

Republic of the Philippines
Development Study on Local Industry
Promotion in ARMM

Final Report

November 2011

JAPAN INTERNATIONAL COOPERATION AGENCY

IC NET LIMITED

EID
JR
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Preface

In response to the request of the Government of the Republic of the Philippines, the Government of Japan decided to conduct the ‘Development Study on Local Industry Promotion in ARMM’ and entrusted the Study to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a Study Team headed by Dr. Hiroaki Terashima of IC Net Co., Ltd. from March 31, 2010 to October 31, 2011.

The Study Team held discussions with the officials of Department of Trade and Industry, Department of Agriculture and Fishery, Office of the Regional Governor-ARMM and other officials of the ARMM Government as well as the National Government, and conducted field surveys, data gathering and analysis, selection of potential local industries, formulation of the strategy and action plans for local industry promotion and workshops/seminars for technology transfer. Upon returning Japan, the Study Team prepared this final report to summarize the results of the Study.

I hope that this report will contribute to the promotion of proposed local industries for development of ARMM region and to the enhancement of friendly relationship between two countries.

Finally, I wish to express my sincere appreciation to the officials concerned to the Government of the Republic of the Philippines for their close cooperation and help extended to this study.

November 2011

Kiyofumi Konishi
Director General

Economic Infrastructure Department
Japan International Cooperation Agency (JICA)

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Abbreviations and Acronyms

A2F	Access to Finance
A2M	Access to Markets
AAIIBP	Al-Amanah Islamic Investment Bank of the Philippines
AAGR	Average Annual Growth Rate
ABC	ARMM Business Council
ACDI/VOCA	Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance
ACPC	Agriculture Credit Policy Corporation
ACSP	Agricultural Credit Support Project
ADB	Asian Development Bank
AERA	ARMM Regional Executive Legislative Agenda
AFMA	Agriculture and Fisheries Modernization Act
AGFP	Agricultural Guarantee Fund Pool
AIM	Asian Institute of Management
AMF	Agri-Fishery Microfinance
API	Agumil Philippines Incorporated
APGR	Annual Population Growth Rate
APL	Adaptable Program Loan
ARB	Agrarian Reform Beneficiary
ARD	Assistant Regional Director
ARDEXCOR	Alip River Development and Export Corporation
ARELA	ARMM Regional Executive Legislative Agenda
ARG	ARMM Regional Government
ARMM	Autonomous Region in Muslim Mindanao
ARMM-HIDM	ARMM Halal Industry Development Management
ARMMIARC	ARMM Integrated Agricultural Research Center
ASA	Association of Social Advancement
ASAP	ARMM Strategic Action Plan for 2010-2011
ASEAN	Association of South East Asian Nations
ATI	Agricultural Training Institute
ATM	Automated Teller Machine
BAS	Bureau of Agricultural Statistics
BAS-AMSAD	Bureau of Agricultural Statistics – Agricultural Marketing Statistics Analysis Division
BAT	Barangay Agricultural Technologist
BCDA	Bases Conversion and Development Authority
BDA	Bangsamoro Development Agency
BDC	Business Development Center
BDS	Business Development Service
BE	Business Environment

BFAR	Bureau of Fisheries and Aquatic Resources
BIMP-EAGA	Brunei Darussalam Indonesia Malaysia Philippines East ASEAN Growth Area
BMBE Act	Barangay Micro Business Enterprise Act
BMSMED	Bureau of Micro Small and Medium Enterprise Development
BNR	Business Names Registration
BOI	Board of Investment of the Philippines
BPO	Business Process Outsourcing
BSME	Bureau of Small and Medium Enterprise Development
BSO	Business Support Organization
BUAD	Datu Blo Umpar Adiong
BUSCO	Bukidnon Sugar Company
CA	Capital Assistance
CAAM	Conflict-Affected Areas in Mindanao
CAAP	Civil Aviation Authority of the Philippines
CAGR	Compound Annual Growth Rate
CALABARZON	CAvite, LAguna, BAtangas, Rizal, and QueZON
CAMSU	College of Agriculture Mindanao State University
CAPR	Cooperative Annual Performance Report
CAR	Cordillera Administrative Region
CARD	Center for Agriculture Rural Development
CARP	Comprehensive Agrarian Reform Program
CBU	Capital Build-Up
CCB	Cooperative Bank of Cotabato
CCT	Conditional Cash Transfer
CDA	Cooperative Development Authority
CDD	Community Development Department
CDP	Comprehensive Development Plan
CDP-ELA	Comprehensive Development Plan - Executive Legislative Agenda
CDS	Cooperative Development Strategist
CED	Community Economic Development
CEZA	Cagayan Economic Zone Authority
CGS	Cooperative of Good Standing
CICOT	Central Islamic Committee of Thailand
CIDA	Canadian International Development Agency
CITC	Cottage Industry and Training Center
CMDI	CARD-MRI Development Institute
COFBreP	Comprehensive Outreach and Fish Breeding Project
CPA	Cebu Ports Authority
CPB	Cacao Pod Borer
CPO	Crude Palm Oil
CRS	Catholic Relief Service
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
CUES	Credit Union Empowerment and Strengthening

CY	Calendar Year
DA	Department of Agriculture
DAF	Department of Agriculture and Fishery
DAR	Department of Agrarian Reform
DASUDECO	Davao Sugar Central Corporation
DBP	Development Bank of the Philippines
DENR	Department of Environment and Natural Resources
DICCEP	Davao Industry Cluster Capacity Enhancement Project
DILG	Department of Interior and Local Government
DOH	Department of Health
DOLE	Department of Labor and Employment
DOS	Datu Odin Sinsuat
DOST	Department of Science and Technology
DOTC	Department of Transportation and Communications
DPWH	Department of Public Works and Highways
DTI	Department of Trade and Industry
ECC	Environmental Compliance Certificate
EO	Executive Order
EPRA	Economic Policy Reform and Advocacy
ES	Executive Secretary
EYEOY	Ernest & Young Entrepreneur of the Year
FAO	Food and Agriculture Organization
FDA	Food and Drug Administration
FDC	Food Development Center
FDI	Foreign Direct Investment
FFH	Freedom from Hunger
FI	Financial Institution
FIDA	Fiber Industry Development Authority
FISH	Fisheries Improvement for Sustainable Harvest
FFS	Field Farmer School
FGD	Focus Group Discussion
FMR	Farm to Market Road
FOB	Freight On Board
FUMBWMPC	Federation of United Mindanawan Bangsamoro Women Multi-Purpose Cooperative
GAA	General Appropriations Act
GAP	Good Agricultural Practice
GEM	Growth with Equity in Mindanao
GI	Government Interventions
GIZ	Gesellschaft für Internationale Zusammenarbeit
GMA	Ginintuang Masaganang Ani
GMC	Granexport Manufacturing Corporation
GMP	1. Gross Marginal Product 2. Good Manufacturing Practice
GOP	Government of the Philippines

GRDP	Gross Regional Domestic Product
GRP	Government of the Republic of the Philippines
GRT	Gross Tonnages
GSC	General Santos City
GSPI	Global Steel Philippines Incorporation
GTZ	Gesellschaft für Technishe Zusammenarbeit
GVA	Gross Value Added
HACCP	Hazard Analysis and Critical Control Point
HCDP	Human Capacity Development Project
HDI	Philippine Human Development Index
HDPE	High Density Polyethylene
HID-IA TWG	Halal Industry Development – Inter-Agency Technical Working Group
HP	Horse Power
HVCC	High Value Commercial Crops
ICCI	Islamic Chamber of Commerce and Industry
ICCO	International Cocoa Organization
ICT	Information and Communication Technology
IDC	Iranun Development Council
ID/OS	Institution Development Organization Strengthening
IDP	Internally Displaced People
IFOAM	International Federation of Organic Agriculture Movement
IHI	International Halal Integrity
IPA	Investment Promotion Agency
IPHO	Integrated Provincial Health Office
IRA	Iranun Rescue Assistance
ISO	International Organization for Standardization
JAKIM	Jabatan Kemajuan Islam Malaysia
JBIC	Japan Bank for International Cooperation
J-BIRD	Japan-Bangsamoro Initiatives for Reconstruction and Development
JICA	Japan International Cooperation Agency
JPY	Japanese Yen
KCCDFI	KFI Center for Community Development Foundation, Inc.
KFI	Kadtuntaya Foundation Inc.
LARBECO	Lamitan Reform Beneficiaries Cooperative
LBP	Land Bank of the Philippines
LCE	Local Chief Executive
LDS	Lanao del Sur
LECA	Local Economy and Competitive Assessment
LED	Local Economic Development
LFI	Local Financial Institution
LGPMS	Local Governance Performance Management System
LGSPA	Local Government Support Program in ARMM
LGU	Local Government Unit
LPM	Large-size Planting Material
LRED	Local and Regional Economic Development

LTO	License to Operate
MABS	Microenterprise Access to Baking Services
MAO	Municipal Agricultural Officer
MARADECA	Maranao People Development Centre Inc.
MARINA	Marine Industry Authority
MASS-PECC	Mindanao Alliance of Self-Help Societies Southern Philippines Education Cooperative Center
MBUSSP	Mindanao Basic Urban Services
MBTLC	Mindanao Baptist Rural Life
MC	Motorcycle
MDC	Municipal Development Council
ME	Micro Entrepreneur
MEDCO	Mindanao Economic Development Council
MFC	Municipal Fisheries Coordinator
MFFTC	Mindanao Freshwater Fisheries Technology Center
MFI	Micro Finance Institution
MFO	Major Focus Output
MICC	Matling Industrial and Commercial Corporation
MICRA	Microfinance Innovation Center for Resource and Alternatives
MILF	Moro Islamic Liberation Front
MinDA	Mindanao Development Authority
MKDA	Metro Kutawato Development Alliance
MMC	Mindanao Microfinance Council
MMHCBI	Muslim Mindanao Halal Certification Board Inc.
MMIP	Malitubog Maridagao Irrigation Project
MNLF	Moro National Liberation Front
MOOE	Maintenance and Other Operating Expenses
MPA	Multi-purpose Cooperatives in Agriculture
MPC	Multi-Purpose Cooperative
MPDC	Municipal Planning and Development Coordinator
MPN	Multi-purpose Cooperatives not involved in Agriculture
MRDP	Mindanao Rural Development Project
MRI	Maintenance, Rehabilitation, and Improvement
MSDF	Mindanao Strategic Development Framework
MSME	Micro Small Medium Enterprise
MSMED	Micro Small Medium Enterprise Development
MT	Metric Ton
MTPDP	Medium Term Philippine Development Plan
MTRDIP	Medium Term Regional Development Investment Plan
MUFTI	Muslim Upliftment Foundation
MVC	Mabuhay Vinyl Corporation
NAPC	National Anti-Poverty Commission
NAPOCOR	National Power Corporation
NCMF	National Commission of Muslim Filipinos
NCR	National Capital Region

