144; Zamboanga del Sur, 1,760; Lanao del Norte, 3,648; Compostela Valley, 1,140; South Cotabato, 3,518; Sarangani, 2,039; Maguindanao, 1,888.

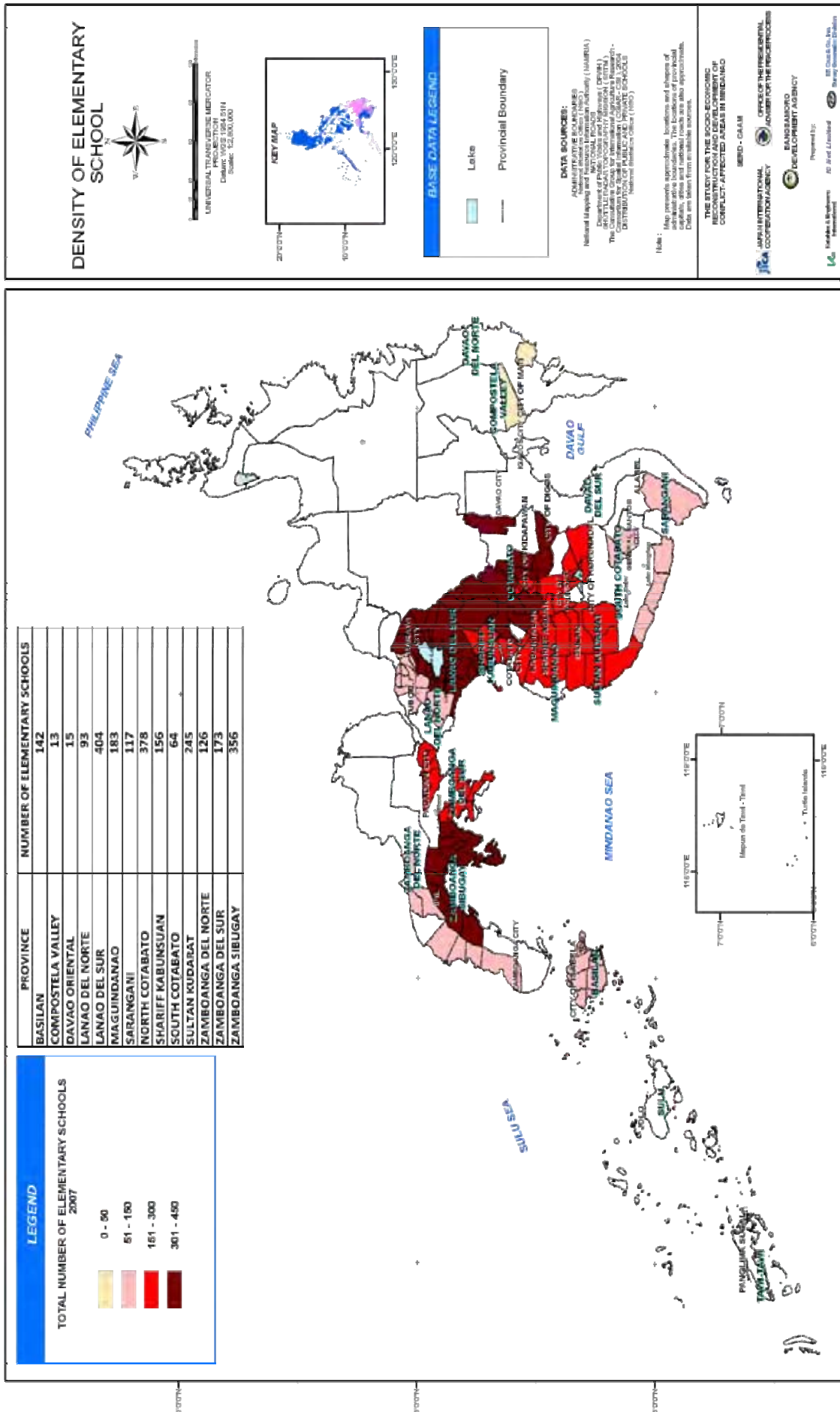


Figure 3.9-3 Distribution of Elementary School in CAAM

(1) Elementary and Secondary School Provision in Mindanao and CAAM

Unlike the national trend of increasing the number of public secondary schools in aggregate terms, secondary data shows a decline in Mindanao’s provision of education facilities. From SY 2004/2005 to SY 2005/2006, the decline was measured as 3.92% in Mindanao as against a national average growth of 0.47%⁷. For elementary schools, negative growth in the number of schools was observed in the nine CAAM provinces with the exception of the Compostela Valley where a 2.24% increase in the number of elementary schools was recorded. In contrast, in South Cotabato the largest decline in the number of elementary schools was reported with a negative growth rate of 3.30%. The national average growth was recorded at 6.02%t. Refer to Figure 3.9-4 for the growth rate of elementary and secondary schools.

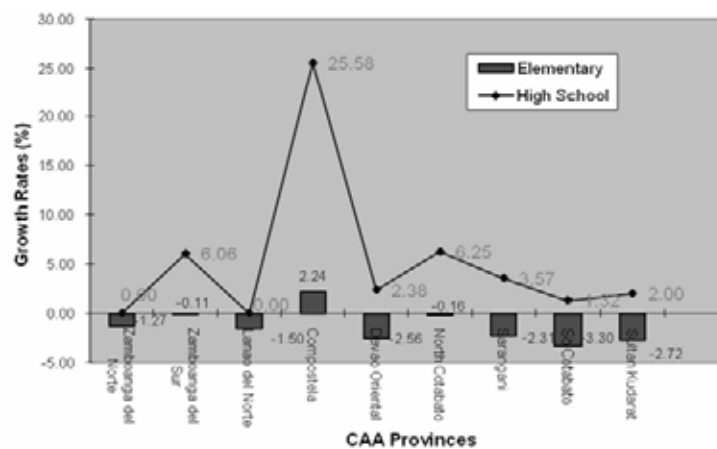


Figure 3.9-4 Growth Rate of Elementary and Secondary Schools, CY2005-06

Based on the gap identification on the national government requirement of one secondary school per barangay, there would be a shortfall of 3,146 secondary school facilities for CAAM. The areas, lacking elementary school facilities are concentrated in the province of Lanao del Sur. Where elementary school facilities are absent in 1,349 barangays, although in most barangays with lacking elementary schools, an incomplete or primary school is provided. Secondary school facilities are absent in 2,884 barangays

At the municipality level, the following municipalities: Tagoloan II, Tangcal, Mangudadatu, Munai, Sultan Naga Dimaporo (Karomatan), Madalum, Piagapo, Bubong, Bayang, Poona Piagapo, Magsaysay, Lumba-Bayabao (Maging), Ditsaan-Ramain, Talayan, Bacolod-Kalawi (Bacolod Grande), Sultan Dumalondong, Tagoloan and Marogong, need immediate attention as a quarter of their barangays lack elementary schools. To determine the complete list of barangays, refer to Annex Table A6.1-6 Other barangays without elementary schools are supplemented by the presence of primary schools. However, the latter are considered as incomplete schools, thus, these schools need to provide education up to grade Grade 6.

⁷ The variance could be attributed to a break in data reporting from the ARMM in SY 2005/2006

The following municipalities have high priority to provide secondary school facilities: Poona Piagapo, Akbar, Tagoloan II, Datu Unsay. Except for the municipalities of Pantukan, Hadji Mohammad Ajul and Al-Barka, all other municipalities have half of the number of barangays with no secondary school facilities⁸. To identify the barangays without secondary school facilities, refer to Annex Table A6.1-7.

Given the lack of elementary and secondary educational facilities, the list of high priority municipalities in the Education subsector includes the following: Sultan Naga Dimaporo (Karamatan), Poona Piagapo, Munai, Magsaysay, Lumba-Bayabao (Maguing), Kapai, Bubong and Bayang.

(2) Day Care Centers

Aside from the provision of elementary and secondary schools, the Social Survey database collated the number of Daycare centers as well as Madrasah schools and other informal educational facilities. Comparing these figures against the number of barangays, 0.72 daycare centers are provided per barangay. This figure is lower than the government requirement of one daycare per barangay.⁹ Thus overall for 3882 barangays there is still a gap of 1091 Daycare centers. For the list of barangays with lacking daycare facility, refer to Annex Table A6.1-9 However, daycare centers are not provided in 1,818 barangays in CAAM.

(3) Madrasah Education

Alternative education such as the Madrasah¹⁰ is also being strengthened by the national government especially in CAAM. At present, most Madaris are community based with no formal recognition, regulation or standards. Madrasah figures indicate that at the barangay level, 0.47 Madrasa facilities are provided. It is the target that Madrasah facilities, should adhere to national standards of 1 Madrasah facility per barangay. At present, one Madrasah facility serves 2.13 barangays resulting in about 2,164 Madrasa.

Municipalities with lacking Madrasah facilities are concentrated in Lanao del Sur in the municipalities of Bacolod-Kalawi (Bacolod Grande), Bayang, Buadiposo-buntong, Bubong, Butig, Ditsaan-ramain, Ganassi, Kapai, Kapatagan, Lumba-Bayabao (Maguing), Lumbaca-Unayan, Lumbatan, Lumbayanague, Madalum, Madamba, Maguing, Malabang, Marantao, Marawi city, Masiu and Mulondo, Poonabayabao (Gata), Pualas, Saguiaran, Sultan Gumander, Tagoloan II and Tamparan.

⁸ No secondary school data on the following: Pagadian City (Capital), Tabina, City Of Isabela (Capital), Nunungan, Salvador, Taraka, Wao, Calanogas, Bumbaran.

⁹ RA 6972, an Act establishing a Day Care Center in Every Barangay, institutes the need to provide Day Care Centers for every 500 families.

¹⁰ Madrasah is a system of education centered on Arabic literacy, Islamic values and religion and thus, is a critical factor in the preservation of Islamic faith and culture. It can also be instrumental for promoting peace and development in Mindanao because of its wide coverage among Muslim communities encouraging them to get involved in the development process.

1) Classroom to Student Ratio

Where facilities currently exist, there is still a need to evaluate the present status and physical conditions, including the presence of other key physical facilities such as libraries, chairs, tables, blackboards, and toilets for both teachers and students and the provision of other support facilities (i.e. water, electricity, and health clinics), sufficiency of teaching-learning resources, and level of participation and cohort survival ratio. These indicators compromise the quality of education and need to be considered in order to assess the gap in the education subsector.

There should be sufficient number of standard classrooms to accommodate the school enrolment and enough internal spaces for other basic curricular and administrative needs of the school.

The Philippine average classroom to student ratio at the elementary level is 1 classroom catering to 37 students whilst for secondary schools it is 1 classroom for 57 students. The latter is below the standard requirement of 1:40 classroom to student ratio. Thus, to catch up with Mindanao and national levels, there is a need to improve the secondary school classroom ratio to 1:40 (for secondary schools) and to 1:37 (for elementary schools).

Table 3.9-2 indicates the ARMM data on Gaps in elementary classroom provision as well as the need for repairs. A total of 3,700 classrooms are lacking in Maguindanao with a present classroom to student ratio of 1:50, this is followed by Lanao del Sur 1 and 2 registering classroom shortages of 2,696 and 1,717. Except for Basilan, all the CAAM provinces in ARMM are below the national average of providing 1 classroom per 37 students for elementary schools.

Table 3.9-2 Need for New Elementary School Classrooms and Repairs in ARMM Provinces

DIVISION	TOTAL CLASSROOMS NEEDED	APPARENT ROOM SHORTAGES	PERCENT APPARENT ROOM SHORTAGES	MINOR REPAIRS TO DO	MAJOR REPAIRS TO DO	NEW ROOMS TO BE BUILT	EXPECTED RATIO: STUDENTS PER CLASSROOM
Basilan	1,372	226	16 %	432	246	226	35
Lanao Sur 1	2,696	546	20 %	836	538	546	42
Lanao Sur 2	1,717	394	23 %	570	410	394	41
Maguindanao	3,700	865	23 %	615	687	865	50
Marawi City	990	224	23 %	159	44	224	44
TOTAL	14,349	3,326	23 %	3,527	3,125	3,326	42

Source: ARMM Regional Basic Education Database (SY 2005-06)

Table 3.9-3 shows lack of classroom at the secondary level with Lanao del Sur and Maguindanao with the highest needs for classrooms.

Table 3.9-3 Need for New Secondary School Classrooms and Repairs in ARMM Provinces

DIVISION	TOTAL CLASSROOM NEEDED	APPARENT ROOM SHORTAGES	% APPARENT ROOM SHORTAGE	ROOMS IN GOOD CONDI- TION	MINOR REPAIR TO DO	MAJOR REPAIR TO DO	NEW ROOMS TO BE BUILT	EXPECTED RATIO STUD PER CLASS ROOM
Basilan	200	32	16	86	53	29	32	41
Lanao Sur 1	660	276	42	132	98	154	276	40
Lanao Sur 2	648	442	68	103	53	50	442	32
Maguindanao	504	168	33	143	96	97	168	43
Marawi City	231	131	57	87	9	4	131	40
TOTAL	2,804	1,269	45	657	457	421	1,269	40

Source: ARMM Regional Basic Education Database (SY 2005-06)

2) Teacher to Student Ratio

Figure 3.11-5 illustrates secondary data on the teacher-student ratio. As of SY 2005/2006, the national average teacher-student ratio was 1:36 for elementary schools and 1:37 for secondary schools. In the CAAM provinces, Zamboanga del Sur (1:31) and Del Norte (1: 36), Lanao del Norte (1:32) and Sultan Kudarat (1:34) have elementary students to teacher ratio at par or above the national level. Student to teacher ratios in Compostela Valley (1:38), Davao Oriental (1:38), Lanao del Sur (1:38), South Cotabato (1:39), Sarangani (1:41) and Basilan (1:40) were within the planning standard, but above the Philippine mean. In Sarangani and Basilan the education resource to student ratio failed to comply with the service requirement. This meant that teachers supervised an average of 52 elementary students in each class. Sarangani (71) and Basilan (78) received lowest ranking for teacher-student ratio among the CAAM provinces.

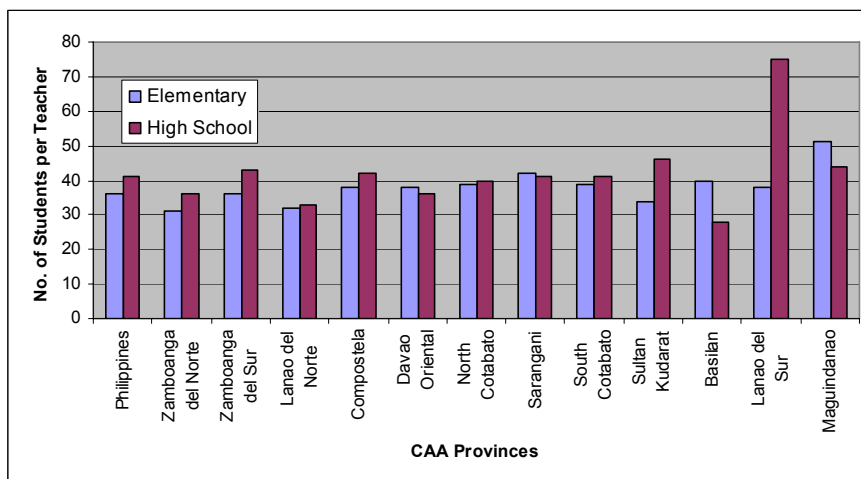


Figure 3.9-5 Teacher-Student Ratio in the provinces with CAAM, CY 2005-2006

The 2007-08 BEIS recorded 45.3 elementary school pupils per national teacher in ARMM (619,471 pupils and 13,675 national teachers) compared with 35.2 pupils per teacher (12.096

million pupils and 343,646 national teachers) in other regions. In Mindanao (without ARMM), there were 37 pupils per national teacher (2.66 million pupils and 72,548 national teachers).

For secondary schools, the provinces of Zamboanga del Norte, Lanao del Norte, Davao Oriental, North Cotabato, Sarangani, South Cotabato Zamboanga del Sur, Compostela Valley, and Maguindanao were at the same standing or better in terms of student to teacher supervision when compared with the prevailing 1:41 national level ratio. Whereas Sultan Kudarat, and Basilan failed to meet the service requirement standards and was outside the Philippine mean. The most noticeable service requirement gap was in Lanao del Sur, wherein 1 teacher supervised 75 high school students. Among the CAAM provinces, the lowest ranked are Lanao del Sur (79), Sultan Kudarat (72) and Maguindanao (70) while the best performers are Basilan (4), Lanao del Norte (14), Zamboanga del Norte (26), and Davao Oriental (27).

3) Net Participation and Cohort Survival Rate

The BDA Strategic Plan indicates that participation in school has reduced because schools have stopped or reduced activities due to the ongoing conflict, wherein a number of the buildings were destroyed or badly damaged while others served as evacuation centers which prevented the resumption of classes. The high cost of education, lack of support from parents, lack of interest, distance of schools, low quality of schools and demands of community life particularly related to economic survival, have all been identified as contributing to the decline.

There is an inconsistency between ARMM's fastest growing population and its declining enrolment rate. ARMM data shows that participation rates in both elementary and secondary schools (78.12% and 41.91% respectively) are lower when compared to Mindanao's overall participation rate of 94.12% for elementary schools and 54.15% for secondary schools. Declining elementary enrolment is observed in Maguindanao, Lanao del Sur I and Lanao del Sur II, while lower secondary enrolment rate is observed in Basilan and Lanao del Sur II.