NEDA	National Economic Development Authority
NGO	Non-Government Organization
NIA	National Irrigation Administration
NILE	Network Investment for Local Executives
NLDC	National Livelihood Development Corporation
NMIS	National Meat Inspection Service
NOAB	National Organic Agricultural Board
NPK	Nitrogen Phosphorus Potassium
NR	Natural Rubber
NSC	National Steel Corporation
NSCB	National Statistics Coordination Board
NSO	National Statistics Office
NWTFI	Negros Women for Tomorrow Foundation, Inc.
ODA	Overseas Development Aid
OFW	Overseas Filipino Workers
OIC	1. Organization of Islamic Conference 2. Officer in Charge
OJT	On-the-Job Training
OMA	Office on Muslim Affairs
OPAPP	Office of the Presidential Adviser on the Peace Process
OTOP	One Town One Product
OVOP	One Village One Product
PAGASA	Philippine Atmospheric, Geophysical & Astronomical Services Administration
PALMA	Pigkawayan, Alamada, Libungan, Midsayap and Aleosan
P&E	Productivity and Efficiency
PCA	Philippine Coconut Authority
PCC	Philippine Carabao Center
PCFC	People's Credit and Finance Corporation
PCM	Project Cycle Management
PDC	Peace and Development Committee
PDO	Port District Office
PDP	Philippine Development Plan
PE	Personnel Emolument
PFC	Pilmico Food Corporation
PFDA	Philippine Fisheries Development Authority
PFO	Provincial Fisheries Officer
PHDR	Philippine Human Development Report
PHP/Php	Philippine Peso
PICRI	Philippines Industrial Crops Research Institute
PIPP	Philippine Investment Promotion Plan
PKCO	Palm Kernel Crude Oil
PLGU	Provincial Local Government Unit
PLO	Provincial Livestock Office
PMO	Project Management Office

PNP	Philippine National Police
PNR	Philippine National Railway
PNS	Philippine National Standard
PO	People's Organization
PPA	Philippine Port Authority
PPDO	Provincial Planning and Development Office
PPP	Public and Private Partnership
PPSLI	Potential Products Study for Local Industry
PRCRTC	Philippine Root Crops Research and Training Center
PSC	Project Steering Committee
QCC	Quality Control Committee
R.A.	Republic Act
RBOI	Regional Board of Investment
RDP	Regional Development Plan
REDC	Regional Economic Development Committee
REDPB	Regional Economic and Development Planning Board
REZA	Regional Economic Zone Act
RLA	Regional Legislative Assembly
ROA	Return on Assets
RODG	DTI-Regional Operations and Development Group
RORO	Roll-On / Roll-Off
ROSCA	Rotating Savings and Credit Association
RPDO	Regional Planning and Development Office
RPPF	Regional Physical Framework Plan
RPMA	Regional Ports Management Authority
RRUC	Regional Reconciliation and Unification Commission
RRTS	Road Roll-On/Roll-Off Terminal System
SACCO	Savings and Credit Cooperative
SAMASA	Strategic Action of Mass-based Alliances for Social and Agro-Industrial Progress
SB	Sangunian Bayan (=Municipal Council)
SBC	Small Business Corporation
SBMA	Subic Bay Metropolitan Authority
SCA	Savings and Credit Association
SCARBIDC	Santa Clara Agrarian Reform Beneficiaries Integrated Development Cooperative
SCFI	South Cotabato Foundation Inc.
SEC	Security Exchange Commission
SEDPI	Social Enterprise Development Partnerships, Inc.
SERD-CAAM	Socio-Economic Reconstruction and Development of Conflict Affected Areas in Mindanao
SFR	Small Fish Reservoir
SIAP	Seaweed Industry Association of the Philippines
SLAM	Southern Ligawasan Alliance of Municipalities
SMC-ICO	San Miguel Corporation – Iligan Coconut Oil

SME	Small and Medium Enterprise
SMED	Small to Medium Enterprise Development
SMEDSEP	Small and Medium Enterprise Development for Sustainable Employment Program
SOCCKSARGEN	South Cotabato, Cotabato, Sultan Kudarat, Sarangani and General Santos City
SPCU	Sulu Provincial Cooperative Union
SPDA	Southern Philippines Development Authority
SR	Synthetic Rubber
SUC	State University and Collages
SULONG	SME Unified Lending Opportunities for National Growth
SUV	Sports Utility Vehicle
SWOT	Strengths, Weakness, Opportunities, and Threats
TA	Technical Assistance
TALA	Tawi-Tawi Alliance of Local Authorities
TCEP	Target Commodity Expansion Project
TEU	Twelve Foot Equipment Unit
TESDA	Technical Education and Skills Development Authority
TMO	Terminal Management Office
TOT	Training of Trainers
TOYM	Ten Outstanding Young Men
TPFN	Triple P Farmers Nursery
TSKI	Taytay sa Kauswagan, Inc.
TWG	Technical Working Group
UCPB-CIIF	United Coconut Planters Bank- Coconut Industry Investment Fund
UN	United Nations
UNDP	United Nations Development Program
UNMDP	United Nations Multi-Donor Program
USAID	United States Agency for International Development
USD/US\$	United States Dollar
USDA	United States Department of Agriculture
USM	University of Southern Mindanao
UV	Utility Vehicle
VC	Value Chain
VHT	Vapour Heat Treatment
WBS	Work Breakdown Structure
WCF	World Cocoa Foundation
WOCCU	World Council of Credit Unions
ZSCMST	Zamboanga State Collage of Marine Science and Technology

Currency Equivalents

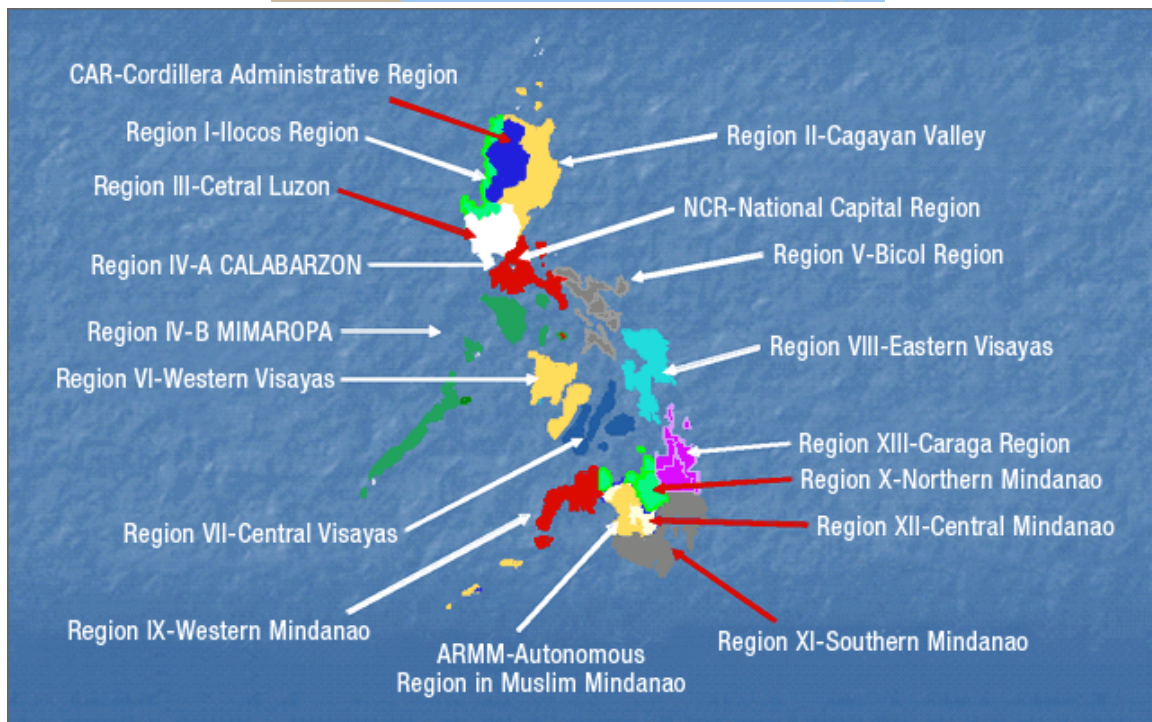
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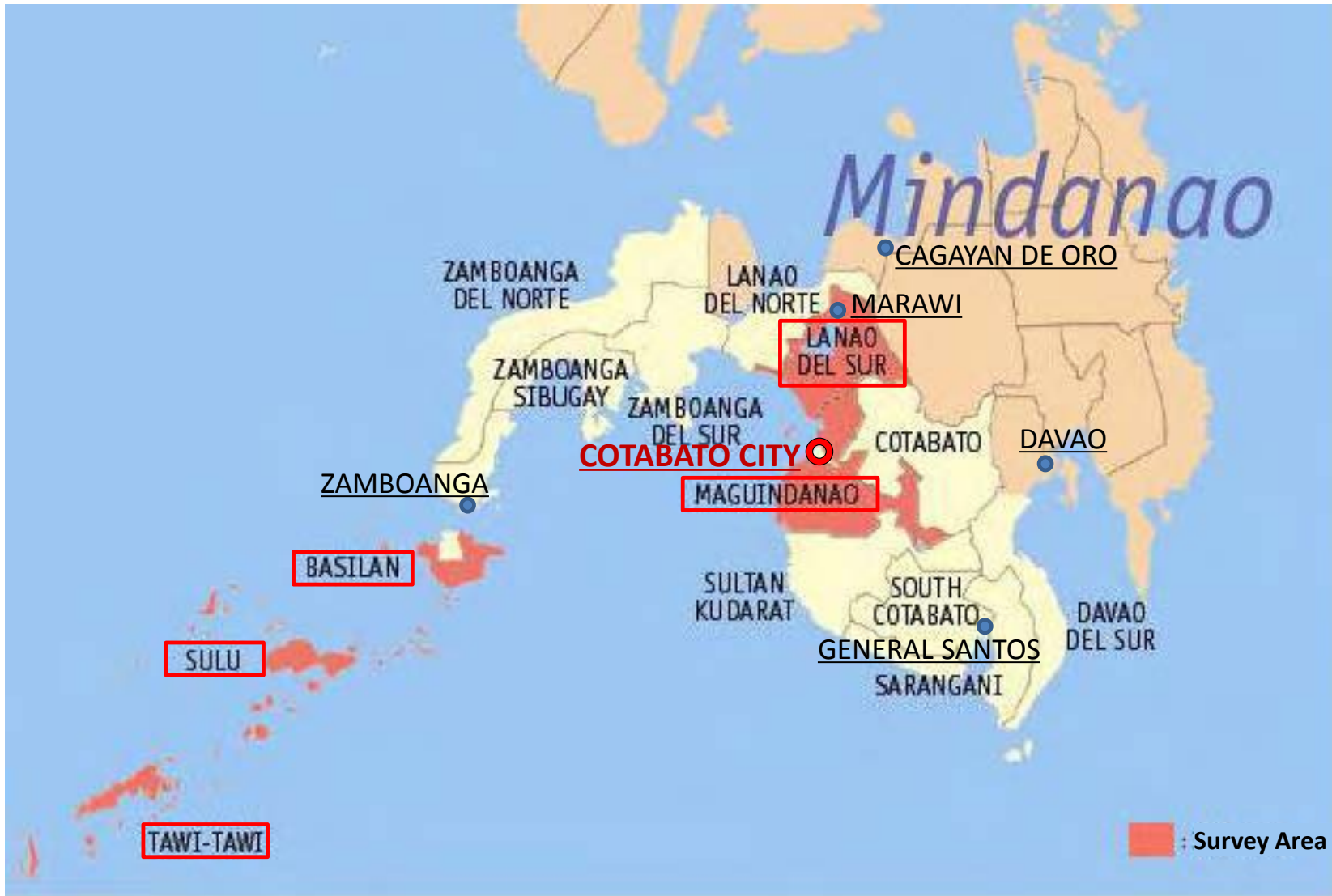
USD 1.00 = 76.81 JPY