Table 3.9-4 Net Participation and Cohort Survival Rate, SY 2005 to 2006

AREA	NET PARTICIPATION RATE		COHORT SURVIVAL RATE	
	ELEMENTARY	SECONDARY	ELEMENTARY	SECONDARY
Philippines	73.51	44.5	62.58	54.99
Mindanao ^a	88.00	49.00	54.00	b
Zamboanga del Norte	100.00	100.00	61.07	61.07
Zamboanga del Sur	93.00	93.00	54.07	54.07
Zamboanga Sibugay	93.45	93.45	59.29	56.94
Isabela City	100.00	100.00	57.81	57.81
Lanao Del Norte	91.94	55.09	no data	no data
Compostela Valley	92.80	64.20	58.80	52.00
Davao Oriental	100.00	56.70	52.10	42.60
North Cotabato	77.52	40.59	39.60	37.90
Sarangani	68.13	30.51	47.90	40.34
South Cotabato	70.91	38.05	48.85	36.60
Sultan Kudarat	67.01	32.42	44.60	41.72
Basilan	76.00	17.94	49.97	30.91
Lanao del Sur I	141.60	65.27	22.04	57.26
Lanao del Sur II	88.74	48.75	20.88	16.26
Maguindanao	70.17	16.24	27.09	33.16

^a lacks data on CARAGA; b cannot be computed because many data are lacking; c Actual Data from DepEd- Mindanao regions; Source of Actual Data: DepEd-Mindanao Regions

As shown in Table 3.9-4, the provinces of Zamboanga del Norte, Zamboanga Sibugay and Zamboanga del Sur averaged nearly 60% of cohort survival rate at elementary school.

4) Summary and Conclusion

Access to education is very important and has been identified as a critical intervention for poverty reduction and peace initiatives. Education transmits cultural values and provides productive economic opportunities for CAAM people, in particular IPs and Muslims within and outside the Region.

Although, service requirements in most of the CAAM provinces are well within the standard for elementary and high school requirements, the increase in the population of the school going age group in years to come may result in a lower performance standing. Moreover, the situation of a declining provision of public elementary and secondary school facilities indicates that instead of minimizing, the gap between the provisions of facility against the population served is increasing. The gap will increase unless resources, both manpower and money, are redirected to meet the potential service gaps, and address the sub-par conditions in Sarangani and Basilan (elementary); and Sultan Kudarat and Lanao del Sur (secondary school).

3.9.4.2 Health Subsector

Access to an adequate health service may be determined by health facility provision as well as other performance indicators such as the ratio of medical personnel and health workers to population and common illnesses and diseases proportion to population.

Gap in the Provision of Health Facilities

The government mandates that one Barangay health center (BHCs) shall be provided per barangay. Within CAAM, BHC provision is low with only 0.44 BHCs per barangay. All barangays in the municipalities of Munai, Bayang, Pagayawan (Tatarikan), Pualas, Lumbayanague, Tagoloan II do not have health centers. 75% of the barangays in 46 municipalities do not have BHCs while 80 municipalities have half of their barangays without provision for BHCs.

With respect to RHUs, the DOH mandates that one RHU should be provided per municipality regardless of population size. The CAAM value at 1.02 indicates the adequacy of facility. However, upon validating the municipalities with RHUs, it was determined that about 50 out of 148 municipalities lack RHUs.

It is highly recommended to conduct a more thorough analysis of the condition of existing facilities as well as support systems. As an example, hospitals should be analyzed against the provision of beds or its bed capacity to determine if the catchment population is well served by the existing facilities.

Based on DOH standards, a primary hospital provides 10 beds while a secondary (provincial or district) hospital provides between 25 and 50 beds. Based on the mapping of hospitals across CAAM provinces, all are being served by at least one hospital¹¹.

Table 3.9-5 Hospital Bed Capacity to Population Ratio, 2006

	MINDANAO/PROVINCE/CITY	POPULATION	NUMBER OF HOSPITALS	BED CAPACITY	BED CAPACITY/ POPULATION
	Mindanao	21,582,540	426	15,301	1,411
	Provinces with CAAM	9,635,040	153	3,755	2,566
1	Zamboanga del Norte	725,175	9	225	3,223
2	Zamboanga del Sur	724,185	13	285	2,541
3	Zamboanga Sibugay	556,805	15	193	2,885
4	Lanao del Norte	777,920	17	935	832
5	Compostela Valley	653,796	10	198	3,302
6	Davao Oriental	493,620	7	228	2,165
7	North Cotabato	993,535	28	545	1,823
8	South Cotabato	645,250	16	445	1,450
9	Sarangani	475,684	6	76	6,259
10	Sultan Kudarat	590,900	18	380	1,555
11	Marawi City	177,391	1	10	17,739
12	Basilan	408,520	2	25	16,341
13	Lanao del Sur	1,138,544	6	105	10,843
14	Maguindanao	1,273,715	5	105	12,131
15	Isabela City	78,705	4	135	583

Source: * 2007 Regional Social and Economic Trends (RSET), Northern Mindanao, Zamboanga Peninsula, SOCCSKSARGEN Region, Davao Region, Regional Physical Framework Plan, Region XI, 2003-2030; Reports of Chief of Hospitals in ARMM; http://en.wikipedia.org/wiki/Juan_S._Alano_Memorial_Hospital,_Inc.

** ARMM data only on government hospitals

¹¹ Provinces and cities without Data need further verification (Isabela City, Compostela valley, South Cotabato).

The Mindanao average is 1 hospital bed for every 1,411 members of the population. The CAAM average is 1 hospital bed for every 2,566 population. Thus to meet the Mindanao average the provinces of CAAM need to provide 1.8 times the present bed capacity or an equivalent of 3,080 hospital beds by 2011.

Table 3.9-5 provides 2006 figures on hospital bed capacity to population ratio of Mindanao, and Provinces within CAAM. Marawi City and Basilan, have the lowest bed to population ratio with Marawi City requiring an additional 116 beds to meet the Mindanao average whilst Lanao del Sur needed about 800 beds to meet the Mindanao level.

The number of health personnel in attendance at a health facility is an important performance indicator of the health subsector and further consideration helps determine present needs and potential gaps within the subsector. DOH standard stipulates the following minimum requirements: (1) 1 government physician per 20000 population; (2) 1 public health nurse per 20,000 population; (3) 1 rural health nurse per 20,000 population; (4) 1 government dentist per 50,000 population; (5) 1 rural Sanitary inspector per 20,000 population; (6) 1 barangay health worker per 20 households; and (7) 1 Barangay nutrition scholar per barangay.

Table 3.9-6 Ratio of Health Personnel to Catchment Population

PROVINCE/CITY	PHYSICIAN		NURSE		MIDWIFE		DENTIST	
	GAPS	RATIO	GAPS	RATIO	GAPS	RATIO	GAPS	RATIO
Isabela City	-1	29,328	2	14,664	1	4,631	-1	87,985
Zamboanga del Norte	-23	41,238	-13	28,351	14	4,653	-7	82,476
Zamboanga del Sur	-25	43,537	3	18,659	-24	5,750	-7	83,116
Zamboanga Sibugay	16	34,137	-3	22,758	-109	none	-2	60,687
Lanao del Norte	14	13,129	45	7,476	69	3,041	-3	67,285
Davao Oriental	-12	39,676	-5	25,059	79	2,752	2	43,283
Compostela Valley	0	53,306	0	31,983	140	4,100	0	53,306
North Cotabato	-34	62,773	-14	27,899	9	4,783	-10	100,436
South Cotabato	40	8,699	58	6,940	84	2,969	4	38,602
Sultan Kudarat	12	14,121	35	9,125	47	3,573	1	45,623
Sarangani	-5	25,027	11	13,586	115	2,264	0	47,551
Basilan	-18	204,260	-16	102,130	-80	204,260	-7	408,520
Lanao del Sur	-41	71,159	-32	45,542	-210	63,252	-19	284,636
Maguindanao	-32	177,707	-31	142,166	-138	177,707	-13	710,829

*Region XI computation of existing number of health personnel was computed based on 2004 Department of Health - Center for Health Development Annual Health Report

*Region XII computation of existing number of health personnel was computed based on 2003 distribution of government Health Manpower complement by province/City, Region XII

* Data for Koronadal City and Tacurong City are integrated with South Cotabato & Sultan Kudarat, respectively.

Source: 2007 Regional Social and Economic Trends (RSET), Northern Mindanao, Zamboanga Peninsula; 2008 Regional Social and Economic Trends (RSET), Davao Region; Regional Physical Framework Plan, Region XI, 2003-2030; 2Regional Physical Framework Plan, Region XII, 2004-2030;

3Reports of Chief of Hospitals in ARMM

Table 3.9-6 provides information on the provision of Health Personnel at the provincial level. It shows a lack of government physicians based on the standard requirement per catchment population in the following provinces: Lanao del Sur (41), North Cotabato (34), Maguindanao

(32), Zamboanga del Norte (23), Zamboanga del Sur (25), Basilan (18), Davao Oriental (12), Sarangani (5), and Isabela City (1).

There is also a deficiency of nurses. At present, there is a gap in the number of nurses serving the following provinces: Lanao del Sur (32), and Maguindanao (31), Basilan (16), Zamboanga del Norte (13), North Cotabato (14), Zamboanga Sibugay (3), and Davao Oriental (5).

The required number of midwives in the following provinces is lower by: Lanao del Sur (210), Maguindanao (138), Zamboanga Sibugay (109), Basilan (80) and Zamboanga del Sur (24).

The Dental service gap is due to the absence of Dentists in the following provinces and city: Lanao del Sur (19), North Cotabato (10), Maguindanao (-13), Basilan (-7), Zamboanga del Norte (7), Zamboanga del Sur (7), Lanao del Norte (3), Zamboanga Sibugay (2), and Isabela City (1).

3.9.4.3 Access to Potable Water Supply System

Access to safe potable water is broadly defined as the access to any potable water regardless of whether it is from piped systems or lower level systems. At the national level, the target of the water subsector is to provide regular access to Level III water supply to all households, industries and other consumers. Access to safe water is necessary to ensure improved health conditions, which is a key component in increasing household productivity as well as target poverty reduction, and economic growth.

The following legislative agenda serves as target in the provision of safe water at the national level within a given time frame:

- By 2010, Medium Term Philippine Development Plan (MTPDP) targets 92% of Philippine population served
- By 2015, Millennium Development Goal (MDG) targets 87% of Philippine population served

Specific strategies identified in the MTPDP (2004-2010) include:

- Potable Water for the entire country by 2010 with priority given for 432 waterless municipalities outside Metro Manila:
- Ensure that all barangays and municipalities provided with water supply resources also have the corresponding sanitation facilities for proper disposal of wastewater and sewerage
- Continue to provide adequate capacity building programs and technical assistance on

water supply and sanitation

Develop technology options for water supply (solar desalination, windmill technology etc.)

The sample CAAM municipalities covered under the 2005 Rural Development Report reported that only an average of 47 % had access to potable water. In terms of the number of barangays, only 101 or 36.73 % of the total component barangays had existing potable water supply systems. Based on the figures posted in the Social Survey Report, there remains a huge gap of providing potable water supply systems to the barangays in CAAM. Except for Sarangani (69%) and Compostela Valley (50%), all other provinces are below 50% connection. Most of the areas are being served by Level I water sources as well as other sources. This indicates that cleanliness and portability are compromised which may be attributed to its source. In addition the provision of water supply systems should go hand in hand with sanitation at the barangay level.

It is important to consider a number of pipeline projects for Mindanao to enhance projects such as the Rural Water Supply Development for Mindanao Provinces which consist of 236 deep wells, 119 shallow wells for Level 1 systems and 264 spring development for Level 2 water systems. CAAM provinces covered by the project include: Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay, Lanao del Norte, South Cotabato, Sarangani, Lanao del Sur and Maguindanao.

3.9.4.4 Access to Electricity

The Philippine Energy Plan (PEP) seeks to provide wider access to reliable supply of energy (100% barangay electrification by 2006 and 90 % of households by 2017) and to tap new and renewable energy (NRE) resource with a 100% capacity by 2013. NRE development projects will promote greater utilization of wind, solar, ocean, mini-hydro and biomass energy sources. The provision of electricity from NRE is promoted in remote and enviable areas due to lack of access and cost-effectiveness.

The PEP aims for 90% of households to be energized by 2017. Basing targets on this assumption, all the provinces need immediate attention and focus to tap potential NREs or at least electrification up to the level of the barangay. National Electrification Administration (NEA) provides extensive information on the level of electrification (refer to Table 3.9-7). However, the information includes provinces with both CAAM and Non-CAAM municipalities within Mindanao which are presently served by electric cooperatives, the data can provide an overall status of electrified versus non-electrified areas within CAAM.

Table 3.9-7 List of Electric Cooperatives and Service Area at the Barangay and Sitio Levels

ELECTRIC COOPERATIVE	BARANGAYS				SITIOS			
	POTENTIAL	ELECTRIFIED	%	NON-ELECTRIFIED	POTENTIAL	ENERGIZED	%	UN-ENERGIZED
PHILIPPINES	36,030	35,158	98	872	96,626	66,902	69	29,724
Mindanao	9,560	9,069	95	491	35,031	21,221	61	13,810
Provinces with CAAM	5,410	5,304	93	376	17,572	9,480	54	8,092
Zamboanga Del Norte	585	574	98	11	2,164	1,327	61	837
Zamboanga Del Sur I	628	624	99	4	2,283	1,509	66	774
Zamboanga Del Sur II	558	526	94	32	2,840	1,772	62	1,068
Lanao Del Norte	407	334	82	73	562	238	42	324
Davao Oriental	183	183	100	0	1,382	895	65	487
North Cotabato	348	342	98	6	2,442	589	24	1,853
South Cotabato I	172	172	100	0	1,417	797	56	620
South Cotabato II	204	196	96	8	2,281	1,390	61	891
Sultan Kudarat	307	287	93	20	69	43	62	26
Basilan Electric	269	266	99	3	49	0	0	49
Lanao Del Sur	1,173	1,031	88	142	0	0	0	0
Maguindanao	576	499	87	77	2,083	920	44	1,163

Source: NEA Website (http://www.nea.gov.ph/resource/pdf/energstatus_1208.pdf)

Table 3.9-7 shows that up to the barangay level both South Cotabato (served by electric cooperative I) and Davao Oriental are 100% energized. The discrepancy between the figures posted by NEA and the Social Survey Report may be attributed to the level of electrification wherein NEA is based on barangay electrification which includes all the municipalities, barangays and sitios within the province while the latter is based only on the aggregate population of CAAM areas within the province. However, this still provides an overall picture of the level of electrification needs within the particular province. Thus, examining the sitio level, only 65% in Davao Oriental are energized while in South Cotabato I and II, the figures are 56% and 61% respectively. This implies that while there is already electrification within the barangays of South Cotabato (served by Cooperative I) and Davao Oriental, not all of the households within the barangays are energized. Sitios in Basilan and Lanao del Norte has no access to electricity as of 2008 figures.

The electrification gap at the barangay level is provided by the difference between the barangays that need to be energized against the barangays that are energized to date. Electrification rate at the national level is at 98% with Mindanao at 95%. The average electrification rate for the provinces within CAAM is 93%. Assuming that the latter electrification rate can be applied for CAAM, the total number of barangays with access to electricity is calculated as 3,577 out of 3,847 registered as CAAM barangays. By 2011, there is a need to provide electrification to 78 barangays and energize another 115 more barangays by 2017 in order to match the Mindanao and Philippines levels.

Table 3.9-8 Electric Cooperatives and Household Connection served, 2008

	ELECTRIC COOPERATIVE	CONNECTIONS			
		POTENTIAL	SERVED		PERCENT
			THIS MONTH	TODATE	
	Philippines	11,582,000	44,738	8,113,587	70
	Mindanao	3,480,700	9,971	1,978,088	57
	Provinces with CAAM	1,681,200	3,674	845,592	50
1	Zamboanga Del Norte Electric Cooperative, Inc.	156,000	412	75,257	43
2	Zamboanga Del Sur I Electric Cooperative, Inc.	173,900	399	80,947	47
3	Zamboanga Del Sur II Electric Cooperative, Inc.	152,600	272	79,940	52
4	Lanao Del Norte Electric Cooperative, Inc.	89,400	148	65,325	73
5	Davao Oriental Electric Cooperative, Inc.	9,600	281	71,229	74
6	North Cotabato Electric Cooperative, Inc.	141,400	452	93,775	66
7	South Cotabato I Electric Cooperative, Inc.	143,700	672	76,267	53
8	South Cotabato II Electric Cooperative, Inc.	241,600	252	118,801	49
9	Sultan Kudarat Electric Cooperative, Inc.	145,600	641	54,893	38
10	Basilan Electric Cooperative, inc.	74,600	109	29,673	40
11	Lanao Del Sur Electric Cooperative, Inc.	145,300	0	56,357	39
12	Maguindanao Electric Cooperative, Inc.	217,100	36	43,128	20

Source: NEA Website (http://www.nea.gov.ph/resource/pdf/energstatus_1208.pdf)

At the household level, there is still potential for providing electricity among the provinces of CAAM. To date, only Lanao del Norte has 73% of households connected to electricity while figures in Maguindanao are much lower with only 20% of households connected. The factors contributing to such low access to power in CAAM are: remoteness from existing major transmission lines, user's charges collection problems among existing connections and lack of financial capacity among potential users.