USD 1.00 = PHP 43.62

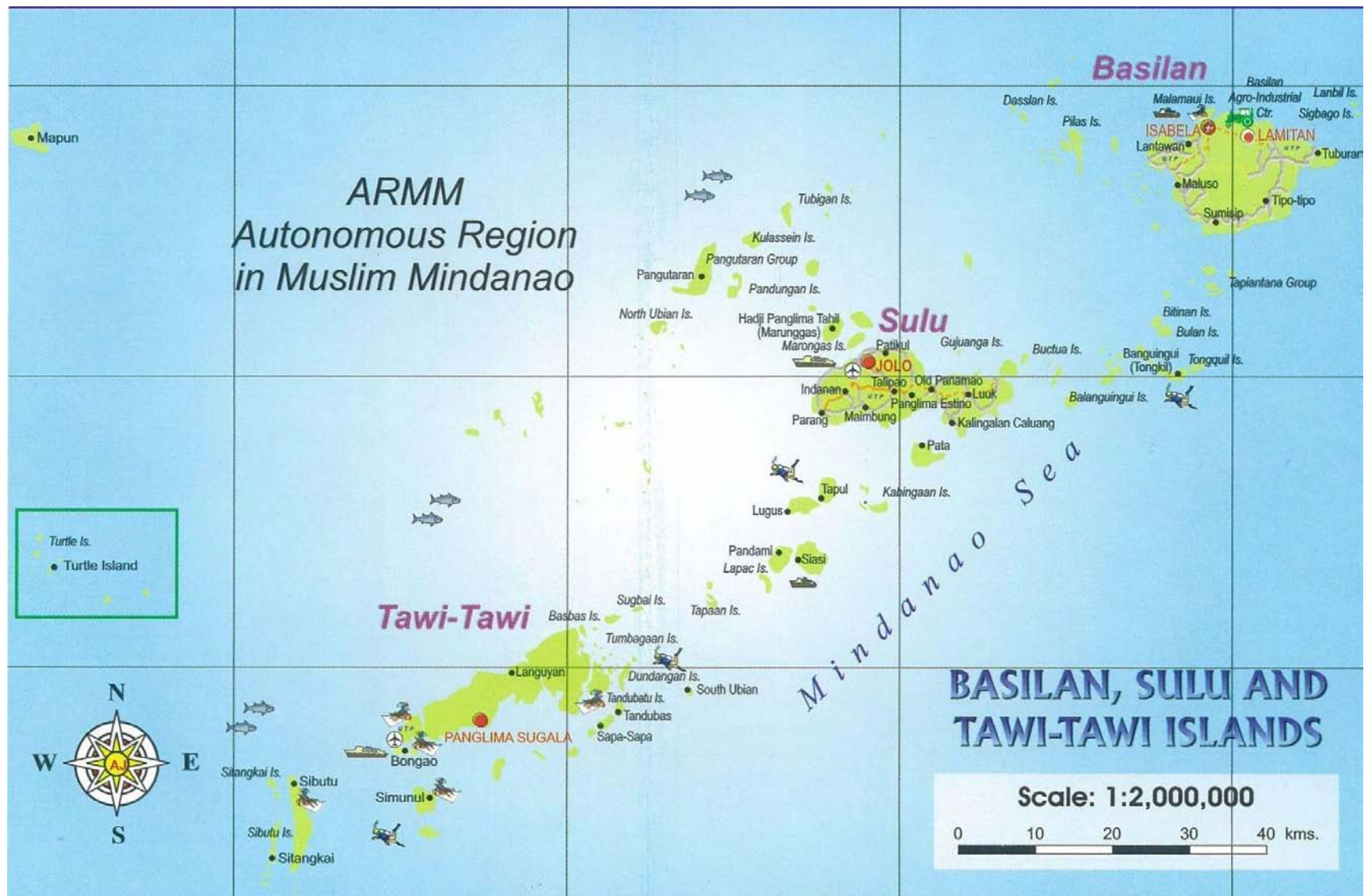
PHP 1.00 = 1.75 JPY

Maps of the ARMM

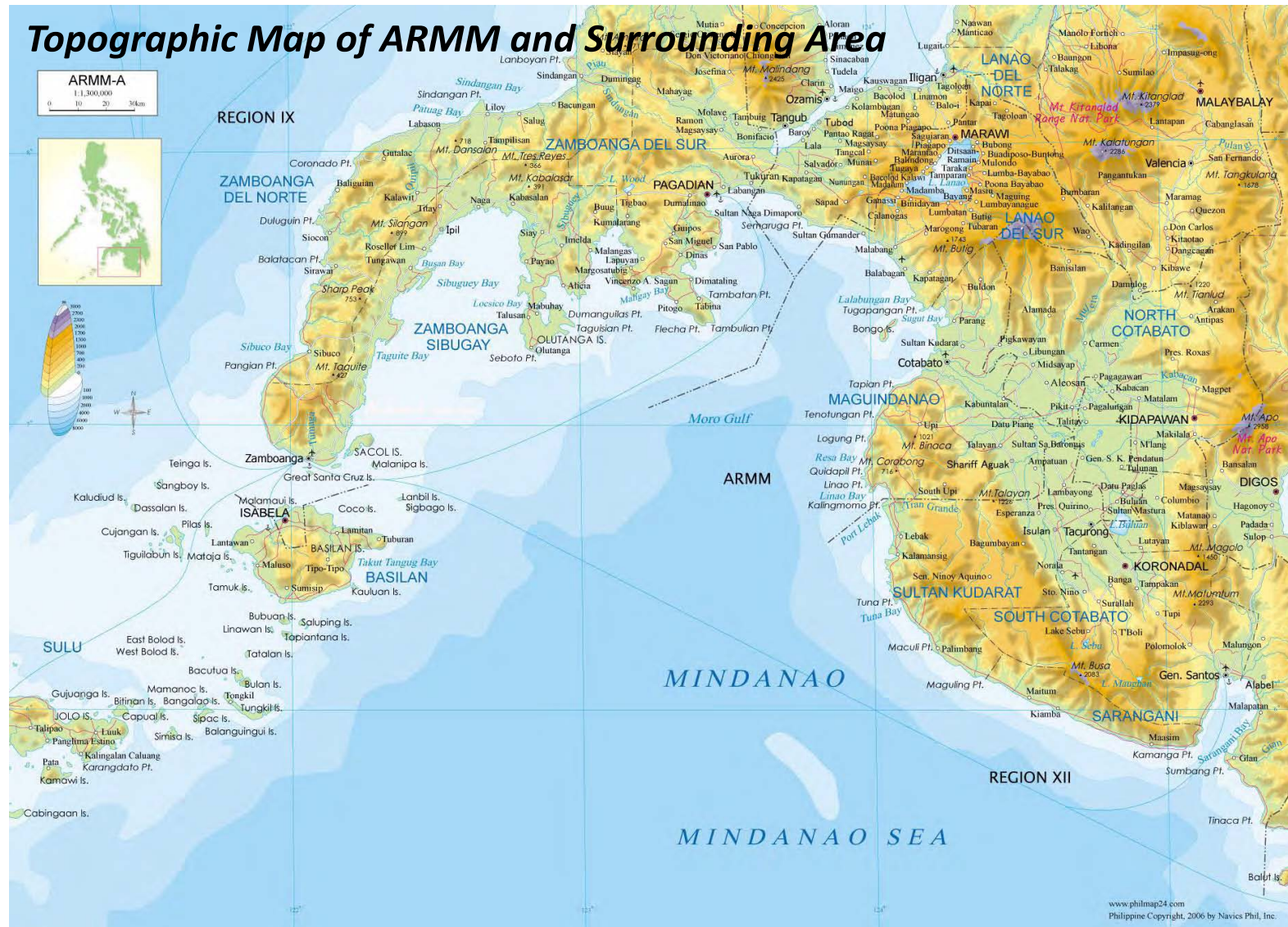




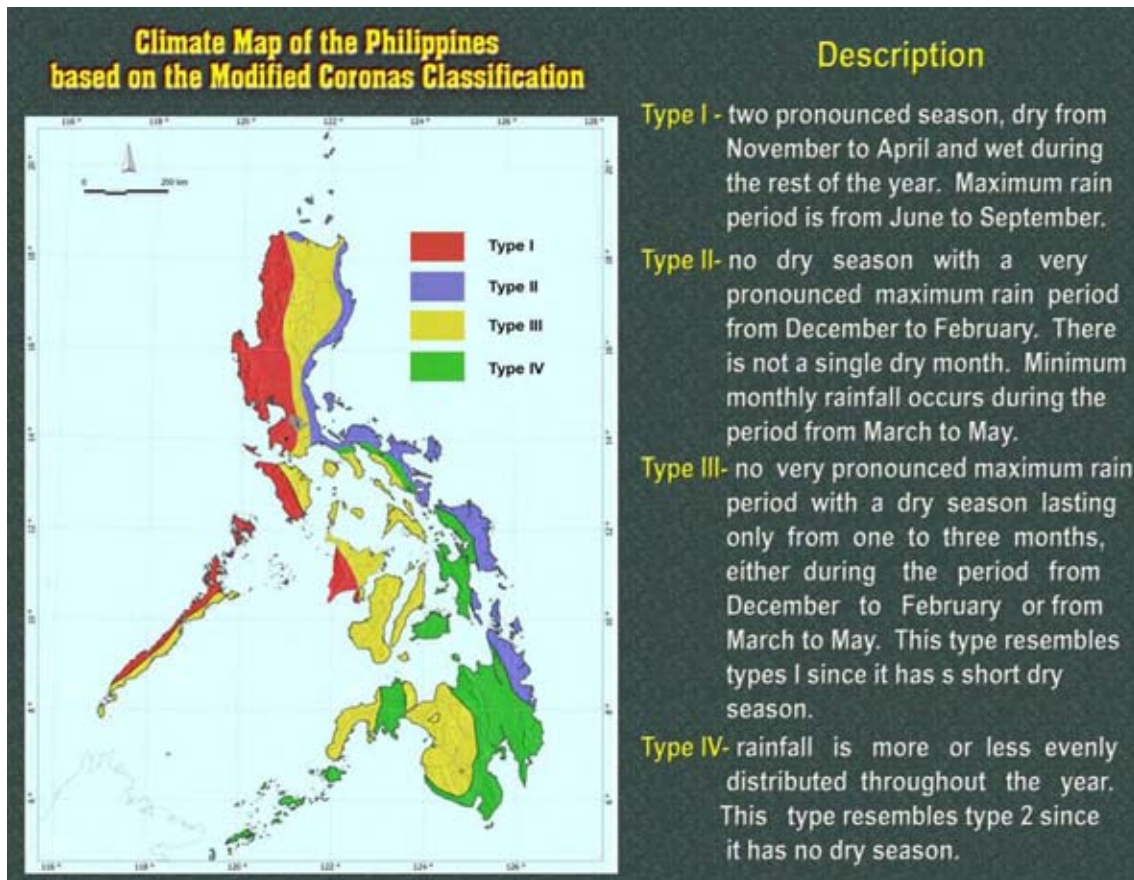




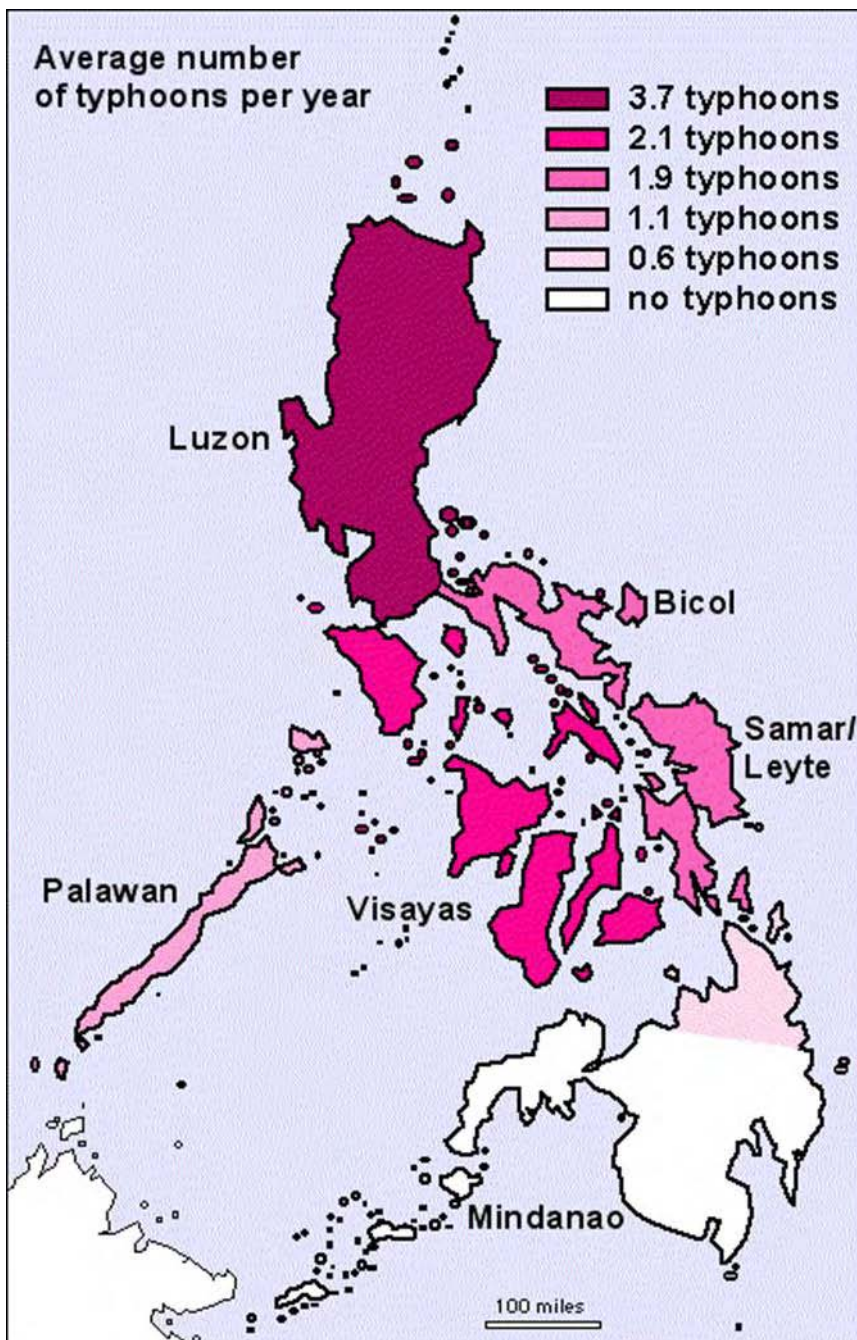
Topographic Map of ARMM and Surrounding Area



Weather Condition in Mindanao

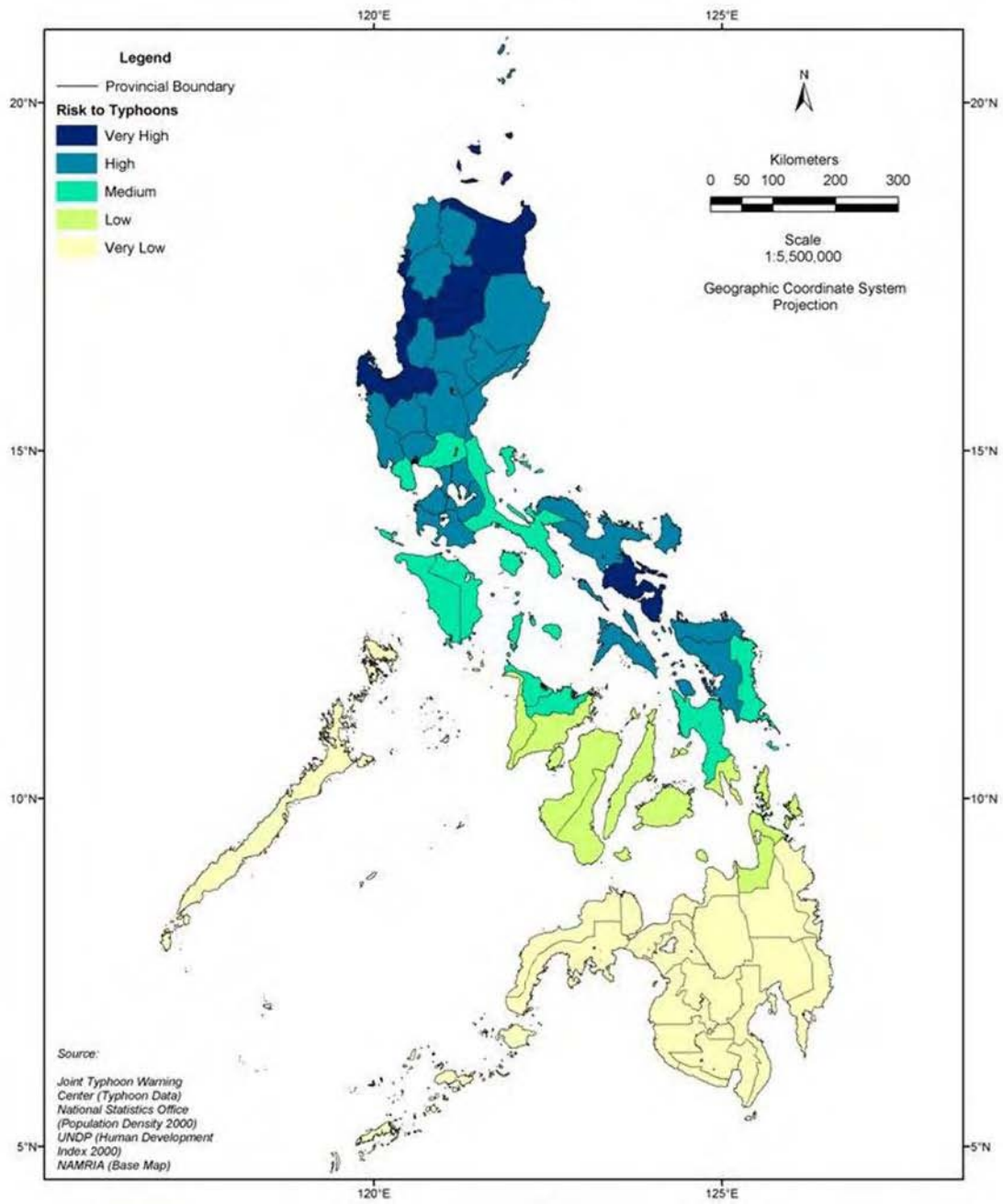


Source: Philippine Atmospheric, Geophysical & Astronomical Services Administration (PAGASA)



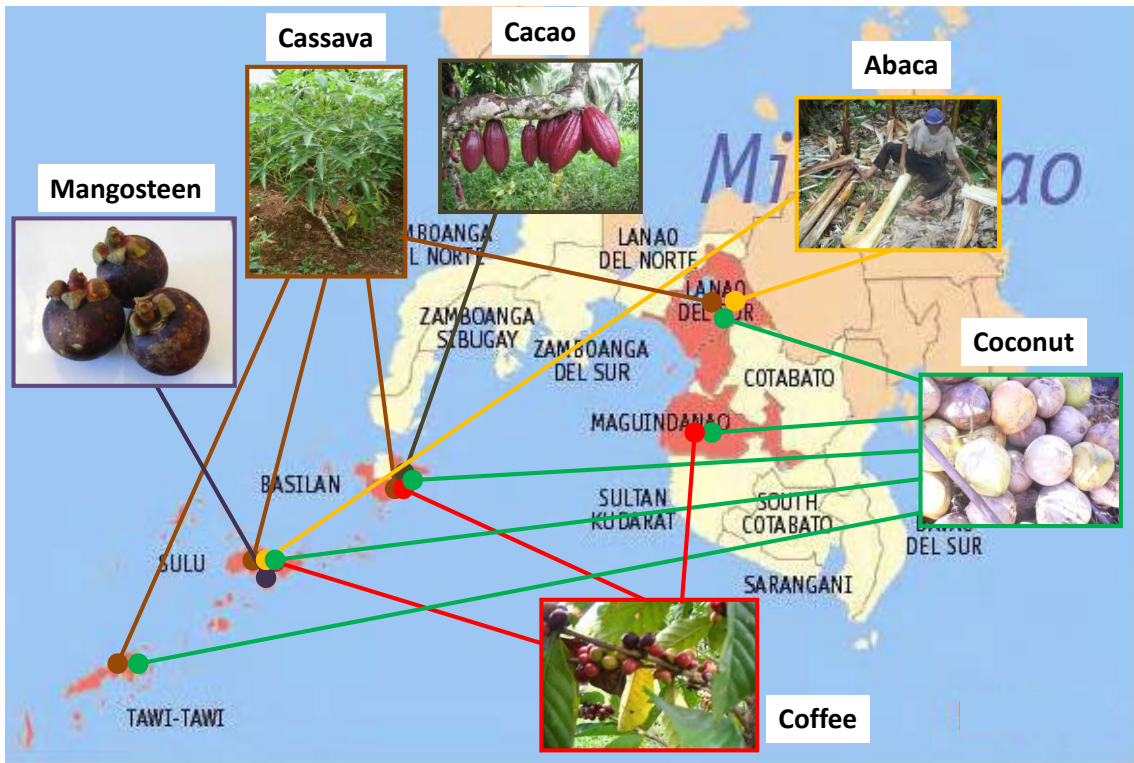
Source: Department of Environment and Natural Resources (DENR)

Risk to Typhoons



Source: DENR

Major Production Areas in the ARMM (Agriculture)



Major Production Areas in the ARMM (Fisheries)



Major Production Areas in the ARMM (Livestock)



EXECUTIVE SUMMARY

CHAPTER 1 INTRODUCTION

The objectives of the Study are to analyze the potentials of and constraints on local industries, and formulate a strategy for economic revitalization by promoting primary industries. Here are the expected outputs of the Study: i) results of analysis on industrial potentials in the ARMM; ii) a strategy for micro-industry promotion in the ARMM; and iii) capacity development of the government officials of the ARMM and other stakeholders.