The Philippine electrification rate at the household level is 70%, the Mindanao average is 57% whilst the average for CAAM provinces is 50%. To determine the electrification GAP in CAAM households and applying the 50% CAAM average to the number of households in CAAM (1,188,197), then 594,098 households are presently energized within CAAM. By 2011, to achieve the 57% Mindanao average, there is a need to provide electricity to 83,174 households and by 2017, 154,466 household connections are needed to meet the Philippine average. (see Table 3.9-8)

CHAPTER 4

RECONSTRUCTION AND DEVELOPMENT OF CONFLICT AFFECTED AREAS IN MINDANAO

4.1 SOCIO-ECONOMIC DEVELOPMENT FRAMEWORK FOR CAAM RECONSTRUCTION AND DEVELOPMENT

The 15-Year Socio-Economic Development Plan (SEDP) for CAAM covering the period from 2009-2023 serves as a unified framework for the reconstruction and socio-economic development of CAAM towards the consolidation of peace in Mindanao.

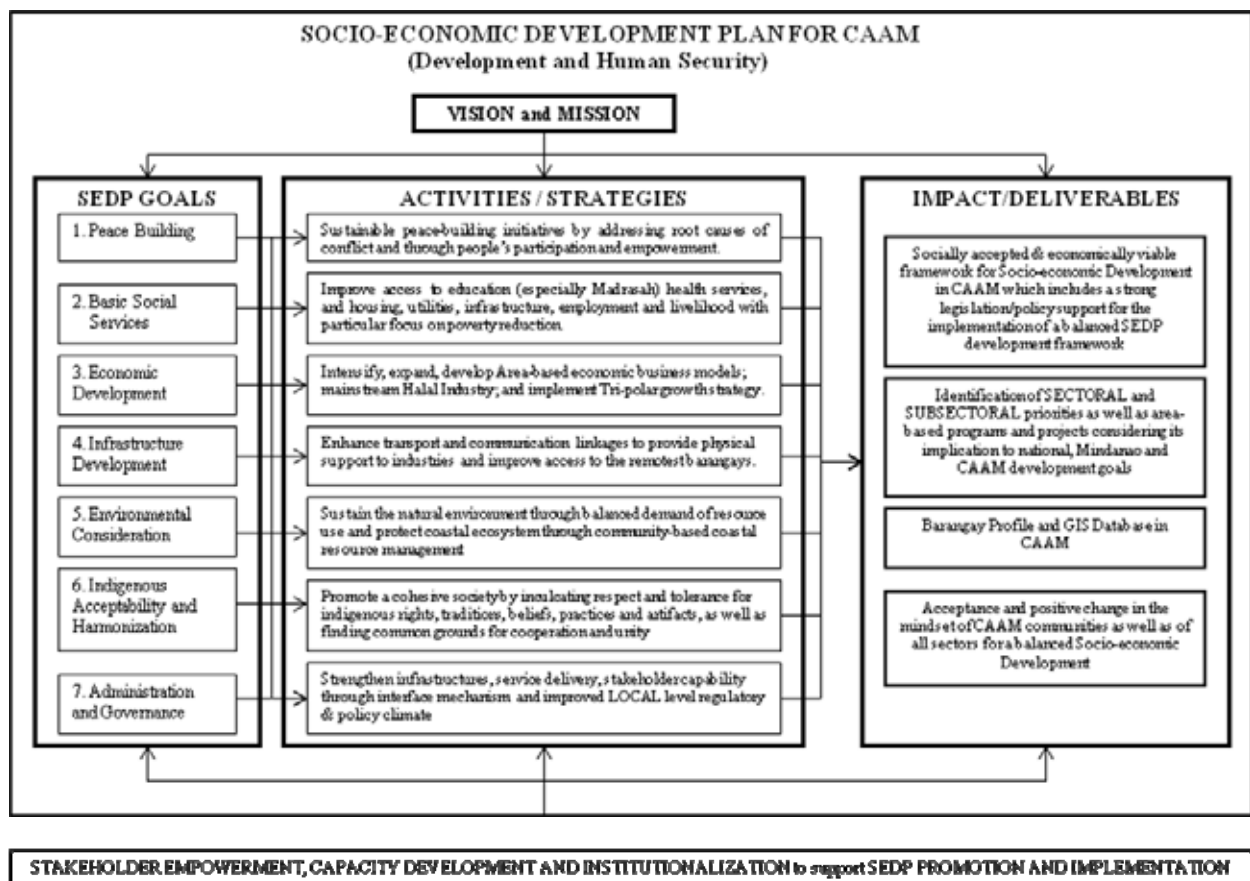


Figure 4.1-1 SEDP Development Framework

4.1.1 Guiding Principles

The socio-economic development plan framework envisioned by the Study adheres to the following guiding principles and concepts.

(1) Sustainable development

SEDP is envisioned to be an integrated, well coordinated and sustainable plan to be pursued in the CAAM and eventually will have a ‘spill-over effect’ to the non-CAAM to fully attain a consolidation of peace in the entire island of Mindanao, the Philippines and the global environment.

These efforts will be implemented in close coordination, partnership and collaboration between and among government agencies, private and industrial sectors, communities as primary stakeholders, and the various international development cooperating agencies.

(2) People Driven Approach

The SEDP will be people-driven and inspired with the philosophy that “Development is not about the delivery of goods to a passive citizenry. It is about active involvement and growing empowerment”. In taking this approach many forums will be built aiming for peace and reconciliation involving all peoples throughout the land.

(3) Participatory Development

Through The SEDP, beneficiaries and partners in development will play critical roles in ending the endemic violence within CAAM and its neighboring communities, by embarking on a national drive for peace and security. The target of the SEDP is to promote and encourage investment that will provide the initiative towards economic expansion and greater development in the region.

The commitment of all parties to the SEDP will encourage and further the project of nation-building starting at the heart of where development is most needed in the CAAM.

(4) Convergence of Strategies towards CAAM Reconstruction and Development

The SERD-CAAM Study will link growth, development, reconstruction, redistribution and reconciliation into a 'unified program', bound by a broad systemic reform that would focus on creating and enhancing existing services in the social, economic, infrastructure, environment, local governance, and cultural sectors.

(5) Transparency in Local Governance

The success of the first four principles would in turn facilitate the fifth which is the democratization of the process of consolidating peace in Mindanao. The SEDP considers the 'minority control and privilege' within the economy as a major obstacle to the achievement of an integrated developmentally orientated economy. It also acknowledged that the people most affected by economic policy should participate in the decision-making, and that the government will also have to be sensitive to structural reforms to fit the priorities of the SEDP

generally conceived for the CAAM.

4.1.2 SEDP Vision and Mission Statement

SEDP's Vision and Mission are based on the concept of development and human security. SEDP identifies seven achievable goals, as illustrated in Figure 4.3-1. The corresponding strategies and targets formulated are based on continuous consultative activities and the active involvement of various stakeholders such as the government, civil society and most especially the members of the CAAM community in the needs assessment, planning and implementation of its components.

(1) Vision

"We envision a progressive and sustainably developed CAAM, the homeland of a culturally and religiously diverse people. A home to peace loving, healthy, self-reliant, empowered and dignified citizenry who live in a harmonious, safe and ecologically-balanced environment and a self-sustaining, diversified and progressive economy that provides human wellbeing and equitable access to opportunities under a competent, responsible and resolute peoples' leadership."

(2) Mission

"With the aim of achieving peace and enhancing social development, the people of CAAM shall promote a culture of peace and security, ensure social justice and human equity, improve delivery of social services, attain economic growth, encourage the viability of sustainable development, promote socio-cultural integrity and adopt participative, transparent and accountable governance."

4.1.3 SEDP Seven-Point Goals

SEDP's Vision and Mission are based on the concept of development and human security.

SEDP identifies seven achievable goals, as stated in Figure 4.5-1. The corresponding strategies and targets formulated are based on the continuous consultative activities and active involvement of various stakeholders such as the government, civil society and most especially the members of the CAAM community in the needs assessment, planning and implementation of its components.

(1) Goal 1: Peace Building

To attain a genuine culture of peace and security by implementing sustainable peace initiatives through the people's participation and empowerment.

(2) Goal 2: Social Welfare Improvement

To bring the CAAM up to the country's average for social development indicators by 2023, by improving access to education, health services, utilities, infrastructure, employment and livelihood with particular focus on poverty reduction.

(3) Goal 3: Economic Development

To intensify economic development by creating an investment friendly environment that is conducive to supporting sustainable agriculture and industrial productivity and ensures food security.

(4) Goal 4: Infrastructure Development

To advance the infrastructure development by constructing and rehabilitating transportation networks and communication facilities that will support the industries and increase electricity and water supply distribution to the remotest barangays.

(5) Goal 5: Environmental Consideration

To maintain environmental stability, by balancing the demands of production against the protection of the ecosystem, to prevent any untoward destruction of the environment and occurrence of disasters.

(6) Goal 6: Indigenous Acceptability and Harmonization

To promote a cohesive society by teaching respect and tolerance for indigenous rights, traditions, beliefs, practices and artifacts, and finding common ground for cooperation and unity.

(7) Goal 7: Development Administration and Governance

To improve the local bureaucracy, in planning and implementation, in strengthening the fiscal management, by enhancing the capacity of public servants and fostering community participation and public private cooperation.

4.1.4 Development Partners in Implementation of SEDP

(1) The Role of Development Partners

Development partners in the implementation of SEDP must have a defined role of the participants involved that will facilitate clarification of the institutional arrangements. This is to ensure synergy, accountability, and avoid confusion between, and among, institutions working for the peace and development of Mindanao.

Guiding principles such as cooperation, consultation, and ownership will facilitate the

institutionalization of supportive integration frameworks, participatory planning, resource inputs, and sound monitoring and evaluation schemes.

Development partners should see the SEDP implementation as an integrated development approach that seeks co-operation among partners for the institutionalization of SEDP in local government structures, in private sectors, and international organizations.

Table 4.1-1 Development Partners in the Implementation of SEDP

AGENCY/DONOR INSTITUTIONS	ROLES	INDICATOR FUNCTION
National Government		<p>INITIATOR AND FACILITATOR in the peace process</p> <p>Provide a platform to initiate dialogue among conflicting parties and the implementation of peaceful solutions while observing the continuity of peace efforts</p> <p>Initiate dialogue, coordinate all units (local, regional and national) and conduct a series of consultations with the people to determine the collective efforts required to address the conflict and ensure peaceful implementation</p> <p>Conceptualize an amnesty program for individuals who are willing to observe the law and also a viable amnesty and reintegration program for former combatants or cadres.</p> <p>ENABLER in socio-economic development. To provide;</p> <p>adequate livelihood programs;</p> <p>income generating opportunities; basic social services, especially in health care, as a way of promoting peace.</p> <p>Provide; needed assistance (economic, livelihood, social services, etc.);</p> <p>disaster management plans, to be implemented fairly;</p> <p>livelihood, education, employment opportunities;</p> <p>special programs for former combatants and their families;</p> <p>rehabilitate houses and other infrastructure that was destroyed in the conflict;</p> <p>address poverty and ancestral domain issues, and promote confidence building between conflicting parties</p>
i. Bangsamoro Development Agency (BDA)	As the primary stakeholder, BDA may serve as the project manager of SEDP projects.	It will supervise, initiate, and coordinate all activities related to project implementation A unit within the BDA structure may be constituted to act as a project management office.

AGENCY/DONOR INSTITUTIONS	ROLES	INDICATOR FUNCTION
ii. Technical Working Group	Policy adviser	Sustain the network and partnership already established among the CAAM LGUs, government agencies, and donor institutions
iii. Office of the Presidential Adviser on the Peace Process (OPAPP)	OPAPP is responsible for the coordination of the Government of the Republic of the Philippines' (GRP) peace agenda, including the successful peace negotiation with the MILF.	Co-Chair of the Project Steering Committee (PSC) with BDA OPAPP provides the security-related information as well as measures to ensure the safety of the JICA Study Team.
iv. International Organizations (IOs)	The anticipated task of international donor organizations such as the World Bank, AUSAID, ADB, USAID, JICA, EU and UN shall be the provision of financial, socio-economic and technical assistance	<p>INITIATE MONITORING of ceasefire agreement between the MILF and the GRP</p> <p>FINANCIAL, SOCIAL, ECONOMIC, TECHNICAL ASSISTANCE:</p> <p>Funding support for;</p> <p>social infrastructure projects and livelihood projects (post harvest facilities, farmers and fishermen);</p> <p>micro-finance/micro-enterprise development and information technology development;</p> <p>grants for peace building measures; poverty alleviation projects and security;</p> <p>support capability building programs (NGO strengthening, training for farmers on food processing, inclusion of IDPs in capability building projects, scholarships, trainings, governance and community policing);</p> <p>technical assistance for natural resource management projects;</p> <p>marketing tie-ups or linkages;</p> <p>flood control and drainage facilities; sustainable human and ecological security;</p> <p>water facilities.</p> <p>To PARTNER WITH credible PO's and implement programs and projects directly to stakeholders in delivering developmental projects without compromising the sovereignty of the state.</p> <p>COMPLEMENT NATIONAL GOVERNMENT EFFORTS in information dissemination on the peace situation, participatory community planning and extending relief and rehabilitation assistance, livelihood and peace advocacy, among others.</p>

AGENCY/DONOR INSTITUTIONS	ROLES	INDICATOR FUNCTION
<p>v. Civil Society, Community Organizations, NGOs, and POs</p>		<p>ASSIST the government in all aspects and capacities, assist in conflict transformation, finding solutions to peace, be involved in peace talks or in initiating dialogue to attain peace assist the government in social and economic rehabilitation programs to provide livelihood to the community</p> <p>ADVOCACY information dissemination about the peace process and campaign to stop military offensives, especially in Muslim dominated areas appeal to government to recognize Bangsamoro people’s right to self-determination cooperate with the government to help solve the conflict actively participate and promote advocacy for peace</p> <p>SERVE AS AN ARBITER and/or MEDIATOR act as monitoring body and engage in peace and development issues and collaborate with government on these issues mediate in rido and other family or clan conflicts while not siding with either parties involved in the conflict act as the bridge between the government and the MILF to settle differences in order to attain peace</p> <p>FRONTLINER IN PROJECT IMPLEMENTATION at the grassroots level help IDPs in rehabilitation programs strengthen indigenous institutions and mechanisms for conflict prevention and resolution participate in government programs toward peace and unity provide livelihood and strengthen community institutions assist the community in providing basic health services provide training, seminars on the culture of peace and facilitate inter-faith dialogues, provide projects and conduct livelihood training as well as concrete assistance like school buildings and medical supplies conduct proper forums to resolve the root causes of the conflict facilitating the plans and programs of the government</p>

AGENCY/DONOR INSTITUTIONS	ROLES	INDICATOR FUNCTION
		<p>EDUCATION/CAPABILITY BUILDING help in educating people about the roots of the conflict, and to promote peaceful co-existence promote indigenous people’s rights</p> <p>ADVOCACY FOR PEACE strengthen local people’s organizations disseminate information so that the community can choose good leaders capability building on moral recovery and spiritual values participate in peace building activities like conflict transformation and resolution and help in fostering dialogue among the conflicting parties conduct meetings and consultations with a multi-sectoral organization composing different leaders and respected Muslim elders united to resolve judicial issues and others</p>
<p>vi. Mindanao Working Group (MWG)</p> <p>Co-chaired by the Presidential Adviser (PA) for Mindanao or MEDCo Chairman, and World Bank Country Director.</p> <p>Its members include: GRP DOF, DBM, NEDA, DSWD, ODAAO, OPAPP, NCIP, CHR, Regional Development Councils in Mindanao, REDPB-ARMM; Donor’s Group All interested bilateral and multilateral Core Group members; and Secretariat Support: MEDCo and World Bank.</p>	<p>To facilitate sustained assistance to the peace and development efforts in Mindanao</p>	<p>A mechanism and sub-group under the Philippine Development Forum (PDF) that aims to facilitate coordination of all foreign-assisted projects (FAPs) in Mindanao a forum that facilitates information exchange between GOP and Donors’ Group, not an implementing body and not designed to overlap or have power over any development bodies.</p> <p>Its objective is to provide a forum between GRP and Donors’ Group so as to discuss coordination and areas for collaboration in foreign-assisted development efforts in Mindanao and to share information on security and ODA-related concerns.</p>
<p>vii. Philippine Development Forum (PDF)</p>		<p>Provides a venue for substantive policy dialogue between the Government of the Philippines, donors and other stakeholders. It also provides a platform to monitor progress and priorities.</p>

4.2 MACRO-ECONOMIC DEVELOPMENT DIRECTIONS FOR CAAM

4.2.1 SEDP Directions for CAAM

The 15-year Socio-economic Development Plan (SEDP) for CAAM for the period 2009-2023 serves as a consolidated framework for the reconstruction and socio-economic development in the conflict-affected areas of Mindanao and the consolidation of peace.

The general directions set forth in the SEDP reflect the development priorities, envisioned by the communities in the CAAs, and is in accord with the national mandates, which are:

To address the development challenges based on the assessed priority needs by Sector and subsector in CAAM, whilst ensuring a community-driven, sustainable, socio-economic development, giving due respect and consideration to the people's way-of-life. Also providing a balance between material and spiritual aspects of life and working towards achieving an enlightened, progressive, self-sustained and healthy CAAM community.

To ensure the creation of a dynamic economy at the CAAM barangay level, to bring them to the average level of Mindanao and to the Philippines national level with three implementation phases: Immediate Term, Short Term, and Medium Term plans whilst acknowledging the vital role of achieving peace, stability, and cooperation for development in actualizing the vision for CAAM.

To identify projects and strategic interventions in consideration with the identified priority needs of the CAAM, based on the results of the need assessments done through social surveys, KII, Workshops, review of data from government agencies at the national, regional, provincial and LGUs level, by sector and subsector.

Furthermore, the SEDP does not only limit itself to the achievement of tasks and targets within its time frame, and study area, but also strives to create a significant and stable development pace for the CAAM. The SEDP will help the region move out of the low income group level; create more jobs with higher productivity and quality; and optimize the balanced utilization of its natural resources. Through SEDP any interventions will be directed towards the implementation of a framework that will serve as basis for further assistance from Japan, GRP, BDA and other Donor Agencies.

4.2.1.1 GRDP Growth Target

As emphasized, the creation of a vibrant economy is one of the main targets to enable CAAM to catch up with Mindanao and the Philippines. Economic growth is deemed to contribute to poverty reduction. As such, stability of the economy in CAAM is a prime objective the next

15 years and beyond.

CAAM's GRDP growth rate must achieve a 5.49 % upward trend in order to sustain a progressing economy. This rate will lead to a doubling of the GRDP in 15 years and break the 125M mark by 2023. As a result of this the agriculture, fisheries (AFF) , and services Sectors will experience growth regimes and there will be an increase in the volume of goods and services.

Ultimately, the goal for CAAM's economy is to be driven by advanced technologies and ongoing improvements in efficiency as its existing infrastructure and support facilities are upgraded and potentials advanced. However, the amount of resources consumed should not take significantly reduce the available resources. Factors detrimental to natural resources and the environment shall be mitigated.

4.2.1.2 Expected Population Trend

Population growth may have a large bearing on the socio-economic development of CAAM. To mitigate any detrimental effects this may have, the inducements to a robust and high-quality human resource must be encouraged by providing a large domestic market for the economy and, therefore, in all likelihood increase economic growth.

The population size, distribution and structure, dictate the type and range of basic (Minimum Basic Needs) services to be provided, and influence service delivery. As already emphasized, a comprehensive understanding of population growth and its relationship with development planning is critical to projecting the future needs of the locality and its economy, to gether with the identification of potentials and formulation of measures to mitigate the negative impact of development.

From the current trend and if the growth rate achieves 3.64%, CAAM's population will expected to growth for the next 15 years, from 6.5M in 2007 to 12.43 million in 2023.

4.2.2 Main Tasks

First, peace shall be considered as the instrument to create an environment conducive for CAAM reconstruction and development and entails steadfastly maintaining a mechanism for any future conflict prevention and resolution.

Second, increase access to and the effective delivery of social services, particularly in education, health, housing and welfare for its constituents. These are critical issues specifically in remote and under-served CAAM communities including the need to slove the

social integration and rehabilitation of Internally Displaced Peoples (IDPs). In Education, enhance delivery through the both; Madrasah as a learning institution that instills culture and reflects the way-of-life of the CAAM community; and strengthening Science and Technology education programs to promote more appropriate foundations for policy-making, development of guidelines and applied research in to the utilization of potentials. This is vital to the enhancement or increase of production for the agro-industrial development in CAAM.

Third, boost the economic sector of CAAM by establishing and strengthening links with agro-industries to enhance the quality of the agricultural products and improve their competitiveness within the international markets.

Specifically, the tasks under the economic sector will include: (i) intensifying the Halal industry as Mindanao's competitive edge and exploring opportunities for Halal Financing and Banking system The concept of Halal is extensively discussed in Annex E; (ii) Encouraging small scale enterprises to increase the support to livelihood projects within CAAM communities; (iii) Increasing the financial and economic skills and capabilities of participants to be able to integrate the sustainability component of the proposed economic activities; (iv) Encouraging private sector participation in delivery of business services; and (v) Maximizing the use of appropriate and advanced technology to support agro-industries and businesses to establish a self-reliant, efficient and sound CAAM economy.

Fourth, the fundamental provision of vital infrastructures and utilities such as farm to market roads, water supply systems and the provision of electricity are necessary for the efficient delivery of services and facilitation of economic production to support the CAAM. Physical infrastructure shall also accommodate the necessary manpower and faculties to function effectively, and attain the objectives set forth in this intervention. Moreover, an efficient growth strategy coupled with intermodal logistics system support shall enhance regional and sub-regional production development networks.

Fifth, create a strong cultural foundation by enhancing the knowledge based economy and develop skills and capabilities of the CAAM human resource, including IPs, IDPs pool and labor force, taking into consideration CAAM's rich cultural heritage. The acceptance and harmonization of indigenous peoples and highlighting religion-based socio-cultural systems will enhance Mindanao's competitive edge and bring about a balance between the material and spiritual aspects.

Sixth, promote sustainable development by ensuring that economic growth goes together with environmental stewardship and to maintain the ecological balance. This can be realized through the effective and efficient conservation, preservation, restoration and management of the environment and natural resources. To recreate a peaceful and good community

environment a model for new settlements will be adopted to uphold biodiversity conservation, reforestation, and the rehabilitation of degraded ecosystems, especially CAAM's coastal resources, and the institutionalization of disaster management systems such as flood control, across the region.

Seventh, institutionalize good governance, encourage stakeholder participation and ownership through holding of regular consultation and consensus building, and the continuous monitoring of projects. Put in place measures that will ensure project sustainability to achieve regional solidarity, improved efficiency, significantly changed reforms, whilst minimizing bureaucratic monopoly and corruption.

4.2.3 Spatial Development Strategies in CAAM

While CAAM is over most of Mindanao, its socio-economic development is based on the region's uniqueness in terms of its rich cultural environment, the potential of the Halal industry, the development of eco-tourism, of research and development, the agro-industries and crafts and the potential of enhancing the logistics potential to ensure a more efficient delivery of goods and movement of people within and in and out of CAAM.

Current development trends of urban centers in CAAs suggest a tri-polar growth strategy with identified linear corridors enhancing links among the growth centers of Metro Cotabato, Marawi City and Pagadian City. This will serve as a catalyst in the development of the adjacent districts.

The strategy recognizes existing urban centers with high growth potentials whilst matching them with districts with high development needs. The strategy aims to integrate policy concerns and pursues the concept of depressed area revival, to encourage regional de-concentration and modification of its urban system in the pursuit of a more balanced inter-regional development. Within the context of the Regional Physical Framework Plans (RFPF) of regions in Mindanao, growth poles in CAAM are identified, developed and expected to complement (not replicate), the socio-economic development of other urban nodes and satellite municipalities. Each growth center shall be supported with varying types and levels of investment in order for them to provide distinct roles and functions in CAA development and in the region.

This strategy shall be pursued in the context of sustainable development. Thus, the integrity of the environment shall be maintained, and all human rights shall be upheld (see Figure 4.6-1).

4.2.3.1 Tri-Polar Development Centers

Three key cities to be designated as tri-polar development centers in CAAM are Marawi City, Pagadian City and Cotabato City (see Figure 4.2 -1). The development of these growth centers is envisioned to be together with the implementation of projects that will strengthen their physical links, enhance existing support systems and gradually establish a stronger socio-economic link among the three key cities.

These cities also replicate CAAM's population growth trend with a continuous increase in their population.(see Figure 4.2-2)

Population growth, if dealt with appropriately, can be an excellent strategy. Out of these, high quality human resources can be created to improve economic activity.

As the existing economic strengths of these cities and their other potentials are improved and upgraded and as population dynamics are linked to productivity, they are expected to serve as the future tri-polar centers in CAAM.

(1) Metro Cotabato as CAAM'S Juridical Center

While Cotabato City is not part of CAAM, it is strategically located at its center and may serve as a multi-center city that links other provinces in the region along accessible national routes and highways. Cotabato's prominence has been manifested by the heavy concentration of government offices, commercial bank branches and is a seat of local government of ARMM which covers half of CAAM population. In the tri-polar development, Cotabato City would be a judicial regional center of CAAM while its existing international, national and regional functions would be intensively upgraded in SEDP.

Cotabato City (176 sq. km, Population 259,153 in 2007 Census, Density; 1,472 sq km) is located in Region XII and is also the regional center of ARMM. Cotabato City is approximately 698.9 nautical miles (1,294 km) from Manila. Cotabato City has a limited area (176 sq. km) to be a regional center of CAAM. Hence SEDP proposes the concept of Metro Cotabato (891 sq. km), a unique inter-local government unit composed of Cotabato City and eight municipalities in the provinces of Maguindanao and Shariff Kabunsuan. Metro Cotabato or the Metro Kutawato Development Alliance (MKDA) is a contiguous area that comprises Cotabato City; Municipalities of Datu Piang, Talayan and Talitay in the Province of Maguindanao and; Datu Odin Sinsuat, Kabuntalan, Parang, Sultan Kudarat in the Province of Shariff Kabunsuan.

The MKDA, which was established in 1999 was aimed at spurring balanced social and economic development within the cluster through spatial complementation. Among its

objectives are to foster cross-border cooperation, to strengthen multi-stakeholder participation, and to establish a unified economic base. It pursues to create a mini-growth area based on sustainable agri-development. Its eight municipalities are poverty-stricken and are still emerging from the ravages of war. Cotabato City also had poverty incidences higher than the Philippine Rate from 2003 to 2006. The inclusion of the MKDA among the triangular development centers is deemed to pave the way for its further development and also the growth of the nearby areas.

More importantly, Metro Cotabato has great potentials for development. It has existing urban service facilities such as an airport, seaport and a vast hinterland. Metro Cotabato would be a hub of socio-economic activities, transportation, logistics and communications with links in East Asia Growth Area (EAGA) and the rest of the Philippines. Cotabato City has been identified as a Primary Growth Node along the Cotabato City-Kidapawan Corridor (or CK Corridor). Similarly, the Parang-Sultan Kudarat Linear corridor which covers Cotabato City and municipalities of Parang and Sultan Kudarat and other adjacent municipalities is currently serving as the lead institutional, financial and service center of the regions, and of other adjacent urban centers and may be expanded.

Owing to its proximity to the provinces of Maguindanao and Lanao del Sur of the ARMM, it shall continue to serve as the provisional seat of the autonomous government, as well as the adjacent municipalities of Cotabato province. Cotabato Regional Medical Center specializes in trauma and related cases and the city shall continue to be the center for public health services.

(2) Marawi City, the Cultural Hub and R&D Focal Point

Marawi City, as the cultural hub and research and development focal point in the tri-polar growth strategy of the CAAM region, shall promote community activities that work towards the preservation of CAAM cultural identities especially the cultures of the ethnic minorities and Muslims within CAAM and the surrounding ARMM region. Activities shall focus on building the cultural and information dissemination of CAAM through strengthening its research and development to achieve Centers of Excellence in various areas. Handicrafts such as brass making may be developed and its temperate climate developed for the production of temperate agricultural products. Lake Lanao is the major water source for irrigating adjacent municipalities through the Agus River Irrigation System.

Marawi City (87.6 sq km, Population; 177,391 in 2007 Census, Density; 88 population/sqkm) is a third class city and the provincial capital of Lanao Del Sur. It is known as the “summer capital of the South”. Marawi City is bounded on the north by the municipality of Kapai, Lanao del Sur, on the east by municipalities of Bubong and Ditsaan Ramanin, and on the south

by Lake Lanao. The economy of Marawi City is largely based on agriculture and trading. It is located in the area of industrial development with high value agricultural crops such as exotic fruits, forestry, and eco-tourism. The city lies beside Lake Lanao, the second largest but deepest lake in the country. It measures about 360 square kilometers in area. Lake Lanao is also a major source of power for the entire Mindanao Grid through the Agus Hydroelectric Power Plants.

Marawi, has potential to be developed further as the Islamic capital of CAAM given that Marawi City is the center of Mindanao and Islamic culture. Marawi City has numerous historical, socio-cultural and educational landmarks which enhance the area as a tourist hub in the CAAM as well as the region. The natural and historical attraction showcases the industry of Maranao and the Muslim tribes in ARMM. The city is endowed with potential tourist destination spots, annually celebrating the natural, historical and colorful cultural festivals of its people's unique culture and tradition. The picturesque Lake Lanao, the beautiful mosque, Forth Corcuera in Malabang are among these landmarks.

One of the two autonomous universities in the Philippines, the Mindanao State University (MSU), has its main campus in Marawi City. MSU houses the famous Aga Khan Museum donated by King Aga Khan which contains Maranao and Moro artifacts as well as an extensive collection of indigenous Muslim art and cultural materials, ethnic music, native tools and weapons, and artistic houses of different designs. The students of MSU are 90% Government scholars coming from all over the country selected from the top 5% of graduating high schools and it is therefore considered as a high caliber university and is a center for research and development and a center of excellence in Science and Technology.

(3) Pagadian City, CAAM Gateway and Logistics Hub

Pagadian City, geographically located within the Zamboanga Peninsula, shall serve as the gateway to the CAAM socio-economic development by providing an improved and effective links among CAAM provinces. The gradual investment for the improvement of cargo ports will provide a logistics hub for CAAM and further strengthen trade and economic cooperation with other regions of Mindanao, and the rest of the Philippines. To efficiently serve as a gateway and logistics hub, macro-projects are identified within the region which focus on the improvement of waterways, modernization of international airports, the more effective utilization of the existing seaports and development of peripheral road systems.

Given its geographical location, Pagadian City serves as the gateway by land and sea to CAAM. At present it serves as the port for Region IX (Zamboanga Peninsula) and Region XII (Central Mindanao). It strongly envisions growth in commerce and trade among the neighboring provinces, municipalities, and in the island of Mindanao. Its commercial and

agricultural activities are supported with adequate infrastructure. Moreover, its diversified people, indigenous culture and vibrant economy make Pagadian City one of the most promising cities in Western Mindanao.

Pagadian City (378.8 sq. km, Population; 161,312 in Census 2007, Density; 426 per sq.km is the provincial capital of Zamboanga Del Sur in Region IX. It is the regional center of the Zamboanga Peninsula. Pagadian City is known as the “Little Hong Kong of Mindanao”. It is situated in the crossroads between the cities of Ozamis and Iligan in the east, Zamboanga and Cotabato City in the south across Yllana Bay.

Developments within Zamboanga that may help the development of the Tri-polar Development Centers include: Sibuco-Sirawai-Siocon-Baliguian Road in Zamboanga del Norte, Zamboanga Airport in Zamboanga del Sur and the wharf extension of the Pagadian Port is presently being undertaken and funded under the Philippine Ports Authority Corporate Funds. A Passenger Terminal Building in the Port of Margosatubig, Zamboanga del Sur is being constructed and an extension of RC wharf.

Pagadian City had an average annual growth rate 2.82% higher than the national growth rate and has potential as a growth center, being designated as a primary urban center. At present, it serves as the administrative seat of regional offices, a trading and commercial center as well as the industrial hub of Zamboanga del Sur. It has attracted investors for land development, banking services and development. It likewise trades actively with its neighboring towns and cities within and outside the region.

It also has indicator functions including branches of the Manila based commercial banks, large commercial establishments, provincial and local bus services, secondary feeder port facility, trunk type of airport, secondary health care services, tertiary level educational services, hotel and recreational facilities, among others.

Under the RPPF of Region IX, Pagadian City is part of the Yllana Bay Special Integrated Development Area (IDA). It is also part of the Dapitan – Polanco – Dipolog – Katipunan – Roxas - Manukan Growth Corridor and is considered as a regional center providing alternate access to the region. It also serves as the socio-economic center for Zamboanga del Sur.

The planned navigable Mindanao Canal will connect the Panguil Bay in Northern Mindanao with Pagadian Bay or Yllana Bay in Southwestern Mindanao through the municipalities of Aurora and Tukuran or along Kapatagan and Sultan Naga Dimapora. However, as yet no feasibility study has yet been undertaken to ascertain its economic and technical viability as well as its environmental soundness. It is assumed that the 15 kilometer canal, if constructed, will translate into shorter travel time and ensure a more efficient movement of agricultural

goods and commercial products to different areas in Mindanao. In this case, Pagadian City may serve as a logistic support system of CAAM.

4.2.3.2 Development Corridors

As the linkage among the three key cities is strengthened; the dispersion of development towards other areas covered is expected, thus effecting the formation of the development corridors. The corridors are deemed vital in connecting trade and commerce among the three key cities and other areas within their respective corridors. It will also tap the potentials of tourism. Since trade relations are to be engendered within these corridors, an influx of capital and infrastructure development is a prime requisite. This would require major improvements such as the widening and raising of the road network that cuts across the corridor especially in the municipalities where the road systems dilapidated and prone to flood.

The Three linear corridors are: Corridor 1, the Cotabato-Marawi Corridor (129 km); Corridor 2, the Marawi-Pagadian Corridor (170 km); and Corridor 3, the Pagadian-Cotabato Corridor (See Figure 4.6-1).

(1) Corridor 1 (Cotabato-Marawi Corridor, 129 km)

This links the two cities through the municipalities of Sultan Kudarat, Parang, Matanog, Balabagan, Kalanogas, Kapatagan, Malabang, and Pualas. Cotabato City and Marawi City will serve as the primary growth nodes of the corridor.

Along the Corridor, the agro-fishery industries are identified as major industries, including inland marine fisheries, vegetable production, coffee and abaca production, fruit orchard, and high value crops. Tourism is notably a potential industry. Many areas within the corridor, especially in the growth centers and municipalities, like Parang and Sultan Kudarat have potential tourist attractions.