The study area of local industry promotion is the entire ARMM that consists of five provinces, i.e., the inland provinces of Maguindanao and Lanao del Sur and the island provinces of Basilan, Sulu, and Tawi-Tawi. As one of the themes of this development study is to assess the potential and identify the constraints on local industry promotion from the viewpoints of general logistics and marketing strategy in Mindanao as a whole, the economies of Mindanao's major cities like Davao, Cagayan de Oro, Iligan, General Santos and Zamboanga City are also included.

To achieve the objectives mentioned above, the Study has covered the following items.

- (1) Analysis of current conditions, including i) socio-economic conditions, ii) policies, regulations and programs iii) the capabilities and performance of relevant institutions, iv) the existing local primary products and local industries, v) technical and financial support systems, vi) physical distribution and infrastructures, vii) human resources, and viii) donors' support
- (2) Identification of potentials of local industry in the ARMM
- (3) Identification of issues to be tackled for promotion of local industry
- (4) Development of a strategy for the regional economic revitalization through the promotion of local industry in the ARMM with:
 - 1) Vision and goals to promote local industries
 - 2) Regional revitalization strategy by local industry development
 - 3) Action plans (project and priority actions to be undertaken)

The Study was conducted from April 2010 to the end of October 2011.

CHAPTER 2 ANALYSIS OF CURRENT CONDITIONS

2-1 Social Conditions

The total area of the ARMM is 11,608 km², or 4% of the total national land. Its population is about 4.12 million, or 5% of the national population and 89% of them are Muslims. The annual growth rate of population of the ARMM from 2000 to 2007 is 5.7% and more than double of the national average. Although being blessed with abundant land and population, the ARMM is faced with various social and economic challenges. Level of education is below the national average; cohort survival rate of the elementary education of 41.3% is much lower than the national rate of 75.3%. The family income and expenditure level in the ARMM is around a half of the national average in 2009, the lowest in the country. The poverty incidence rate of the ARMM was 45.9% in 2009, about 19% higher than the national average of 26.5%, and the second highest in the country after Caraga Region. For the Philippine Human Development Index (HDI), five provinces in the ARMM are among the bottom ten in rankings according to the 2008/2009 report.

2-2 Economic Conditions

2-2-1 Economic and Industrial Structure

The growth of GRDP (Gross Regional Domestic Product) in the ARMM has been very slow. While the average growth rates of Mindanao recorded at 3.9% in 2008 and 3.7% in 2009, the rates of the ARMM were 1.9% and 2.6%, respectively. Per capita GRDP of the ARMM was 18,924 in 2009 which is only 23% of the national figure and the lowest in the country. Per Capita GRDP of the ARMMM at constant 1985 price decreased from 4,037 in 1999 to 3,572 in 2009, although the figure increased by 23% in the Philippines and 28-32% in neighboring regions of Region IX, XI and XII during the period.

The ARMM depends heavily on the primary sector consisting of agriculture, fisheries, and forestry, which accounts for about 60% of its GRDP. The labor force of the ARMM in 2003 was about one million and 66% of them belong to the primary sector. However, the labor productivity of the ARMM shows less than half of the national average in all the sectors.

Since the ARMM economy is dependent more on primary industry, the local industry promotion led by primary industry can have a large impact effectively on economic development in the ARMM. The average annual growth rate of GRDP in the region has been about 1% lower than

the country and overall Mindanao. To fill the gap between the ARMM and other regions in economic growth, it needs to sustain the average annual growth rate of at least 4.5% or higher. Based on the growth trends by sector and by region, it can be said that the ARMM has to achieve the annual growth of around 7% or higher in primary industry to maintain the overall regional economic competitiveness with others.

2-2-2 Trade

The total trade in Mindanao was US\$5.28 billion in 2008, an increase of 41% from the previous year. The main exports were coconut oil (25.3% of the total Mindanao exports), bananas (16%), prepared or preserved fish (9.5%), prepared or preserved fruits (7.3%) and, organic chemicals (lauryl, cetyl and stearyl alcohol) (4.7%). Other commodities were nickel ores, iron ore agglomerates (sinters), fresh and frozen fish, desiccated coconuts, and fruit juices. Despite the lack of the disaggregated data in the ARMM, it is fair to say that the ARMM contributed to exporting venture through primary products.

2-2-3 Investment

In 2010, the country's certified investment amounted to Php 299 billion, a remarkable increase of 93% from the previous year. In the non-ARMM regions of Mindanao in 2008, 40 enterprises made a total investment of Php 13 billion, increased by 72% from the previous year and provided 11,546 jobs. On the other hand, there are only 14 active enterprises registered at Regional Board of Investment (RBOI) in the ARMM with 10,410 jobs generated and a project cost of Php 3.3 billion so far and it can be said that the level of investment in ARMM has been very low. The investments were concentrated in the agriculture sector particularly in Maguindanao and Lanao del Sur. There is only one active investment project in the Island Province. It is reported that the low level of investment in the ARMM is caused by security problems and differences in religion, culture, and society. However, there is a move that the said investor plans to expand its fruit plantations in the ARMM.

2-2-4 Primary Industry

2-2-4-1 Agriculture

The agriculture sector is characterized by some major crops' production, i.e. staple food, cash crops, and fruits. As for production of staple food like palay, the ARMM ranked ninth among the 16 regions of the country accounting for 3.6% of the total national output. In 2009, the total area harvested in the region was 204,760 ha, and the total volume of palay production was 576,747 tons. The ARMM ranks fourth among the corn producing regions with 332,065 ha of corn in 2009. Although the area was decreased slightly from 334,482 ha in 1999, the production

increased by 38.5% from 685,987 tons in 1999 to 950,429 tons in 2009. Cassava is also a staple food substituting rice for people in island provinces of Basilan, Sulu and Tawi-Tawi, though it can be used for starch and animal feeds. The ARMM ranks first in the Philippines in the production of cassava with a land area of 94,071 ha in 2009.

Average annual growth rate of some major cash crops and fresh fruits from 1999 to 2008 varies and growth differs from commodity to commodity as herein enumerated: i) abaca's annual growth rate was minus 1.0%, ii) banana shows a steady upturn with 2.0% growth rate, iii) coconut shows growth of 2.1%, iv) coffee's growth remains stagnant with slight increase of production, and v) rubber grows with a high rate of 5.4%.

The ARMM ranks fifth in the country in both harvested area and volume of production of abaca, comprising about 6% of the total national harvested area, and about 7% of the total volume of production. Sulu has the largest harvested area and production volume, followed by Lanao del Sur. As for banana, 80% of the country's total banana production comes from Mindanao. The region accounted for about 7% of the total banana harvest area and about 4% of the production volume in the Philippines.

The ARMM contributed about 9% of the total area harvested and about 8% of the total production volume of coconut in the country. In the region, Maguindanao is the largest producer of coconuts, followed by Basilan, Sulu, and Lanao del Sur. In terms of coffee production, the region accounts for about 11% of both the total area harvested and the volume of production in the country. In the region, Maguindanao has the largest land area planted to coffee, mostly Robusta; however, Sulu has a larger production volume than Maguindanao. The rubber cultivation area in the ARMM accounted for about 10% of the total national production area. Basilan has the largest land area in the region planted to rubber plantation, comprising more than 95% of the total rubber cultivation area.

2-2-4-2 Fisheries

There are abundant fishery resources in the ARMM. There are two types of major fishing grounds: i) coastal and marine water areas such as seas, bays, and straits; and ii) inland water areas such as lakes, marshlands and rivers. Major fishing grounds for commercial fishing operations are Sulu Sea, Celebes Sea, and Moro Gulf. The rest of coastal water areas are generally located within the municipal waters. Basilan, Sulu, and Tawi-Tawi are island provinces surrounded by vast marine fishing grounds. In contrast, the contribution of Maguindanao and Lanao del Sur to fisheries production comes mostly from their major inland waters. The major inland fishing areas in the region are Lake Lanao in Lanao del Sur, the largest freshwater lake in the country; and the Ligawasan Marsh and Lake Buluan in Maguindanao.

The ARMM is the region with the largest fisheries production in the Philippines. Out of the country's total fisheries production of 508 million tons in 2009, the region accounted for 17.4%. The ARMM's dominance in fisheries production is due to the robust aquaculture sector especially seaweed culture production. The ARMM's aquaculture industry is concentrated in the island provinces of Tawi-Tawi and Sulu. Tawi-Tawi leads in fisheries production in the ARMM reporting 418,364 tons in 2009 because of a large seaweeds production. It accounted for 47.1 % of the regional fisheries production, followed by Sulu (33.8%) and Maguindanao (12.0 %). Sulu is the center of commercial fishing, responsible for 75.7% of the total marine fisheries in the ARMM. There are 43 commercial fishing ports in Sulu out of the total of 53 in the ARMM.

About 200,000 workers in the ARMM are employed in the fisheries sector. The fisheries sector is vital to the livelihood of a majority of the people in the island provinces.

2-2-4-3 Livestock

Livestock is mostly raised in backyard farms in the ARMM. Commercial farms accounted for less than 1% of the total number of animals raised. In general, farm households raise a few heads of livestock. Crop species for forage or fodder trees are less common in the ARMM and it is rare to apply any technology related to livestock production such as artificial inseminations, feed formulation, storage facilities for hay and silage making. Raising livestock like goats, cattle, carabaos and chickens usually follow traditional ways. There are almost no processed products. Mostly, livestock is slaughtered for consumption in both ordinary days and special occasions.

Basically, ways of raising livestock are in small-scale and they are almost the same among the provinces in the ARMM. Although there are some commercial livestock farms, they are still relatively underdeveloped in terms of infrastructure and technology. Even though the region's overall production of livestock increases, it's still not enough to meet the demands of local and international markets. The most common livestock in each province is: carabao in Maguindanao and Basilan; goat in Lanao del Sur; and cattle in Sulu and Tawi-Tawi.

2-2-5 Secondary Industry

According to the National Statistics Office (NSO), there are 7,993 enterprises in the ARMM, of which 1,066 (13.3%) are in the secondary industry. Enterprises in the ARMM are characterized by the smaller ratio of the secondary industry compared to the national ratio, and the concentration is more in wholesale/retail business enterprises. On the other hand, the number of establishments registered with the DTI-ARMM (Department of Trade and Industry of the ARMM, hereinafter called DTI unless otherwise specified) is estimated at 3,402 out of which only 6.7% (229 enterprises) are in manufacturing. Seventy three percent (73%) of the

manufacturing enterprises are food and natural resources related such as bakeries (27%), wood processing (22%), food processing (15%) and non-food agriculture processing (6%). Fourteen establishments in the ARMM are engaged in processing crops for industrial or non-food use, such as rubber, organic fertilizer, and virgin coconut oil. There are only six marine processing enterprises registered at the DTI, such as seaweed processing. There are 13 enterprises engaged in mining and quarrying registered at the DTI of which 10 are located in Maguindanao.

2-2-6 Tertiary (Service) Industry

One hundred-seventy-one (171) wholesalers, 10 exporters, 148 transport services, 1,791 retailers and 1,040 other services such as restaurants and hotels are registered at the DTI. The major products dealt by wholesalers and exporters are coconut products (45 enterprises) followed by cereal (such as rice and corn), marine products, and other agricultural products. Wholesalers and exporters dealing with agriculture and marine products (123) account for 68% of the total.

2-3 Policies, Regulations and Programs on Regional Development and Local Industry Promotion

The Philippine Development Plan 2011-2016 (PDP) aimed at inclusive growth that creates jobs and reduces mass poverty. One of the action plans under the section of Industry and Service is to enhance support to micro, small, and medium enterprises (MSMEs) such as provision of BDS (Business Development Service) and access to finance. In the agriculture and fisheries sector, the products with comparative advantage for Philippines are identified including banana, coconut, tropical fruits and abaca.

In 2011, the MSMED Council consisting of DTI-National and other public and private stakeholders for MSME Development issued the MSMED Plan for 2010-2016. The plan targets a 40% contribution of the sector to the gross value added and the creation of two million employments by 2016 and set the four target outcome areas of i) business environment, ii) access to finance, iii) access to markets, and iv) productivity and efficiency. To achieve the outcomes, the three approaches are adopted, which are i) local based economic development, ii) sector development focusing on value chain system, and iii) market system development. There are also several on-going programs by the DTI-National, such as i) promotion of quality management system for DTI-National offices, ii) cluster-based industrial development strategies, and iii) diagnosis system of MSMEs. The quality management system strengthened the performances of DTI-Regions IX, XI, and XII in Mindanao which have obtained ISO

(International Organization for Standardization) certificate. Although One Village One Product (OVOP) was actively promoted by the former president to support the growth of local MSMEs, its continuation is uncertain with the current administration.

The Mindanao 2020 Peace and Development Framework (20 year framework to 2030) was launched, with vision to improve quality of life in Mindanao. It includes five themes like “Dynamic, inclusive and green economy” which has seven strategies such as i) focus on potential sectors, ii) inclusive value chains, iii) MSMEs development, and iv) inclusive world class agriculture/agribusiness. The above i) potential sectors are mainly fisheries and agriculture and ii) inclusive value chains include the promotion of BIMP-EAGA, the Brunei Darussalam Indonesia Malaysia Philippines East ASEAN Growth Area. The Mindanao Development Authority (MinDA) and regional DTI offices in Mindanao formulated the Mindanao Action Plans for BIMP-EAGA in 2011. The plan includes flagship projects such as coco sugar, fishery processed products, halal poultry, and trade and investment promotion.

The ARMM government formulated the ARMM Regional Development Plan (2011-2016) in 2011. The plan sets regional macro-economic targets such as annual growth rate of GRDP at 3.5%, manage the annual population growth at 3.0%, and reduce poverty incidence to 43% in 2016. Under the plan, the strategies for economic development include i) harness the rich resources, ii) investment promotion, iii) strengthen economic relation with BIMP-EAGA, iv) reactivation of institutions and mechanisms for economic, trade, business and investment, v) strengthen institutional governance, vi) capacitate MSMEs and cooperatives, vii) institutionalizing the ARMM as the halal industry-led region, viii) intensify scientific and technology application, eco-tourisms, and marketing, ix) strengthen cooperatives management, x) installation and upgrading of infrastructure support facilities, and xi) promotion of the Special Regional Economic Zone Act (REZA) .

As included in the above plan, major programs for industry promotion by the ARMM government include i) promotion of REZA and ii) Halal Industry Development Plan. However, due to lack of funds, the implementation of REZA has been delayed. While DTI has been conducting various activities including business services and trainings to enterprises, performance data of these activities is not yet available. It is observed that there are limitations for DTI to join the national programs as mentioned above partly due to budget constraints.

The ARMM line agencies which are directly involved in the promotion of local industry are as follows:

Roles of Departments in the ARMM for Local Industry Promotion

Name of the Department	Major Roles for Local Industry Promotion
DTI-ARMM	Promotion, Regulation, and Coordination of Trade and Industry
DAF-ARMM (including BFAR-ARMM)	Development of Agriculture, Forestry, and Fisheries
DOST-ARMM	Processing Technologies
DILG-ARMM	Supervision of LGUs in the ARMM, Supports for preparing and evaluating their development plans
RBOI-ARMM	Promotion, Assessment, and Acknowledgement of domestic and foreign investments for the ARMM
CDA-ARMM	Registration, supervision, training, and the direction of cooperatives in the ARMM

Note: The departments above are hereinafter called DTI, DAF, BFAR, DOST, DILG, RBOI, and CDA, unless otherwise specified.

In addition to the above, each Local Government Unit (LGU) in the ARMM is also active for promotion of local industries, although the impact and outputs of their activities may depend on the leadership and participation of the local people.

As an informal organization, Bangsamoro Development Agency (BDA) was established by the Moro Islamic Liberation Front (MILF) as a result of the initial peace agreement between the National government and the MILF in June 22, 2001. The function of the BDA was defined as being the coordination agency responsible for executing humanitarian support for development and reconstruction in the conflict affected areas.

In the private sector, each province has a Chamber of Commerce, and they are also integrated in ARMM Business Council (ABC). There are also many civil society organizations (CSOs) which undertake and support income generating projects among the inhabitants. Some higher academic institutions such as the University of Southern Mindanao (USM) has a program to promote local industry by providing research and development (R&D) and technical guidance to the inhabitants in the agriculture and fisheries sectors. Production cooperatives of various local products have indispensable roles for promotion of local industry in the ARMM because each of them may become a nucleus of future local industry development. Cooperation and partnership activities are necessary among provincial offices of the ARMM, LGUs, universities and other private organizations.

2-4 Technical and Financial Institutions

In ARMM, there are some network and technical institutions, which have potentials to support local industry promotion, including the ARMM Business Council, regional chambers of

commerce, Small and Medium Enterprise Development Council, University of Southern Mindanao, Kadtuntaya Foundation Inc., and ARMM Integrated Agricultural Research Center (ARMMIARC). The collaboration among these resource institutions is necessary to utilize their strength effectively.

Financial institutions in the Philippines consist of government banks, commercial banks, thrift banks, rural banks, cooperative banks, NGOs, and Savings and Credit Cooperatives (SACCOs). Although there are many micro finance institutions (MFIs) including about 500 NGOs, 191 rural banks, and 4579 SACCOs in the country, overall outreach is limited to one third of poor households in the nation. There are several government and private institutions which support MFIs through provision of loanable funds, trainings and other capacity building efforts. In the ARMM, the outreach of financial services to poor households is further limited; whereby only 4% of the population were able to use loans from the MFIs.

2-5 Halal Industry Promotion

By the teaching of Islamic Holy Qur'an, it is a religious obligation for a Muslim to take "halal" foods in their daily life. "Halal" means "permitted, allowed or lawful" and the opposite is "haram." One of the most known haram foods is pork.

The world population of Muslim is estimated at 1.6 billion in the latest research in 2011 and the population is steadily increasing annually. The present value of the global halal food market in 2010 is about US\$ 661 billion and the volume is also rapidly enlarging, along with the increase of the Muslim population. In Asia, the Muslim population is estimated at 1,105 million and the size of Asia's halal food market is reported to be at US\$ 418 billion. The Philippine Muslim population is about 4 to 5 million, and 80% of which is assumed to live in the ARMM area. As the demands for halal foods and products grow rapidly even in the Philippines, it is currently evident that the supply (volume, kind, quality) is quite insufficient.

In the Middle Term Philippine Development Plan (MTPDP) 2004-2010, halal food industry development was designated as one of the strategies to promote its agribusiness in the Philippines and the ARMM as a strategic place for the growth. The ARMM government has been actively promoting the halal industry development. In 2009, the ARMM Halal Industry Development Plan and the ARMM Regional Halal Food Industry Development Plan were formulated in the promotion process.

Since the major stakeholders for economic development are in the private sector, their role is indispensable for realization of halal industry development in the ARMM. The halal

certification board is necessary for their mandate of certification. The Muslim Mindanao Halal Certification Board (MMHCBI) was thus established in 2006. The ARMM Business Council and affiliated Chambers of Commerce have been mobilized to lead local industries, which include halal industries in the area. Other civil society organizations (CSOs), higher academic institutions, Non-Government Organizations (NGOs), and producer associations are also expected to contribute to promotion of halal industry in the ARMM through their own capacities. By integrating the above mentioned government promotion policies and commitment by private sectors, the bottom up approach is recommended for the realization of halal industries in the ARMM, even under the difficult social and economic conditions.

2-6 Donor Support

Major JICA's projects in the ARMM are related to local industry promotion, which includes: i) ARMM Human Capacity Development Project (2008-2010, technical cooperation); ii) Study for Socio-Economic Reconstruction and Development of Conflict-Affected Areas in Mindanao (SERD-CAAM, 2007-2009; development survey); and iii) ARMM Social Fund Project (Yen Loan; 2003-2010). There are areas we can utilize their results and expect synergy effects, such as i) component of economic development, ii) a community development plan being formulated, and iii) community and regional infrastructure development.

Other major donors that assisted in the ARMM particularly in the Local Industry Promotion are Canadian International Development Agency (CIDA), United States Agency for International Development (USAID), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the World Bank, the Asian Development Bank and the United Nations. Among these donors, CIDA (Local Government Support Program; 2005-2009) and USAID (Growth with Equity in Mindanao: 1995-the present) provided technical assistance with the ARMM regional government and LGUs in the area of local industry promotion or economic development.

CHAPTER 3 CASE STUDIES ON LOCAL INDUSTRY PROMOTION IN THE ARMM

3-1 Study Methodology

The objective of the study is to propose appropriate approaches for local industry promotion in the ARMM from a regional perspective. The study is meant to i) conduct a series of case studies for local industry promotion in the ARMM, collecting information and data on current situation and challenges; ii) describe different approaches, iii) identify lessons learned from those cases in different approaches; iv) conduct social assessment in the context of the ARMM; and v) address recommendations on appropriate approaches.