Cotabato City will play a major role especially as a transshipment hub of the corridor using the Awang Airport and Polloc Port in the province of Shariff Kabunsuan (recently returned to the Second district of Maguindanao), which is in very close proximity with Cotabato City.

(2) Corridor 2 (Marawi-Pagadian Corridor, 170 km)

This links Marawi City to Pagadian City. The corridor passes through the municipalities of Bacolod and Tubod. Marawi City and Pagadian will serve as the growth nodes of the corridor. With Marawi City serving as an Islamic center and Pagadian city as the major infrastructure channel of the corridor due to the presence of airports and seaports, the promotion of the Halal industry and the flow of economic activities will be facilitated. Agro-ecotourism will be

pursued as aquaculture and marine culture, high value fruits and vegetables, and tourism development are the identified major industries found along the Corridor. At the same time, there is a need to intensify the protection and security of wildlife, forest and protected areas.

(3) Corridor 3 (Pagadian-Cotabato Corridor, 160 km),

This is located between Pagadian City and Cotabato City, and passes through the municipalities of Tukuran, Sultan Naga Dimparoro, Tikong, and Malabang. Seaweed farming and processing, aquaculture, rubber production and processing are identified as major industries along the Corridor. Pagadian City and Cotabato City will serve as the two growth nodes within the corridor. The two offer competitive advantages to the corridor especially in terms of infrastructure support.

4.2.3.3 Development Districts

Ultimately, it is envisioned that the Triangle Development Centers with development corridors interconnecting them are expected to influence the growth of their respective neighboring areas as they bridge development to potential development districts in CAAM. These development districts are the Western District, the Central district, and the Southern District (See Figure 4.2-2).

(1) Western District

The Western District is located in Zamboanga Peninsula. It is composed mainly of the provinces of Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay and the city of Isabela and other areas within the district especially those which are conflict-affected.

High poverty incidence is one of the factors that influenced the inclusion of the western district as one of the development districts of CAAM. More importantly, all of the areas within the district are conflict-affected which leads to the need for its inclusion. Zamboanga del Norte was one of the Philippines's top ten poorest provinces in 2006 with a poverty incidence rate of 63%. Zamboanga del Sur and Zamboanga Sibugay also had poverty incidences higher than the national figure of 26.9% during the same year.

While high poverty incidence and conflict have hindered the growth of the district, much of the stimuli for growth came from the opportunities and potentials for development that the district exhibits. The economy is dominantly agriculture. Among the major crops produced are rice, corn, coconuts, rubber, fruit trees, vegetables, tobacco, coffee, cacao, and root crops. The district is also rich in marine and mineral sources. The leading industries are bakeries, rice and corn milling, food processing, and rattan and wood furniture production.

There are also notable mining areas in the district. Zamboanga del Norte in the Municipality

of Bayog, houses the renowned TVI, a Canadian-based mining firm with interests in Gold Mining, and also the Cebu Ore Mining company with interests in the Ore-Copper-Steel mines. With Sibuco-Sirawai-Siocon Baliguian Road Network pursued as a priority project of Mindanao's super regions, it is envisaged this will be to the district's competitive advantage.

Pagadian City will encourage development in the district given its role as a growth center in CAAM serving as the exit point conveying potentials to other areas and the entry point for development opportunities.

(2) Central District

The Central District includes the provinces of Lanao del Norte and Lanao del Sur. These areas have poverty incidences higher than the national average. The potentials of the district will start the development process. The strength of the district's economy is its agriculture, its marine resources and tourism.

Lanao del Sur has tilapia culture and crab fattening ventures as the primary investment opportunity. Its large area of water suitable for inland fishponds and production capacities it could also support processing activities. As cited in RFPF, Region X, in Lanao del Norte, agriculture and fishing predominate its economy. More importantly, the agriculture potentials of the province shall be promoted as an agriculture processing center. A number of existing factories are mostly based in Iligan City. Lanao del Norte is also the home to the Agus Power plants 4, 6, and 7 that stretches from Baloi to Iligan City. It serves as the power supply for parts of Mindanao.

Marawi City will become the immediate growth node of the district. Its role as the center of Islamic culture shall promote development of Halal industries. Due to the historical, socio-cultural and educational landmarks, tourism is also expected. Its role as a major source of electricity for the Mindanao Grid Network shall further development and it will be expected to work together with Lanao del Norte to become the main electricity supplier of the Conflict-Affected Areas in Mindanao.

(3) Southern District

The Southern District encompasses a larger number of provinces namely, North Cotabato, South Cotabato and Sultan Kudarat in Region XII and Maguindanao and Shariff Kabunsuan in ARMM.

While some of the provinces have moderately high poverty incidences, many have poverty incidences much higher than the national poverty incidence especially in the provinces of ARMM. Like the two districts, discussed above, poverty and conflict incidence, to some degree, incited the need for development. However, it is its development potential that predominately encourage its inclusion as one of CAAM's development districts. The Southern

District includes areas where the economy is dominantly agriculture but industry and tourism exhibit potential development. Tourism will play an equally important role in the district's economic development as among its major natural assets (mostly found in the province of North Cotabato) are Mt. Apo, the country's highest peak at 10,311 feet above sea level, the Pulangi River a major contributor to Mindanao's irrigation system and hydro-electric energy generation, and the vast Liguasan Marsh which not only supplies a bounty of freshwater fish and organic fertilizer but is also considered as a possible source of natural or biogas. Thus, Agri-industry and Tourism are clearly the sectors where its competitive advantage lies.

North Cotabato is considered as Mindanao's food basket. It is a major producer of cereals, tropical fruits, vegetables, sugarcane, coconut, coffee, freshwater fish and livestock. It is also one of the country's leading producers of natural raw and semi-processed rubber and industrial trees with markets in Asia and Europe.

The significance of Cotabato City as one of the growth nodes of the corridor is justified by its early role as one of the largest markets in the south-central part of Mindanao. It promotes economic transactions between Region XII and ARMM, being an exclave of the former and a regional seat of the latter. Its strategic location offers a significant take-off point and base for inter-regional commerce and trade related activities. This opens the opportunity for the district to showcase its products, natural attractions and trade and investment opportunities and attract development.

The four provinces in SOCCSKSARGEN provide a rich, natural resources which can be mobilize to make full use of its strategic location and advantages, promote industrializing and modernization in agriculture and establish a large-scale and specialized commodity producing region. The region may serve as a focal economic zone with high, effective and sustainable growth rates. However, it will be necessary to improve the socio-cultural conditions to be in line with the national average standards, improve the spiritual and material life of local people while ensuring that the socio-economic development is to be undertaken together with environmental protection and political stabilization to uphold the human security paradigm of CAAM SEDP.

The planned Halal laboratory facility in Koronadal City will help create additional job opportunities and spur the economy in the region and in adjacent CAAM municipalities. As a complementary activity, neighboring areas may expect an increase in demand for raw materials such as industrial crops, medicinal and aromatic plants, fruit trees, flowers, vegetables for both domestic and export markets. Demands for livestock raising and agricultural products may also rise.

High priority projects within the Southern Districts are: the Kabulnan Irrigation project Phase II (Maganoy Dam No.3) in Maguindanao and the Awang-Upi Lebak-Kalamansig Road which traverses the provinces of Maguindanao and Sultan Kudarat.

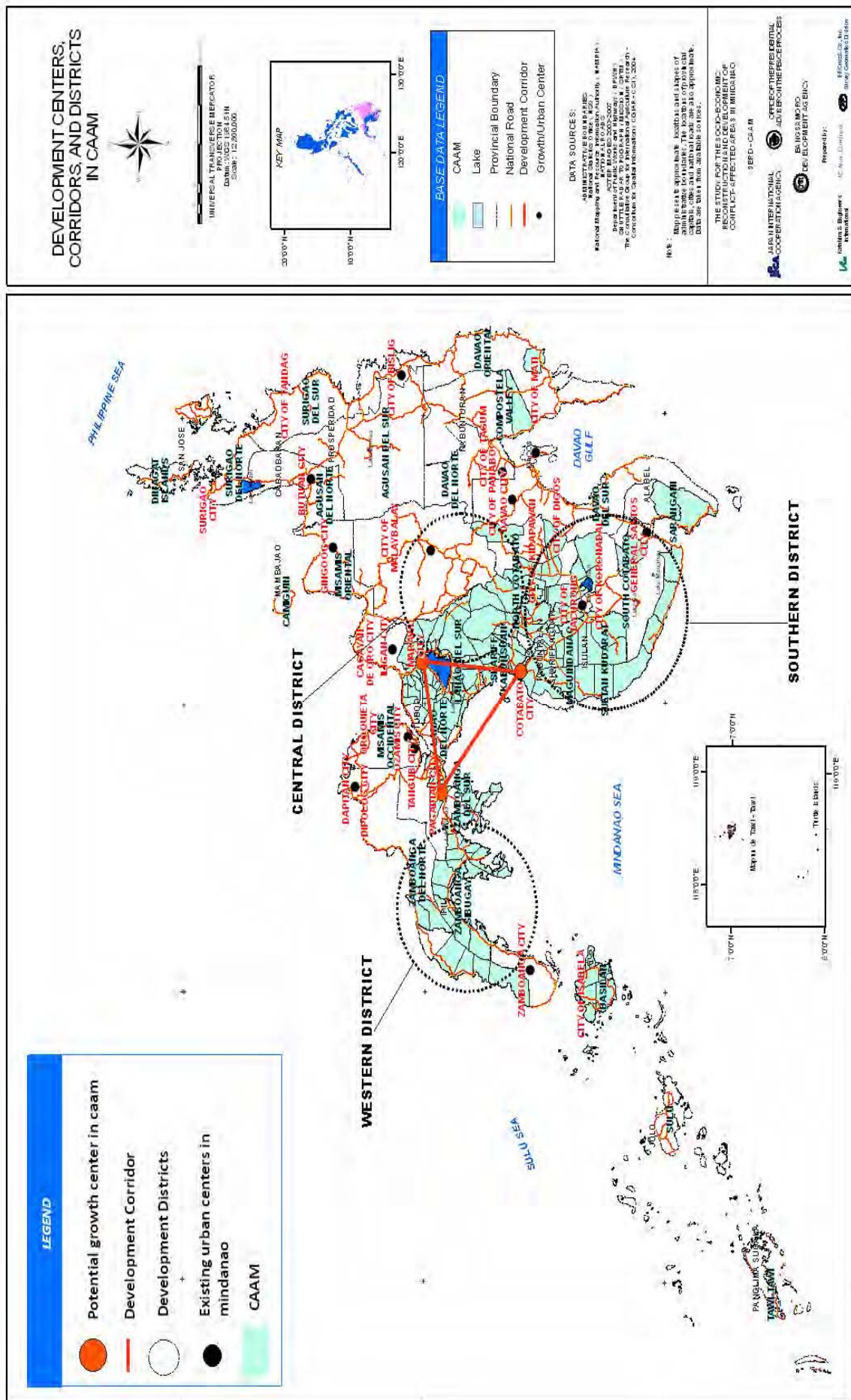


Figure 4.2-1 Development Centers, Linear Corridors and Development Districts

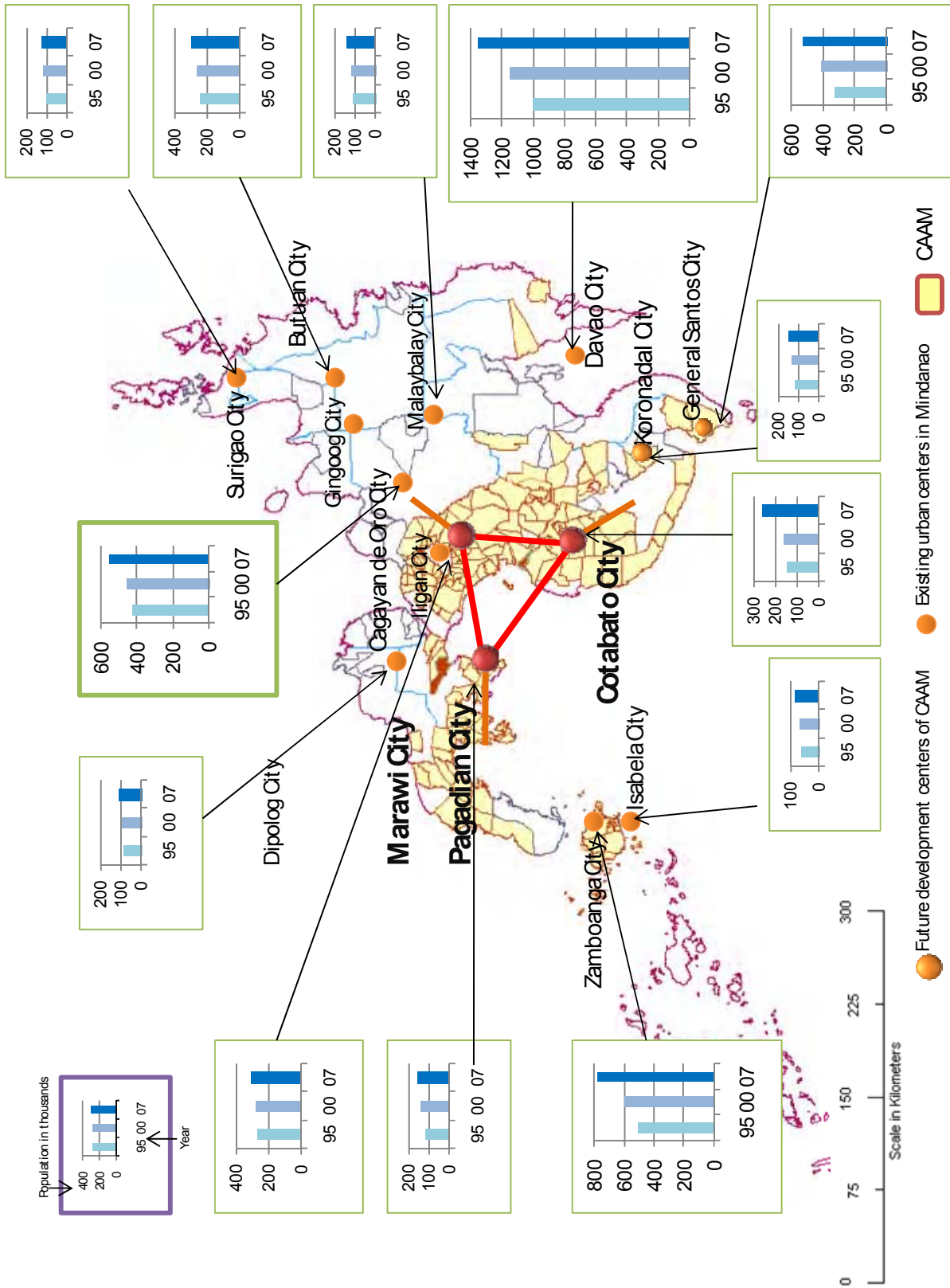


Figure 4.2-2 Tri-polar Development Centers and existing urban centers in Mindanao with populations for years 1995, 2000 and 2007

4.2.4 Sectoral Strategies, 2009-2023

The basis for identification and project prioritization was the Needs Assessment discussed in Chapter 3. The exercise was conducted by various consultative and participative surveys at the CAAM community level.

The seven SEDP goals are grouped into six sectoral groupings wherein the goals and objectives, strategies (both general and specific) and targets are identified. Formulation is based on drivers of development at the lowest unit level available: municipal, barangay or household. Appendix F provides a summary of the SEDP Goals, Strategies, Targets and Projects.

4.2.4.1 Social Sector

Challenges in the social sector vary greatly and appropriate interventions from training to provision of equipment, construction and rehabilitation of small infrastructure formed the basis for prioritized development projects to address the immediate rehabilitation of CAAM communities, specifically at the barangay level, with strong emphasis on the following subsectors: health, education, clean water supply system and electrification.

(1) Goal and Objectives

To improve access to basic social services with the aim of improving the overall well being of CAAM constituents by achieving a rational distribution of opportunities to improve life and increase prosperity and in particular;

- 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 diseases, and raise life expectancy
- Encourage partnerships between communities and the private sector in poverty awareness and creating poverty reduction programs

(2) General Strategies

By the end of 2023 or the 15 year implementation plan of SEDP, the general strategies will have made a significant impact on the socio-economic development of CAAM by increasing development to make it on a par with other areas in Mindanao and the Philippines.

1) Improve access to and provision of basic social services

Ensure effective access to social services especially in disadvantaged communities and remote CAAM barangays. This shall include the provision of infrastructure for education, health, water supply and electricity and shall also address the necessary man-power and support facilities.

2) Pursue small scale but high impact projects

Social sector interventions require small-scale infrastructure development but high impact investments at the community level. Potential projects need to be focused on the construction and rehabilitation of schools and health clinics, provisions for Madrasah education, hospitals at the district level, and daycare centers in remote areas and indigenous communities such as areas with IPs.

3) Environmental compliance of all implementable programs and projects

It is a requirement that all projects strictly comply with all international and national environmental laws and regulations and adhere to the path of sustainability in all phases of the project from planning to implementation including the monitoring and evaluation stages.

(3) Specific Strategies on Education Subsector

1) Improve Equitable Access to Education

Construct new and upgrade existing Educational facilities in identified barangays within CAAM at all levels, elementary, secondary, Madrasah and daycare centers. Provide the necessary schooling facilities (i.e. appropriate equipment, books, desk, blackboards, etc.). Upgrade the quality of teachers by employing qualified teachers who provide effective and efficient education. Work towards one elementary school, one secondary school, one Madrasah and one Daycare Center per barangay. Encourage residents in CAAM, in particular girls, IPs and IDPs, to attend and receive a quality education.