The Study was conducted through literature reviews and a field survey. Due to security conditions, the field survey was limited to Maguindanao province where relevant LGUs, companies and cooperatives were visited.

3-2 OTOP in the ARMM

The One Town One Product (OTOP) implementation in the ARMM is part of the national program on OTOP implemented by the national DTI Central Office. The national DTI provided the overall guidance and technical assistance in the implementation of OTOP in accordance with the goals and objectives of the Medium Term Philippine Development Plan. The DTI is the designated lead agency to implement the strategy with the ARMM Regional Government and the LGUs. As of June 2010, 44 LGUs have already identified their respective OTOPs. To sustain the initiative Sangunian Bayan (municipality council) resolutions in each municipality were passed to ensure that the OTOP declaration is covered by local legislation. Only the municipalities of Upi, Tugaya, Wao and Sultan Kudarat have moved forward their OTOPs successfully. The success of the OTOP depends on the real commitment of the LGUs to the strategy backed up by human investment and budget.

3-3 Cooperatives in the ARMM

Due to the re-evaluation and re-registration of the ARMM's cooperatives by the revised Cooperative Code or Republic Act 9520, the number of cooperatives in the region has dropped around 6,700 to 685 or 4.43% of the total number of cooperatives in the country in June 2010 (Maguindanao: 46.1%, Lanao del Sur: 19.2%, Sulu: 15.0%, Tawi-Tawi: 11.0%). These cooperatives have a registered membership of 41,135 and an asset worth Php 2 billion. The

authorized capital of the cooperatives reached Php 3.567 billion of which Php 892.82 million has been subscribed and Php 223.33 million paid-up. There are a few successful cooperatives in the ARMM. Key factors to success and sustainability of the cooperatives are: i) strong leadership in cooperatives; ii) good quality membership composition (e.g. family-ties); and iii) networks and linkages with other organization and institution that provide technical, financial, logistical and other supports.

3-4 LGU-Led Activities

The model for public-private partnership is best demonstrated by the municipalities of Upi and Datu Paglas in Maguindanao, with their Upi Agriculture Ventures Corporation and the various companies operating banana plantations in Datu Paglas. Inter-LGU alliance is a relatively new development in the ARMM. LGUs in the region have not shown their strong political and organizational maturity to be able to share limited resources with each other and address common concerns. Even the LGU Leagues have not been a player shaping the governance landscape of the region.

3-5 Donor Support

The LGSPA support to industry promotion was implemented through the Local Economic Development (LED) Program. The overall objective of the LED is to improve the quality of life by providing opportunities to increase incomes, generating new jobs, strengthening local governance and increasing cooperation among local economic development stakeholders including the LGUs, private sector, CSOs and communities. GEM (Phase Two) involves the Business Growth Component, which consists of: i) Business Support Organization Development; ii) Target Commodity Expansion Project; and iii) exploratory investments in key industries. The main strategy of the GEM is to strengthen capacities of stakeholders who are identified as key players in the value chain for specific commodities. To this end, GEM assists potential farmers and fishermen in order to achieve a successful case or endeavor that will be replicated by others.

3-6 Assessment of the Different Approaches

The practice of local industry promotion in the ARMM includes different approaches or modes,

such as: i) national government-led approach, ii) LGU-led approach, and iii) private sector-led approach. Despite all the efforts undertaken in the region, achieving socio-economic transformation is challenging considering the conflicts which affected the communities of the region, as they aspire for self-determination. The challenges are not only external factors, i.e., relations with the national government. Even within and among communities and among clans, there are deeply rooted traditions and concerns that need to be settled both through alternative and traditional approaches including rido.

3-7 Social Assessment of Local Industry Promotion in the ARMM

The socio-cultural history, tradition and differences in the ARMM can be also an opportunity to understand better the needs and aspirations of the communities in the region. Applied towards achieving common good, the exercise of traditional leadership role can become an effective tool for mobilizing community towards supporting a major economic undertaking.

3-8 Findings for Appropriate Approaches

Based on the results of the case study on local industry promotion in the ARMM, findings for future intervention are summarized as follows: i) enhanced involvement of communities; ii) building corporate partnership and public-private partnership; and iii) strong enabling policy. The initiative at the immediate terms should provide new perspective in social relationship and cohesion, address unemployment problem, provide income opportunities and improve business environment in the region. It is important that all stakeholders (national and regional government, LGUs, and private sector, communities) must work together, defining their respective roles and perform the agreed roles. Regarding the activities in the ARMM, the regional government should take an initiative.

CHAPTER 4 ECONOMIC ANALYSIS OF LOCAL INDUSTRIES AND BUSINESSES IN THE ARMM

4-1 Local Industries in the ARMM

According to the NSO, the number of enterprises with more than 20 employees in the ARMM decreased from 74 in 2006 to 67 in 2008. While the service sector has the largest number of establishments, the agriculture sector employs the largest number of people. When looking at the value added per worker, the value of the ARMM decreased to Php 167,000, which is the lowest in the Philippines. The industrial sector attained the highest value at Php 267,000 in the region and the value for the agricultural sector is less than half amount of the industrial sector. It can be said that in the ARMM the agricultural enterprises such as plantation have the greatest effect on employment generation.

There are 14 operational enterprises out of 23 registered at Regional Board of Investment (RBOI). Since the project cost of the active enterprises amounted to Php 3.3 billion, the remaining Php 6.4 billion has not been fully utilized or not actually invested. There are several common characteristics on the active enterprises, which are: i) location with good security and where local leaders are pro-industry promotion, ii) utilization of local natural resources, iii) strong management partnership and/or secured market, and iv) openness to outsiders or investment from outside of the ARMM or non-Muslim community. However, several challenges were reported such as shortage or unstable supply of materials, market competition, insufficient infrastructure and high transportation costs; and need for support to find new market. On the other hand, the major reasons for non-operation of the nine enterprises are management problems and insufficient feasibility studies. The problem on land ownership forced the suspension of the large scale palm oil plantation in Lanao del Sur.

The Southern Philippines Development Authority (SPDA) is a government corporation which undertakes development projects and makes investments for economic development of Mindanao. SPDA initiated the five large projects in the ARMM in early 1980's including agro-industrial project in Lanao del Sur covering 26,000 ha and fishery and seaweeds development projects. The ownership and management of these projects were transferred to the ARMM government in 1993. But most projects stopped due to a lack of funds from the ARMM government, inadequate management capacity, peace and order problem, etc.

4-2 Current Status of Businesses – Result of Business Study

To understand the current situation and challenges of local businesses in the ARMM, questionnaire survey was conducted involving 518 enterprises in five provinces with focus on manufacturing, wholesale, transport and agriculture/fishery related services. The major findings are as follows.

(1) Profile

The substantial number of enterprises has owners or managers with college/university education (44%), operating for more than 10 years (33%), and employing more than 10 staff (22%). Although the study focused on enterprises registered at DTI, 24% are not registered at any government authorities. The major reasons for not registering include no need for registration and lack of knowledge. Most of the enterprises started operation based on the resource and demand situation in the community or to succeed family businesses and by obtaining the skills from family or community. The major problem at the start of the business is the lack of fund, so they sourced the funds by their own or from their family/relatives/friends. After the start of businesses, majority of them increased their working capital, equipment/machines and sales.

(2) Financial Status

Over half of the enterprises do not keep income/expenditure records and cash book. Majority (69%) of them has a capital less than Php 250,000. It is estimated that the wholesale sector has higher profitability than the manufacturing sector. Since most of the manufacturing enterprises are home-based and small-scale, their added values seemed to be very limited.

(3) Management - Procurement, Marketing, and Business Strategy

As many started business based on the supply of materials and demand in the community, their business transactions are locally based, meaning that the majority procure and market their products within the provinces of the ARMM. But 25% of the enterprises sell their product / services outside the ARMM. Most of the products sold outside of the region are agriculture and fishery based such as copra, corn / cassava starch, rubber, dried fish, coffee, rice, seaweeds, and abaca. For marketing, 68% obtained the information from business colleagues and half of the respondents plan to expand their market. The manufacturing and transport sectors were more active in planning for market expansion. However, many do consider that if they increase the production and services and branch out, they can expand the market. As to the business strategies taken, more than half cited “quality control”, indicating their interests on the quality of their products. However, their responses on “quality control” are not at the level of achieving certified standards, as many have received neither appropriate guidance nor training. Nevertheless, their responses indicate their interest or concerns about the quality of their products.

(4) Access and needs for Finance, Business Development Services, Trainings, and Networking

Access to various services is very limited in the ARMM. As for the financial services, majority has not utilized loans from financial institutions but 61% indicated the plan to borrow fund for their businesses preferably from financial institutions. Only 21% have availed of business development services and trainings. In island provinces, the ratios of experiences are very low at 8-13%. LGUs were more frequently indicated on the question of trainings/services providers, while there were only four enterprises that have availed of the services offered by DTI. However, half of the respondents appealed the needs for such services. Technical skill training is ranked first as the required services followed by trainings on business planning/management, entrepreneurship, financial management and marketing. Only 10% belonged to business associations or other kinds of network.

(5) Business opportunities and challenges:

Majority have positive perception on the future of the industry. The most frequent answer on their strength is the good quality of product, with the highest ratio in manufacturing sector. On the opportunity for their businesses, too, most frequent answer is the good quality of the materials/inputs, followed by the growing market and the abundant supply of input/material/products. Major challenges are insufficient capital/fund, insufficient infrastructure such as electricity and roads, and unstable security conditions. The responses on the external problems differ among provinces. Over half in Basilan and Sulu pointed out the problem of security, while the enterprises in Tawi-Tawi show their concerns on infrastructure including water. To cope with the problems, the enterprises expect support from various agencies but half of the responses are toward municipal LGUs. The results indicated that the LGUs are the organizations closer to the enterprises where assistance may be requested.

4-3 Environment for Business in the ARMM

The above analysis on investment projects and enterprises in the ARMM revealed that some of the major challenges for business and industry development are related to the business environment, such as security situation, infrastructure, land title, support of the LGUs and education.

4-4 Overall Analysis of Enterprises in the ARMM

Major characteristics of the enterprises in the ARMM are analyzed as i) agriculture and fishery-based, ii) limited successful business in manufacturing sector, and iii) potential

processing business. It is recommended to promote the industry based on the comparative advantage of the ARMM, which are agriculture and fishery products utilizing its natural resources. There are also several agriculture- and fishery-based processed products marketed outside of the ARMM. Although some businesses already pointed out challenges such as securing stable supply of goods, it is recommended to review on potentials of these products for local industry promotion in the ARMM.

4-5 Current Status of Microfinance

4-5-1 Demand for Microfinance

There is a huge unmet demand for financial services by farmers, fishermen, and Micro Enterprises (MEs). One of their major challenges is the seasonality and fluctuation of income affected by weather conditions. Savings is not common and many have to borrow from relatives, friends, or traders. The loans from traders are common among farmers under a guaranteed buying price of their farm product. These individual lenders charge high interest rates of 10-20% per month. About features of credit, they prioritize access and repayment period. Another issue is that some Microfinance Institutions (MFIs) limit their services only to women borrowers.