2) Improve Quality of the Learning Environment

Improve quality, relevance and management of the education system. Ensure compulsory elementary and secondary education within CAAM and the development of education at all levels, paying particular attention to IPs and Muslims and other disadvantaged groups. Address gaps in literacy, school enrolment and completion rates, particularly among IPs and other ethnic minority groups. This is critical both to achieving the government's education and literacy goals and the goal of poverty reduction as well as increase labor productivity.

3) Implement National and Regional Standards and Programs to Mainstream Madrasah

Enhance CAAM education through a strengthened and mainstreamed Madrasah education

system. Recognize the presence of Madrasah and implement community-based Madrasah education to increase access to education for Moslems. Improve teaching quality and education resources for the Madrasah or Madaris.

Madrasah education system centers on Arabic literacy, Islamic values and religion and is a critical factor in the preservation of the Islamic faith and culture. It can also be instrumental for promoting peace and development in Mindanao, because of its wide coverage among Muslim communities; it can encourage them to get involved in the development process. 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.

4) Pursue an Integrated Curriculum with technical skills development at the Secondary level

Enrich secondary level of education by integrating computer skills and strengthen the Science and Technology programs of students in the CAAM. Strengthen the links between the Education system and Industry to improve employability of graduates and thus improve the human resource participation in work. 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 like computer literacy, carpentry, welding, and technology applications in food production and processing by the promotion of the Halal Industry.

(4) Specific Strategies on Health Subsector

1) Increase people's access to quality Health Care and Nutrition

Expand the rural health service network to provide adequate and fair access to basic health care services especially for people in remote communities in CAAM. Construct new and upgrade existing Health facilities by accelerating investments in health care programs by increasing the number of Barangay Health Centers (BHCs) and Rural Health Units (RHUs) at both the barangay and municipal levels.

2) Improve the delivery of quality basic health Service

Meet the demands of local people as well as strengthen alternative health remedies and practices to augment traditional practices. Promote priority programs in the health sector which focus on primary health care covering both preventive and curative aspects. Raise the capability and qualification of health care professionals, increase the quantity and quality of equipment and support facilities. Increase access of the people to essential drugs at affordable prices by putting up Botika ng Barangay in every barangay.

3) Intensify information dissemination drive and campaign on Health and Sanitation

Increase awareness of how to improve the health and sanitation status in CAAM through efficient and cost-effective methods and programs. Creating awareness through information dissemination to include information on health and sanitation related issues, to stop the spread of communicable diseases, decrease maternal and child mortality rates, promote immunization as the cornerstone of primary health care, prevention and treatment of water borne diseases, treatment of communicable diseases and their prevention. Implement education on leading a healthy lifestyle free from illness and disease, and 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.

4) Upgrade the Capacity of Health Workers

Promote good opportunities among the Health Personnel/Medical Practitioners and increase morale and quality of services of health workers and personnel at the municipal and barangay levels. Upgrade the quality of health services through increased opportunities for medical training of barangay health workers and midwives particularly to handle emergency human security issues with the provision of relatively simple facilities and equipment. Programs can range from the short term to the medium term and should be incorporated into Health subsector activities to help alleviate shortage of qualified medical workers.

5) Promote and Upgrade Reproductive Health Care and Services

Improve mother and child health services and women's access to primary health care to achieve a substantial reduction in maternal and infant mortality rates. Ensure access to health care for women and children, particularly in remote and poor areas of CAAM. Increase their involvement to ensure the successful implementation of immunization, clean water and other public health programmes.

(5) Specific Strategies on Housing and Resettlement Subsector

1) Resettlement, rehabilitation and reintegration of IDPs

Establish a coordinated and integrated response to the resettlement, rehabilitation and reintegration needs of IDPs including, comfortable and clean housing and a good environment. Priority should also be given to support return and reintegration, together with strong anti-poverty and development measures for Mindanao whilst addressing the causes of the conflict in Mindanao.

The type of anti-poverty and development plans to accompany the resettlement, rehabilitation and reintegration of IDPs should achieve a holistic impact through the convergence of initiatives of sector/subsector for the most needed basic utilities and support systems including projects of various donor/funding organizations/agencies both at the local and international

level. This is the only way to ensure a lasting political settlement and prevent future cycles of displacement and destitution for the Mindanoans.

(6) Key Targets in the Social Sector

1) Education

- Improve and rehabilitate vital education infrastructures such as substandard elementary school and secondary school facilities in identified CAAM barangays.
- Upgrade 1,073 primary or incomplete 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 reach the ratio of 1 elementary school to 372 schooling age population.
- To catch up with Philippine average: 1,276 elementary schools are needed to be built in CAAM to reach the ratio of 1 elementary school to 356 schooling age population.
- Given the lack of elementary and secondary facilities, the list of high priority municipalities in the Education subsector includes the following: Sultan Naga Dimaporo (Karomatan), Poona Piagapo, Munai, Magsaysay, Lumba-Bayabao (Maguing), Kapai, Bubong and Bayang.

2) Health

To achieve the Mindanao average, based on the needs assessment and the gap analysis, a total of 3,080 hospital beds need to be provided, and increase the number of BHCs by 56 % to the number of CAAM barangays. Provide 50 RHUs within CAAM.

Priority shall be given to the provision of BHCs to all the barangays in the municipalities of Munai, Bayang, Pagayawan (Tatarikan), Pualas, Lumbayanague, Tagoloan II.

Increase the number of health personnel such as physicians, midwives, nurses and dentists according to the standard ratio of health personnel to population.

4.2.4.2 Economic Sector

The approach in the economic sector shall be two-pronged with macro-level interventions in collaboration with micro-level programs and projects to achieve highly competitive region, especially in terms of economic development. Whilst maintaining regional industrial development through the pursuit of the tri-polar growth strategy by tapping its cities, municipalities and provinces with high industrial potential, barangay level interventions will be strengthened by boosting rural small-scale industries and pursuing craft and livelihood diversification to revise the rural economic structure and improve the labor's income.

(1) Goal and Objectives

The Economic sector shall address the following objectives:

- Intensify, expand, diversify and develop economic enterprises
- Increase agro-fishery production and industrial productivity to gradually become the “food basket” for the region
- Attain sustainable agro-industrial development to help CAAM communities and its people overcome poverty and generate more stable jobs
- Speed up land distribution and land tenure development.
- Build an investment-friendly environment and put up mechanisms that would improve economic development
- Ensure food security and price stabilization.
- Achieve a fair playing field to establish businesses and investment.
- Create sustainable livelihood options for the underprivileged.
- Ensure participation of all identified economic sectors such as increasing agricultural production of high yielding crops while identifying potential products.

(2) General Strategies

This strategy is discussed already under the Spatial Development Strategies (See 4.2.3).

1) Tap CAAM’s rich natural resources

Optimize the utilization of the rich and abundant agricultural and marine resources without depleting the resources to improve the lives of the people and alleviate them from poverty. This will serve as the key to a dynamic economy whilst, at the same time, ensuring a sustainable agro-industrial development that will provide a stable sources of income. CAAM populace to equally benefit from the revenues generated from the usage of resources within the area.

2) Develop the Economic Sector in Close Collaboration and Active Partnerships with and among Development Partners

Ensure that plans and programs are implemented in close collaboration with all concerned local government units, national agencies and other partners in development. Undertake more responsive and significant interventions that are achievable within a given time frame and are cost-effective with the government budgetary appropriations. Define the scope and guidelines for better coordination and complementation of economic development projects among partners and other development implementers within CAAM.

3) Ensure Environmental Compliance

The activities covered under the Environmental sector entail community level developments

with least negative effect on the environment within CAAM. The community level developments include livelihood activities, agriculture, fishery and trade and will likely include an infrastructure subcomponent such as improvement or construction of new facilities. In this regard, compliance to environmental laws and regulations must be ensured. Environmentally friendly practices should be adapted for all projects such as proper land use to prevent runoff and the appropriate use of chemical fertilizers and pesticides which may be detrimental to the health and well-being of people, animals and the environment.

(3) Specific Strategies in Agriculture, Aquaculture and Fisheries Subsector

1) Intensify, encourage and pursue Agro-industrial development

Prioritize small and medium scale agro-industrial development projects, and service industry developing the potentials of agriculture, fishery, and tourism. The development of agricultural and fishery production must provide a sustainable development plan. Capitalize and intensify the production of crops that are of high value, locally suitable and economically viable when grown in plantations such as rubber and cassava or the other top five commodities with export potential; fresh bananas, crude and refined coconut oil, fresh and canned pineapple, fresh and dried mangoes, and desiccated coconut.

2) Modernize the Agro-Fisheries Subsector

In line with RA 8435 or the Agriculture and Fisheries Modernization Act, improve the implementation of projects adopting the programs of the Department of Agriculture for the industrialization and modernization of agriculture and aquaculture subsectors in CAAM. Within the economic structure transformation in CAAM to ensure a high quality of agro-fishery products, modern and appropriate postharvest facilities will be installed such as the Barangay Food Terminal (dry and cold storage facilities), mechanical dryers, processing for meat and dairy products, and fish canneries.

(4) Specific Strategies on Livelihood, Trade and Industry

1) Create an investment-friendly environment

Provide capability building projects for the formulation and implementation of Barangay level investment plans providing an environment conducive for sound agro-industrial projects such as small to medium scale enterprises with corresponding financial support initiatives. The Barangay level investment plans will encourage family, individuals and groups to engage in alternative livelihoods in addition to their primary sources of income. These enterprising activities will serve as catalysts for improving the quality of life in the CAAM.

2) Develop the Halal Industry

Promote the establishment of more Halal industries and products in Mindanao particularly within CAAM. It needs strengthening to be internationally competitive and earn a significant

share of the \$600 billion global Halal market as it targets a collective Muslim population of approximately 1 billion. This will also promote travel and tourism for individuals in CAAM.

Mindanao, being the food basket of the country, shall provide raw materials such as seaweed (agar-agar), copra, corn, oil palm, rice, banana, pineapple. It is also a major source of cow, goat, chicken, fish and tuna to fuel the growing Halal food processing business. This may be developed within the context of the BIMP – EAGA (Brunei – Indonesia – Malaysia – Philippines – East ASEAN Growth Area).

3) Provide trainings on alternative livelihood

Facilitate economic initiatives at the Barangay level and ensure sustained growth by providing training on alternative livelihood opportunities for CAAM communities. Encourage partnerships with academic and research institutions, government agencies and organization in addition to international and local organizations for technical expertise and knowledge in order to sustain livelihood initiatives with the end goals of creating employment opportunities, alternative income sources, and increases in productivity. Develop social nets and mobilize investments by strengthening livelihood training, job creation, and reduction in the work burden of women whilst increasing income.

4) Develop Rural Markets

Develop a rural marketing system for agricultural products and a financing scheme that will prioritize investments in low-income and poor communities to promote poverty reduction and hunger eradication. This helps to catch up with the development level of Mindanao, and eventually with the Philippine national level. Encourage various economic sectors to underwrite contracts with farmers for the marketing of agricultural and forestry products, both local and for export. Strengthen the direction of barangay economy development towards added value on crops and craft diversification, increasing the share of industry and services while decreasing the level of marketing of raw agro-industrial products. It is imperative that access infrastructure in barangays, particularly roads, electricity supply systems, water supply system, health clinics, should be given priority attention and investment for a more holistic approach towards improving the overall conditions of the CAAM barangays.

5) Improve the quality of CAAM’s Human Resource Pool

Use the potential of the youth, IDPs and local communities and IPs. Invest in education and training, and provide vocational courses, livelihood training and enrichment especially at the community level in order to develop a highly skilled labor force for the whole of CAAM and Mindanao. Accelerate vocational training which are closely linked with CAAM needs, with the end goal of creating more jobs, developing small and medium scale handicraft industries and other potential rural industries.

6) Develop culture in synchrony with socio-economic growth

Enhance the information and culture network by the preservation of cultural artifacts and developing culture-model villages to enhance eco-tourism. Develop eco-tourism tours to historical and cultural sites in poor districts in order to generate more income for poor people.

Preserve the cultural heritage areas and protect the environment. Capitalize on tourism as a key economic activity within CAAM by strongly developing Marawi being one of the Tri-Polar Growth Centers. Marawi City is known for its richness of cultural collection and social research in Mindanao thus making it a vital hub for cultural information and education within CAAM.

Invest in the construction of tourist and recreational facilities such as holiday resorts and take advantage of the presence of indigenous communities. Develop CAAs into tourist attractions that should complement other tourist spots inside and outside the regions while at the same time aim to establish clear intra-CAAM and inter-regional tourist routes.

Invest in tourism developments with thematic models such as ecological tourism, medical tourism, Halal tourism, agri tourism, health and spa tourism, cultural and historical tourism, among others, with the view of preserving natural resources and cultural values and contributing to hunger elimination and poverty reduction, especially in Indigenous peoples' regions.

7) Improve Indigenous Peoples (IPs) Quality of Life

Build the capacity of IPs to upgrade their living conditions in accordance with their cultural tradition and capitalize on the potentials of their traditional handicrafts, promotion of organic farming, transfer of technology, and diversification of industries. Provide capacity building and training to include training of staff for IPs, IDPs and other ethnic groups; increase people's awareness on preservation and promotion of cultural values and traditions. Uphold the culture of indigenous groups, advocate indigenous rights, traditions, beliefs, practices and artifacts, inculcate respect and tolerance for cultural differences and uniqueness and find common ground for cooperation and unity amidst cultural diversity.

4.2.4.3 Infrastructure Sector

Infrastructure development shall provide adequate provision, rehabilitation, expansion and upgraded crucial facilities for economic utilities such as water supply systems, electrification and telecommunications and administrative support services for the attainment of the SEDP goals.

(1) Goals and Objectives

- To prioritize the construction and rehabilitation of farm-to-market roads in the rural areas.
- To construct and rehabilitate roads and bridges connecting rural areas to the centers.
- To facilitate proper planning and implementation of infrastructure development programs.
- To construct, expand or rehabilitate airport and seaport facilities and utilities.
- To provide a reliable and sufficient communication facility.
- To construct and rehabilitate irrigation projects.
- To develop potable water supply systems in all areas.
- To provide power supply in all areas.
- To construct and develop socialized housing for the internally displaced people and the homeless.

(2) Specific Strategies on Water Supply Subsector

1) Improve access within and to CAAM

Improving access within and to CAAs would entail the increase of investment for the upgrading of the road networks in the barangay and municipal levels; communication and farm-to-market transport systems (i.e. mailing services, facilities for the transporting/delivery of goods from the barangay to industrial and processing zones, markets, etc); and basic social services (i.e. schools, health centers, electrification, water supply system, etc.). These will create a driving force for any development processes in CAAM as it increases the access to farmers within CAAs and outward centers. To fast track the completion of construction and rehabilitation of municipal and provincial roads and other transport related infrastructures to complement the improvement of barangay transport facilities; establishment of market facilities complete with post harvest facilities (i.e., warehouse, dryers, rice/corn mills, etc.). The provision of these facilities will minimize harvest losses and increase the income of farmers. The overall impact will result in the reduction of development gaps between CAAM and the rest of Mindanao.

2) Ensure Environmental Compliance

Strict enforcement of environmental compliance is crucial to the preservation and development of natural resources. The Philippine Government environmental laws mandate that “all 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)” Presidential Decree No. 1586 (1978). EIA is the preliminary analysis of 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. This is to ensure that the impacts depending on scale, location and extent can be predetermined and mitigation measures installed. As well as complying with the law, all projects must maintain environmentally friendly practices in their planning, implementation, monitoring and evaluation stages. For all construction works, environmental ethics such as minimizing tree cutting, protecting disturbed soils, minimizing use of heavy machinery and using soil stability structures need to be applied. As soil erosion is a core environmental problem in CAAs, runoff from construction sites needs to be minimized.

(3) Specific Strategies on Water Supply Subsector

1) Improve access to potable Water Supply

Provide safe and potable water to communities, and ensure equitable distribution of potable water, especially prioritizing the water needs of the poorest barangays and remote areas in CAAM. Upgrade to Level III all the water supply connections in urban households.

2) Water and Sanitation

Promote good hygiene and improve sanitation by emphasizing the importance of water supply in reducing morbidity and mortality. Increase access to safe water through various methods and access to latrines both at home and in school to reinforce health sanitation and education among students.

(4) Specific Strategies in the Power and Energy Subsector

1) Improve access to reliable supply of energy

Increase electrification rate in CAAM barangays as well as households to meet the growing demands for electricity.

2) Tap and Promote potential New and Renewable Energy resources (NREs)

Prioritize the development potentials of NREs such as wind, solar, ocean, mini-hydro and biomass energy sources. Its potential and availability is largely influenced by local and regional conditions. Promote greater utilization of cost effective NREs in remote areas given the lack of access to regular electricity sources.

(5) Key Targets in the Infrastructure Sector

1) Water Supply

- Provide water supply connection (Levels II and III) to 92 percent of households in CAAM.
- Prioritize provision of water supply system in municipalities within the provinces of Zamboanga del Sur and Basilan.

2) Power and Energy

- To achieve the Mindanao level: complete 95% barangay electrification and 57% of households in CAAM energized.
- To achieve the Philippine level: complete 98% energized barangays and 70% of CAAM households being energized.
- Prioritize electrification of barangays within the provinces of Lanao del Norte and Maguindanao.
- Tap new and renewable energy (NRE) resource capacity especially in remote areas such as in the municipalities of Lanao del Sur and North Cotabato.

4.2.4.4 Environment Sector

This sector directly involves environmental conservation for the protection and restoration of the environment of CAAM. Among the various environmental issues that CAAM are struggling with, SEDP focuses on the three most critical issues; 1) wetland/forest/coastal conservation and protection, 2) flood control and 3) waste management. Prospective projects in wetland/forest/coastal conservation include a wide range of issues such as protected area management, biodiversity conservation, protection/restoration of mangroves, river basin and watershed management and agro-forestry development. All of them are necessary for the environmental conservation of CAAs. For flood control, long-term solutions are reforestation or massive tree planting projects and land use improvement for preventing siltation and sedimentation; short-term solutions are; the installation of river side protection and dredging of riverbeds. For waste management, community level solid waste management using an Ecological Solid Waste Management approach should be pursued.

(1) Goal and Objectives

- To advocate climate change awareness.
- To preserve and maintain the integrity of the environment.
- To ensure proper utilization of the natural resources.
- To prevent the amplification of the effects of natural disasters.
- To protect the forest, lowland, urban, coastal and freshwater ecosystems.
- To maintain the biodiversity and uphold conservation efforts.

(2) General Strategies

1) Strengthen Institutional Capacity for Policy Implementation and Law Enforcement

To sustain environmental quality, it is necessary to strengthen the institutional capacities of bodies concerned with policy implementation and law enforcement. Industrial activities can be controlled by using legislative measures, rigid inspection and monitoring utilizing the PEISS mechanism. The institutional capacity of government institutions for inspection, monitoring and giving technical advice to industries needs to be enhanced. Government institutions

concerned with environmental conservation need to be fully knowledgeable in environmental laws and regulations. They should also understand that the Environmental Compliance Certificate (ECC) is neither a permit nor a license for a development project, but a tool to mitigate the impact of the project by addressing various issues for environmental consideration through EIA processes. Therefore, it should be included in the SEDP Framework to strengthen the LGU's capacity to prevent environmentally inappropriate development projects or activities not only within CAAM but also in the vicinity of CAAM.

2) Improve Forest Resource

Forest destruction and degradation are key environmental problems in SEDP, since forests are related to most of the other environmental issues such as soil erosion, landslides, flooding and destruction of costal environment. Therefore, activities to improve forest resource are core efforts for environmental conservation in CAAs. SEDP will promote replanting of forest trees or reforestation projects, plantation farms, and other forest related activities such as plant nursery development. These are key activities which are very relevant to watershed management for the conservation of water resource and flood control. For the agricultural sector, the introduction of agro-forestry is a critical activity that needs to be supported by the SEDP.

3) Improve Solid Waste Management in Community Level

Solid waste management is one of the central issues for maintaining a healthy and a quality living environment, especially at barangay level. For barangay level solid waste management, GRP introduced "Ecological Solid Waste Management" (Republic Act 9003), aimed at preventing any waste management activities that are harmful to the environment. Compliance with the guidelines for segregation of solid waste at source, during transporting, in storage, during processing, in treatment and in disposal are key mandatory steps. Other sanitation projects, including infrastructure development, such as garbage pit and dump sites are also important. To enhance garbage collection and proper disposal, LGUs must provide waste disposal facilities like garbage panel, garbage truck, receptacles, and other solid waste management equipment. For waste liquid management, the formulation of sewerage and drainage systems is an important task.

4) Strengthen Flood Control Capacity

Mindanao is not considered as being highly vulnerable to typhoons but experiences problems of heavy flooding associated with heavy rains. As discussed earlier in this report, it has been identified that sedimentation and siltation are major problems of flooding. Sedimentation and siltation do not have short term solutions, since the issue is related to forest destruction and inappropriate land use in uplands. For long term measures, projects related to plantation, forest rehabilitation and land use improvement are key activities for flood control. Improvement of

land use practices for logging, farming and construction, can prevent rapid soil erosion. Another issue related to sedimentation is the legal and jurisdiction aspects in land use. Institutional capacity in monitoring and inspection, to enforce the laws, needs to be improved. Coordination and communication between GRP, LGU and the commercial sector are important for better land use practices.

For short term urgent measures to prevent severe flood, rerouting of the present flow of rivers and channels to control water flow into town areas, dredging around the mouth of the river, construction of flood protection dikes etc. can be implemented. Some of the projects have already been recommended by the government task force and are under implementation.

5) Promote and Implement Community-based Integrated Coastal Resource Management (ICRM)

Coastal resources although potentially rich and productive are declining and under threat due to human activities. To mitigate inappropriate fishing activities, enhance monitoring and the inspection abilities of the concerned public institutions, increase implementation of community based coastal resource management to transfer the scale of responsibility to the local level and increase the "ownership" of responsibility while ensuring compliance with the rules.

Promote basic ICRM practices such as adaptive planning and budgeting, municipal water zoning, law enforcement, management of foreshores, beaches, and mangroves, pollution control and environmental management and licensing of resource use. Conduct participatory coastal resource assessment in all water bodies of CAAM and scientific assessments in selected sites of high biodiversity. Updated municipal coastal database and compile a national coastal resources database. Integrate ICRM plans into the overall integrated municipal planning process especially for coastal municipalities. Reforest and rehabilitate denuded watersheds. Organize local groups to manage local fisheries and aquatic resources, marine watch teams, and NGOs. Increase the training on participatory enforcement mechanisms for fisheries laws and regulations and provide basic equipment and facilities.

To curb destructive methods of fishing and encourage a positive attitude, there is a need to introduce sustainable approaches through environmental education and campaigns. Restoration and protection of mangroves are addressed through plantation and mangrove nursery development. Coastal environmental sanitation is also vulnerable to improper domestic waste disposal from households, which need to be corrected and controlled by supporting waste management programs in coastal region.

4.2.4.5 Local Governance and Administration

Programs, projects and activities under the Local governance and administration sector aims to support human resource and institutional development of BDA, people's organizations and community based organizations and other stakeholders, local governments and line agencies towards empowering stakeholders. The capacity building needs of the institutions and their human resources will be assessed and appropriate strategies developed. People and groups will be trained in various aspects of development administration to increase participation in decision making especially at the local level.

(1) Goal and Objectives

- Strengthen local governance and institutional capacities for planning and implementation of development projects;
- Ensure stakeholder empowerment through capacity development
- Increase community participation through regular consultation and participation among constituents particularly at the grassroots or barangays;
- Improve fiscal management and enhance capacities in legislation, policy formulation and judiciary;
- Improve planning, implementation and monitoring and evaluation of programs and projects;
- Encourage cooperation between and among LGUs; and promote public-private partnership;
- Promote a culture of peace by embracing peace building as a strategy.

(2) Key Strategies

1) Promote Peace Building as a Strategy and Outcome

These efforts will entail an all embracing peace education and advocacy towards conflict prevention and resolution, community-based programs for public safety and order as well as anti-criminality. At the same time, it also includes sustainable peace-building initiatives through cooperation at the macro level to demonstrate the sincerity and political good will of all parties involved.

2) Increase Capacity and Capability of Stakeholders

Involve People's Organization and the Civil Society in SEDP. Capacitate independent NGOs and POs enabling increased opportunities for communities and diverse cultural groups to interact academically with the government at all levels. Conduct workshops and training for NGOs and POs on the significance of the projects to be undertaken including type, peace analysis, fiscal management, legislation, policy formulation and judiciary aspects. The technical aspects such as planning, plan implementation and monitoring and evaluation or

programs and projects should also be a component of the training module.

3) Strengthen the Institutional and Management Capability of BDA

Improve effectiveness of the organization through better understanding of the organization's culture and ensuring a culturally sensitive style of management. Each organization has its own culture influenced by the socio-cultural aspect and its environment. As such, there is a need to improve the capacity of the members of the organization through enhanced training on management, increased administrative skills and empowerment to ensure higher involvement in decision making processes.

Components of the BDA Capacity Development may include, but not limited to, the following components:

- Strengthening the management capability of BDA
- Establishing and improving its financial management system
- Ensuring a sustainable funding mechanism
- Increasing human resource capability and skills enhancement
- Linking and building networks

4) Include Capacity Building as a Central Component in Project Implementation

Ensure that programs and projects are implemented with a complementary capacity building and training component for effective and efficient project management, monitoring and evaluation of progress and mitigating problems of implementation, and undertaking impact assessments.

5) Promote a Culture of Peace and Conflict Transformation

Increase awareness and peace advocacy as well as strengthen information dissemination by developing a public education campaign for the CAAM. The education campaign should highlight various peace strategies, and the continuing need to build peace in the communities. Promote continuous research and dissemination of research results relevant to progressive development and peace initiatives. Thematic issues identifying the state of conflict and consequences, the various occurrences of conflicts or tensions between peoples, NGOs and national or international agencies and work towards mediation and resolution of these conflicts and tensions, are areas of importance to research.

6) Promote Partnership towards Achieving Human Security Paradigm

Strengthen coordination and coherence with other external participants (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 participants with priorities being identified by the various stakeholders at the community level. Promote institutional links between and amongst stakeholders and appeal towards active participation of a multi-stakeholder coordinating body which includes the Bangsamoro Development Authority (BDA), POs, NGOs and other civil society groups, government line agencies like DENR, DAR, BFAR, DOST and religious leaders, elders and other traditional representatives and the neutral presence of foreign agencies such as the International Monitoring Team (IMT) and international NGO's.

7) Promote Neutral and Bias-Free Policies

Promote more community driven development policies and coherent practices in fields beyond traditional development assistance that will have major impacts on the prospects for development of CAAM, participative community approaches, and peace-building initiatives.

8) Create CAAM Human Security Framework adhering to a Culture of Peace

Create a CAAM peace strategy that builds from the current initiatives in the community, and at national levels. This would involve bringing together the stakeholders identified in the CAAM, and other sectors, to allow them to share their experiences and visions and to put together a peace and development program.

9) Advocate the Integration of SEDP-CAAM

Government (and major donor partners) should integrate JICA SEDP-CAAM into a national planning, coordination, strategy and policy development body. Economic reform, in particular, needs to be fully supportive of development and peace issues.

10) Support Human Resource and Institutional Development

It is important that the governance and political settings are prepared and equipped with the appropriate management background, skills and facilities. Major activities will include: capacity development to ensure stakeholder empowerment, institutional capacity building of local government units, and organizations as well as capacitating the NGOs, POs and CBOs as partners in the implementation of development projects. This is empowering the whole community sectors to participate in planning and implementing their respective development plans; improve the system of transparency and accountability. To prepare them for active participation, capacity building in the following areas should be conducted: planning, barangay data gathering related to profiling of needs, monitoring and evaluation, lead regular consultations particularly in peace building activities like conflict resolution, and approved local resolutions/budget for the construction of social, economic, infrastructure, environment, and capability building for barangay officials.

(3) Key Targets

To improve the economic development, through industrial enterprise development (facilitating the establishment and/or development of enterprises, business and legal counseling, assistance for access to financial markets) and agriculture development (small scale agriculture infrastructure, support to agriculture research and training, regrouping and marketing);

- To encourage the rehabilitation of natural resource sites, through preservation of historic and archeological sites, and natural sites (undertaking small works and training of administration) and capacity building and training of human resources;
- To facilitate the rehabilitation of human resources and social integration, through professional training and economic integration of the youth (technical training, supporting resource center for youth placement, literacy) and economic integration of displaced and disbanded armed groups (professional training, youth reconciliation, reintegration of militias);
- To ensure the strengthening of civil society organizations through supporting the creation of new CBOs, NGOs and cooperatives, training, and networking;
- To strengthen the local government structure through training and capacity building, networking and coordination, program development, and the elaboration of sustainable income generating strategies for municipal and barangay services and resource mobilization;
- To mobilize resources through realization of technical studies, GIS and database systems, and information and communication technologies; project preparation and implementation of a resource mobilization strategy aiming at attracting national and international private funds, and setting up of program information and communication strategy to assist in the marketing of the program aiming at disseminating informative and quantitative research campaigns to promote the region.

4.3 SEDP TIME FRAME FOR THE PRIORITIZED SECTORS AND SUBSECTORS

The time horizon of the SEDP is 15 years, from 2009 to 2023. The Immediate Term Plan has a time frame of 3 years, Short Term Plan is 8 years; and Mid-Term Plan is 11 years. The scope of work plan per time frame is discussed below. The results of the Needs Assessment are then shown in Figure 4.3-1.

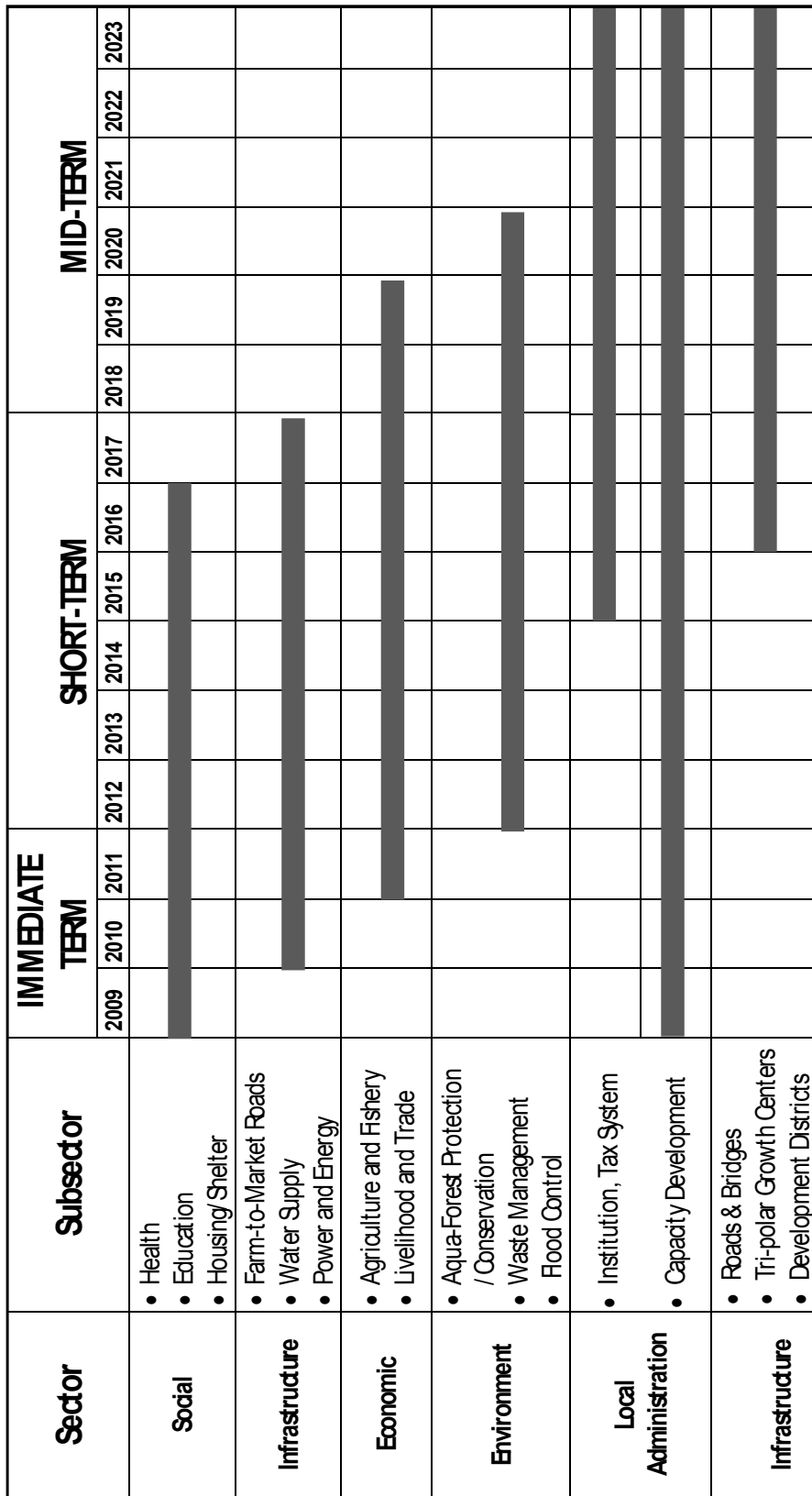


Figure 4.3-1 Socio-Economic Development Plan Time Frame

4.3.1 Immediate Term Plan (2009-2011)

The Immediate Term Plan is designed to cater to the most immediate needs of the Conflict-Affected Areas (CAAs). The findings of the IBNA and Barangay Profiling, which is recognized as the Community Action Plan (CAP), are the fundament of this phase. CAP prepares projects which can be completed within the first six years (2009-2014) of the SEDP. These projects are specific on the social and infrastructure sectors which include health, education, water supply, housing, farm to market roads and bridges.

The lack of infrastructure support facilities has delayed economic growth and development particularly in rural areas. Roads that link farms to markets have not been improved or maintained. Bridges destroyed by natural or man-made calamities have not been replaced. Farm to market roads are in urgent need of rehabilitation, improvement and construction. Thus, the highest priority should be for projects and programs that address the basic human needs.

The Immediate Term Plan Phase addresses the Basic Human Needs (BHN) to create a strong foundation for future development of the CAAs. This will address specific intervention in the following subsectors: water, health, education and electricity. To determine the objectives, strategies and targets are based on the barangay level social surveys such as the In-depth Barangay Needs Assessment and Barangay profiling. Thus, the social sector projects the needs of the CAAM communities and reflects their actual needs to promote a strong foundation.

Social projects should be small scale, executable and prioritize the most vulnerable areas and peoples. Thus, implementation is based on the barangay and the community and designed to cater for the most immediate needs of the CAAM. The aim is to raise the service levels of basic human needs to achieve the Mindanao level of development at the end of Short Term plan phase.

4.3.2 Short-Term Plan (2009-2017)

The Short-term Plan will run for nine years and will commence at the same time as the Immediate Term Plan in 2009 and be completed in 2017, the start of the Medium Term Plan Phase. The plan consists of implementing projects that address the economic and environment issues and challenges. The interventions in the Economic Sector include aquaculture and fisheries, livelihood, trade and industry and the environment sector interventions include strategies to: strengthen institutional capacity for policy implementation and law enforcement, raise public awareness for environmental conservation, improve forest resources, improve solid waste management at community levels, improve flood control capacity, and protection of the coastal environment.

It will continue to implement social infrastructure programs and projects to raise the service levels of CAAM to achieve a development at par with the Mindanao level.

The economic sector and subsectors strengthens livelihood in areas with high poverty incidence focusing on both urban and natural areas, and in particular flood control projects in central Mindanao to mitigate negative impacts of development as well as facilitate rebuilding of communities destroyed by the conflict in Mindanao. The implementation of the programs and projects shall target the Barangay, Municipal, and Provincial levels.

4.3.3 Medium Term Plan (2018-2023)

The Mid-Term Plan commences after the Action Plan. It is targeted to be implemented from 2018 to 2023. The phase contains strategies that will bring the necessary interventions for sustainable peace and development, in reducing the development gaps between the CAAs and Mindanao and eventually minimize the divide between CAAM and the Philippines. The aim is to encourage future economic development that would bring equal level of economic development of those non-CAAM communities and eventually work towards reaching the Philippine level of development.

The projects covered in this phase are deemed to be implementable within six years and centers on local administrations and medium scale infrastructure and the development of the Tri-Polar growth centers. The Tri-polar development centers will be composed of Metro-Kutawato, Pagadian City and Marawi City and is anticipated to be developed into a thriving and vibrant economy, a sound resource base with development corridors interconnecting the three centers linking them with the neighboring areas to bridge development to the rest of CAAM and to other potential development districts. This phase may include the creation of other development districts within CAAM and the expansion of the development centers to link CAAM with the rest of the country with the aim to eventually reach global competitiveness.

Other projects should cover the following sectors and subsectors: capacity building of local government and line agencies' officials and constituents to ensure broad based participation of the people in achieving CAAM development, to increase the knowledge of the population on existing legislative agenda and the institutionalization of reforms in the bureaucracy as well as enhancing values, orientation and skills acquisition as continuing mechanisms aimed at effecting transformation in local administration.

Furthermore, construction and rehabilitation of barangay centers, institutionalization of the tax system, the construction and rehabilitation of arterial roads and bridges and the formulation of the master plans for the development of the Tri-Polar Growth Centers and their links.

Programs and projects should target the municipal, regional, Mindanao level interventions by sectors.

4.4 SEDP IMPLEMENTATION ARRANGEMENT

4.4.1 Review and Approval

The implementation of the SEDP is one of the critical aspects of the planning process. Its success depends on the effectiveness and efficiency of the institutional machinery, the political will and the technical capability of the implementers, the adequacy and timelines of the financial support and assistance, and the full cooperation of the private sector.

It is essential to provide an enabling environment for legitimization of development plan by strengthening consensus building to unite key players in the public and private sector to adopt the Plan at all levels of development administration. Institutional processes and co-operation for integration of plans within the development agenda framework of possible partner institutions, agencies, and future coalition/alliances from both private and public sectors are working in ways that are mutually reinforcing and emphasize complementarities towards achieving peace and development in Mindanao.

4.4.2 Broad-based approach for approval and adoption

SEDP Legitimization involves outlining a broad based approach to consensus building that will enjoin key players of the public and private sector to ensure viability of the plans' implementation. This involves a three-stage process: 1) public information drives; 2) formal approval and adoption; and 3) integration of major plan proposals to planning and budgeting exercises of both government and non-government institutions.

a. Public information drives - Ownership and support of stakeholders can only be obtained if the people understand the objectives, content, and significance of the SEDP. For this purpose, copies of the final SEDP, both in the formal and in a more simple, popular format, should be distributed to national and local government agencies, local and international development organizations, non-governmental organizations (NGOs) and people's organizations (POs) to guide them in their decision making and investment programming.

b. Formal approval and adoption - Formal approval and adoption of the SEDP will be sought from all conflict affected areas in Mindanao (CAAM) covered by the projects. This will be achieved in public forums to be organized per region or per clusters of municipalities where key features of the SEDP will be presented. In these forums, joint resolutions will be passed to call for the adoption of the plan and implementation of the project proposals contained therein. In the event of signing of the resolutions presentation, approval and final

adoption should have complemented with plan implementation guidelines.

c. Integration in Planning and Investment Program - The resolutions will be forwarded to the Regional Development Councils (RDCs) in Mindanao. Upon RDC's endorsement of the plan it will be forwarded to National Economic Development Authority (NEDA), Mindanao Development Council (MEDCo), line agencies and donor institutions for consideration in their planning and programming exercises. Integration of the relevant plan proposals in the investment programs of conflict affected municipalities, individually, or in clusters, will also be advocated.

Indicative Financial Requirement – As the selection of projects and programs is not yet finalized, an indicative financing outline may be provided by cost estimation. At this time, however, it is difficult to quantify how much will be required and what is available in terms of financial resource mobilization. Co-financing and counter-parting of equity of other stakeholders may also be treated as development strategy and a means to augment financial requirement to implement the SEDP.

Financing of SEDP and its investment component shall be solicited from diverse sources, from both the public and private sectors in the Philippines and elsewhere. This may include support from the national government, regional government, and local government units as well as from international donor institutions and development partners such as the World Bank, Malaysian Technical Cooperation Programme (MTCP), Japan International Cooperation Agency (JICA), Islamic Development Bank (IDB), United Nations Development Program (UNDP) and Canadian International Development Agency (CIDA), among others. Past, ongoing and planned interventions have been funded by these institutions and organizations indicating their degree of interest and involvement. Support is expected to continue towards the realization of a regionally developed Mindanao. Development partners typically focus on various key sectors and result areas which include: agriculture, culture, education, empowerment, environment, governance, Halal industry, health, infrastructure, land conflict resolution, peace and peacekeeping, socio-economic development and technology transfer, among others.

d. Considering Regional Characteristics for Implementation - To operate SEDP, a comprehensive advocacy plan shall be developed by NEDA, BDA and other possible partners, as the plan covers over 13 provinces in the five administrative regions in Mindanao. The BDA shall ensure that the plan gains wide acceptance among the stakeholders taking account of the people's aspirations, cultural differences and commonalities and beliefs, and that each of the concerned parties will work towards their priorities in accordance with the achievement of the CAAM vision, mission and goals.

One basic undertaking should be the identification of complementary and supplementary strategies that will help strengthen sub regional cooperation in Mindanao, to include but not be limited to programs to strengthen social, ethnic and cultural integration and harmonization, with respect for the cultural diversity in Mindanao.

e. Institutional Development (ID) and Capacity Building - The main aim of SEDP implementation is to ensure the sustainability of the projects and programs, ensuring community participation and the project beneficiaries and the development partner institutions and other stakeholders communities are considered development participants to institute change as given in the vision and mission statement of the SEDP.

The Institutional Development should serve as a venue to help and strengthen capability building of implementing institutions and its lead partner agency in taking the lead of project implementation whilst in parallel organizing the strengthening and enhancement of the capability of project beneficiaries and the community.

The ID component of the SEDP shall ensure participatory processes in engaging project beneficiaries and implementers to plan, implement, monitor, and sustain project interventions and other development activities in a particular CAAM area. This is to ensure that the community or any part of the community will be able to operate, manage, and sustain the project interventions in the future.

(1) Principles for Institutional Development and Capacity Building

1) Need-based Interventions

The Institutional development component shall be in response to the identified needs based analysis based on a series of community appraisals, consultation activities and meetings. Critical factors to consider in the planning of ID interventions are the human and natural resources, the potential development partners and institutions in the locality, and the capability building plan for both the beneficiaries and project implementers.

2) Social Mobilization

The social mobilization of SEDP implementation should serve as a vehicle to participatory approaches and poverty alleviation programmes. This is where decentralization policies and programmes are realized by strengthening human and institutional resources development at the local level. Social mobilization allows development processes and participatory mechanisms unique to CAAM communities for the objective of achieving peace and development in Mindanao. Improved governance, empowered communities, and improved access to social and production services and efficiency in the use of locally available financial resources will help enhance opportunities for asset building and peace building measures by

the poorest communities in the CAAM.

a. Community Contribution and Counter-parting – This will promote shared responsibility through counter parting and equity contributions as part of sustainability mechanisms. This concept of shared responsibility ultimately promotes a sense of ownership in the implementation process of the ID component. Community contribution can be in the form of cash or in-kind such as land donation, labor, services and others that will be collectively identified and agreed upon by the community.

b. Strengthening Community participation and Volunteer Formation and Development – This involves the integration of leadership identification, development, and capability building, interventions within the project implementation and design of management and implementation plans of ID component activities.

c. Institutional Strengthening and Capacity Building - The capability building for the key stakeholders may involve people's organizations, non-government organizations and the civil society. This will focus on the provision of capacity building interventions designed to enhance their technical and management capacities in implementing projects and programs thereby increasing opportunities for communities and diverse cultural groups, to interact academically with the government at all levels. Conducting workshops and training for NGOs and POs on the significance of the projects to be undertaken including gender, peace analysis, fiscal management, legislation, policy formulation and judiciary aspects. The technical aspects such as planning, plan implementation and monitoring and evaluation or programs and projects is also a component of the training module.

3) Social Inclusion

All key participants in the ID component of the SEDP have specific responsibilities to deliver based on key targets. Social inclusion agenda focuses on the disadvantaged communities and marginalized groups such as women, children, elderly, Indigenous Peoples (IPs), and in the case of CAAM Internally Displaced Persons (IDPs). In particular, social inclusion agenda allows 1) integration of activities and strategies to address gender exclusion, 2) flexibility in the adoption of culturally attuned strategies, 3) flexibility in the adoption of strategies to address more specific forms of exclusion borne out of locality-specific conditions (i.e., conflict or conditions giving rise to IDPs).

4.4.3 Indicative Implementation Program

The success of SEDP implementation will depend on how effective and efficient all the stakeholders contribute to the over-all attainment of SEDP goals and objectives in realizing the socio-economic reconstruction and development of CAAM.

It must also be noted that it is an integral part of the development framework to address the cross-cutting issues and concerns and other peculiarities of communities belonging to the conflict affected areas. The SEDP implementation program aims to further advance the sense of ownership, social acceptability, integration, and development of support systems and partnerships between and among various key players and stakeholders as it adopts the Institutional Development and Capacity Building component.

As discussed in the preceding part of this chapter, the Immediate Term Plan shall commence starting 2009-2011 as the initial phase of plan implementation and shall continue until the end of Short Term plan phase in 2017. This is to ensure that development gaps on basic human needs shall be addressed and sustained toward the attainment of the seven-point goals for CAAM. It is within this context that the succeeding implementation program matrix shall only cover the Immediate Term Plan key targets up to Short Term Plan development targets. For future plan implementation of the Mid-Term Plan, it is expected that necessary replication of best practices in terms of actual implementation may be carried on, along with the macro development targets, under Mid-Term Plan (2018-2-23).

With the objective of complementing the development targets under the Immediate Term Plan and Short Term plan, an indicative implementation program is presented below for setting development milestones in the SEDP implementation. Program implementation and its components are based on the five SEDP guiding principles as discussed in the preceding part of this chapter – 1) Sustainable Development, 2) People Driven Approach, 3) Participatory Development, 4) Convergence of Strategies towards CAAM Reconstruction and Development, 5) Transparency in Local Governance.

The SEDP indicative implementation programs shall be comprised of specific components or activities which are linked to specific outcomes. This section focuses on implementing these components based on the prioritized sectors and subsectors covered by the Study.

4.4.4 Indicative Budget Summary for Immediate Term Plan

Specific projects are not presently listed and identified within SEDP. Based on the results of the participative and consultative exercises (i.e. Indepth Barangay Needs Assessment [IBNA] and Barangay Profiling, KII, Workshops), the Study was able to derive the specific urgent needs of each sector and subsector at the provincial, municipal and to a limited extent, at barangay levels.

To implement the Action, Short Term and Medium Term Plans, the result of this Study still require further comprehensive feasibility studies in each sector. At this point, only cost estimates of each project type are provided and itemized in Table 4.4-1 and more detailed

budgetary requirements and cost estimates per specific projects will be included in the Annex D.

Table 4.4-1 Budget Summary for SEDP Implementation

PROJECT TYPE	ACTUAL 2008 FIGURES (IN PHP PESO)	RANGE OF COST (IN PHP PESO)
Water Supply	1.96 M + 0.7M	2.0 ~ 5.0 M
Multi-purpose Building*	1.98 M, 2.35 M	2.4 M
School renovation and construction*	2.49M, 2.80 M	2.5 ~ 2.8 M
Solar dryer with warehouse*	2.49 M	2.5 M
Health Center	2.64 M	2.6 M
Barangay Road (conc pavement)	8.0 M	10M ~ 12M

*includes toilets with septic tank and shallow well

4.4.5 Implementation Challenges and Issues

4.4.5.1 Integration and Institutionalization

SEDP aims to complement rehabilitation and development investment plans pursued by the national and local governments and other institutions representing both public and private sectors. Implementation would entail decentralization and will empower citizens and local communities to bring the rehabilitation and development agenda in the CAAM beyond the life of a specific project. This is where Institutional Development (ID) framework is perceived of high importance to ensure relevant poverty alleviation programs and projects, improved local governance and natural resource management, and synergy of development efforts are all in the same development rehabilitation and development agenda in achieving peace and development in Mindanao.

4.4.5.2 Stakeholders Participation and Involvement

SEDP implementation is a vehicle towards pursuance of socio-economic reconstruction and development of CAAM. The challenge to converge social development efforts amidst organizational issues of dispersed interests, mutual commitment and inclusiveness are pursued. Action Plans translated into Immediate Term Plan, Mid-Term Plan, and Short-Term Plan call for a responsive and systematic way of coming up with management and implementation arrangement plans where roles and responsibilities of development partners, implementers, and host communities and beneficiaries are clearly defined in the course of actual programs and project implementation.

4.4.5.3 Financial Challenges

Inadequate financing is one of the challenges in SEDP implementation. To realize the SEDP, financial resources are definitely needed. However, there are many challenges on this aspect.

These include the limited nature of funds, the global financial crisis which will eventually result in a reduction of ODA from countries such as US, EU and Japan and refocusing of government spending priorities. Low price of oil in the world market will also reduce revenues of oil-rich countries and reduce the window to the Middle East.

(1) Limited Funds

There have been a lot of interventions in Mindanao, however, as the costs of developing the conflict affected and conflict prone areas are normally greater, the funds have never been enough and probably, never will be. Recurrent man-made calamities destroy established infrastructures that need rebuilding at higher cost due to inflation and other market factors.

(2) Reduction in ODA due to Global crisis

Another global event that has negative effect on the CAAM is the global financial crisis. This economic phenomenon caused by collapse of housing and credit markets in the United States will eventually lead to reduced tax collection for governments, reduced spending, and refocused spending. The effect may be felt within the next budgeting period and up to three more years thereafter.

(3) Depleting Fund sources from oil rich countries

As of writing, the governments of Saudi Arabia and Kuwait have invested for peace and development and infrastructure in Mindanao. However, fund sourcing from oil producing countries particularly in the Middle East will also be affected by the dramatic decrease in world oil prices, resulting to reduced government funds from oil revenues. The effect may be felt within the next budgeting period and up to three more years thereafter.

(4) GRP's spending priorities may also change

GRP's spending priorities are apt to change in the face of the global current economic recession. The GRP's financial stability is dependent on the Peso to US Dollar exchange rate and changes in the prevailing rates are expected to be significantly influenced by several global economic developments. One significant source for the expected reduction of Philippine currency reserves is the reduction of OFW (Overseas Filipino Workers) remittances brought about by economic recession in the countries of their employment. Other potential concerns may include the reduction in ODA funding/assistance; slowing down of the import and export trading and business activities both locally and internationally among others. Local revenues are expected to go down as there will be a yearly increase in unemployed population, the occurrence of armed conflict which remains to be a major concern for development; and the uncontrollable growing population contributing to an imbalanced distribution of basic services and access to development opportunities. These situations will determine the changes in the prioritization of development goals per sector and location. It will be a race for priority

against the decreasing budget or funds from both the government and ODA.

(5) Changing Preference of Donors and Organizations

As ODA funds will be limited, it is necessary to focus on projects perceived to immediately and address the needs of the communities in the CAAM based on the results of the Social Survey, IBNA, listing of needs and priorities by LGUs and Line Agencies. The projects also need to emphasize the effects of peace and development in Mindanao on the national and international scene to give it priority for development over other countries who are also experiencing similar conditions. The rich resources of Mindanao are more than sufficient to bring about poverty alleviation and the consolidation of peace and development particularly in CAAM.