The results of Business Study also show a big gap between demand and supply. Although 60% needs loans for working capital and business assets, there is a gap between their demand and current supply by MFIs, such as loan amount and repayment term. Seventy percent (70%) indicated the difficulties to get loans from formal institutions due to long process document/collateral requirements. With regard to savings, majority keep cash at business or home and 31% cited the difficulties to save at formal institutions due to long process, document requirements and access.

These indicate the need for financial institutions to develop more flexible services to meet their demands and conditions as well as simple document requirements and processes. Improvement of access is also necessary.

4-5-2 Supply of Microfinance

At present, 13 MFIs including two rural banks are operating in the ARMM but their coverage is limited to specific areas in 27 LGUs (23%). The number of clients is around 22,000 (4% of the total population), but a majority are female retailers. Ninety seven (97) cooperatives also provide loans to their members and they are very much concentrated in Tawi-Tawi (33) and Sulu (30). There are 76 LGUs (64%) without services provided by MFIs and lending

cooperatives in the ARMM. The ratio is high in Lanao del Sur (80%) and Maguindanao (69%). It is encouraging that MFIs reported good repayment rates in the ARMM and some are interested to expand their operations. While the majority of their clients are female MEs such as retailers, some institutions introduced agriculture loans to farmers. However, these agriculture loans are still limited to those with other income source or land title and there is a gap between current product design and needs. One of the notable efforts is Food Supply Chain Program launched by the Land Bank. The program is to support crop, livestock and fisheries production and one of the methodologies is to provide loans to farmers for their agricultural inputs through the processor of their farm products. This has already been implemented with a palm oil processing company in the ARMM.

4-6 Infrastructure and Physical Distribution

The most essential infrastructures in the existing and potential market area for commodities of the ARMM are good roads and bridges, complete facilities inside the airports and seaports, and efficient roll-on/roll-off transport system. Equally important are good gravel farm-to-market roads.

4-6-1 Road Network and Transportation

The total length of the national road in the ARMM is 891 km, the shortest among regions in Philippines but the pavement ratio is 77%, slightly higher than the national average. The provincial roads that link municipalities between the ARMM and Region XII are mostly unpaved. The common problems observed during construction are the inadequate implementation of properly designed gravel road and improper gravel road maintenance which aggravates the physical condition of the road. There are rural roads connecting the municipal roads and barangay roads, and the inadequacy and bad conditions of roads are observed in the rural areas, particularly in sitio and barangay communities in the ARMM, which lead to spoilage during the transport of vegetables from the farm to the market areas in municipalities or cities. Fish vendors cannot deliver fresh fish to remote areas due to bad roads.

4-6-2 Sea and Air Transport

(1) Sea Transport

The seaport is the most important infrastructure linking land transport and maritime transport for the movement of commodity cargo or passengers in an archipelagic country. ARMM sea transport for cargo and passengers is linked to the network of major long-distance domestic container transport and long-distance passenger ferries nationwide. On route to Maguindanao in

the ARMM, the sea transport vessel will dock or pass by at Polloc Port at Parang Municipality. The ARMM government has declared Port Polloc as Free Port and has envisioned reviving the dynamic cargo handling activities in the area. However, the present port has inadequate capabilities, due to the lack of facilities and cargo handling equipment. In the island provinces of Basilan, Sulu, and Tawi-Tawi, the port hub is Zamboanga City for passenger and cargo transport. .

(2) Air Transport

In Mindanao, there is one (1) regular international airport in Davao City and two (2) alternate international airports in Zamboanga City and General Santos City. In the ARMM, there is Awang Airport in Maguindanao province, which is Principal Class-1 airport.

4-6-3 Physical Distribution Facilities

Physical distribution facilities for handling, packaging, transporting, and storage of commodities are essential to maintain the quality of the commodity until it reaches the market outlet. The physical distribution facilities for commodities in selected areas in the ARMM, Region IX, Region X, Region XI, and Region XII are described.

Fruits are transported using animal driven sleds or wheeled carts in rural areas while traders usually provide vehicle transportation. Most of the tropical fruits need no warehousing and cold storage. Immediate transport from the trader/wholesaler to the market is essential due to their short fresh life. Export-bound fruits like bananas are stored in a cold storage area and large agri-businesses have their own cold storage facilities. The most common transports are land and water transport facilities, or intermodal facilities.

Fish industry facilities in the country are not complete or comprehensively available, although there are 421 fishing ports which are actively operational. There are barangays and municipalities along the coastline that have no community fishing ports or even community coastal roads for immediate access for the distribution of aquatic and marine commodities. Local small-scale fishermen use wooden hull boats to bring their fish catch to a nearby market. Only major fishing ports are capable of having warehouse and storage or cold storage. In local distribution, particularly for inter-island transport, like the route from the inter-island provinces of Tawi-Tawi, Sulu, and Basilan to Zamboanga City, intermodal transport is essential for efficiency of the transport system. However, most of the fishermen and traders in the island provinces of the ARMM or Mindanao are not dependent on this kind of transport. Instead, fishing boats are used to transport products to the major fishing ports or any other accessible fishing ports.

With regard to livestock, all animals shall be butchered in a slaughter house as mandated by law. It is mandated that all municipal and city LGUs should have a common slaughter house. Livestock is transported by small vendors or traders with motorbikes, four wheel vehicles, or boats, while large livestock growers/wholesalers use trucks to transport animals. In long distance travel, refrigerated vans are used to maintain quality and hygiene. Public market does not have warehouses and large cold storage building facilities. However, in large supermarkets, hotels, and restaurants, larger storage facilities are available to accommodate the larger demand. In the poultry sector, large processing plants of big companies or corporations have cold storage as they process produce in large volumes daily. For eggs, small to large providers have storage facilities available prior to delivery.

4-6-4 Physical Distribution and Market Outlet in Major Cities and Municipalities

(1) Metro Cebu, Region VII

Metro Cebu is the main hub in the Central Philippines for domestic sea transport and air transport in the country. Metro Cebu has the largest capacity of seaweed processing in the country with eight processors.

(2) Iligan City, Region IX

Iligan City is in the Northern Mindanao Corridor and many large businesses including coconut oil processing are attracted to the city because of its stable supply of power and water. Export commodities such as coconut by-products went through the Iligan City Seaport. Iligan City seaport handles cargo and passengers from the provinces of Lanao del Sur and others.

(3) Zamboanga City, Region IX

Zamboanga City is located in the western tip of the Island of Mindanao and famous for fish and marine products, seaweed, rubber, abaca, and coconuts. Major industries contributing to domestic and export distribution include seaweed processing, fish and other marine products.

(4) Metro Cagayan de Oro, Region X

Metro Cagayan de Oro is located along the central coast of Northern Mindanao Island and noted for its accessibility to the Visayas region, owing to its large seaport and modern base port, attracting cargos from neighboring provinces such as Lanao der Sur. The seaport has cold storage facilities that can handle sensitive agricultural commodities like fruits and meat.

(5) Metro Davao, Region XI

Metro Davao is an agglomeration of Davao City and four surrounding cities. Davao City is the center of commerce in the metropolis which has been attributed to the location of seaports, international airports, Central Public Market, Tuna Transshipment Fishing Port, Coconut Oil Processing Plant, Seaweeds Semi-Processing Plant and other processing plants in the city.

(6) Cotabato City, Region XII

Cotabato City is the trade center in Central Mindanao (Region XII) and some of the agricultural products come by land transport from the adjacent provinces including Maguindanao and Lanao del Sur, like fruits, livestock, poultry, and others. The dilemma for the people from the Island Provinces is lack of direct transportation to the city because there is no available direct flight to Cotabato City from Tawi-Tawi, Sulu, and Basilan or available fast sea vessels.

(7) General Santos City, Region XII

General Santos City (GSC) has a world-class Fish Port Complex and is known as the Tuna Capital of the Philippines. It accounts for the largest daily total fish landings in the country and is the leading producer of sashimi-grade tuna for export. Fish farmers from other provinces send the fish they catch to the GSC Fishing Port as selling outlet or for auction. There are large processing companies of coconut oil and fish in this city.

CHAPTER 5 RESULTS OF POTENTIAL PRODUCTS SURVEY

5-1 Survey Methodology and Constraints

Chapter 5 describes analytical results of products in 3 sectors, namely agriculture, fisheries and livestock. Current situation of respective products are explained in terms of the following 5 aspects: production, production technology, processing, supply chain, and marketability. The situation is also visualized in radar chart form after rating the products on the 5 aspects with some criteria. Moreover, at the end of the chapter, priorities were given to some products which can be promoted in the ARMM. Priority condition differs among the 3 sectors due to different characteristics among the industry and degree of maturity in production through market.

Accordingly, the following products in the sectors were prioritized for local industry promotion.

- i) Agriculture products: abaca, cacao, cassava, coconuts, coffee, and mangosteen;
- ii) Fisheries products: abalone, grouper, milkfish, mud crab, seaweed, and tilapia; and
- iii) Livestock products: cattle, chicken, and goat.

The field surveys faced serious challenges in relevant data collection for value-chain analysis, especially on detailed operational costs. The challenges include the security situation, insufficient capacity of small scale stakeholders to keep business records, and improper distribution route from production areas to the market. Therefore, it was very difficult to conduct the value chain analysis properly in the product potential study.

5-2 Agriculture

Among the 30 crops, 11 products were selected as target products for survey and analysis. Finally, 6 products were prioritized as mentioned above. The current situation and main issues of the 6 prioritized products can be summarized as below:

5-2-1 Abaca

Production: The ARMM contributes 7.3% to total production in the Philippines. Yield of abaca fiber is about 1.8 ton/ha in Lanao del Sur and 560 kg/ha in Sulu which implies low productivity.

Production Technology: Quality is not consistent to required quality from traders. Farmers are less technically supported. Quality planting material is required.

Processing: Abaca can be processed into sophisticated and creative products of handicrafts which are available in the country. However, handicraft industry is very limited in the ARMM.

Supply Chain: Fibers in Lanao del Sur and Sulu are conveyed to outside of the provinces. Access road and long distance between producers and traders are fundamental issues to be addressed.

Marketability: The Philippines is supplying 85% of the world's demand. Major importers are China, India, Indonesia, UK, Eastern Europe, USA and Japan. Cordage material is highly preferred over synthetic materials which are not environment friendly.

Main issues:

(1) Low productivity

Cultivation technology the farmers adopted is low and quality of planting material affects the abaca fiber productivity. The growers use improper tools for harvesting so that suckers of the plants are damaged which also causes decline of production.

(2) Low fiber quality

The current post-harvest operation (such as extraction, drying and storing) results to low quality of fibers especially discoloration which lowers price of fiber.

(3) Absence of value added product / processing

Fiber conversion does not exist in the ARMM though demand of value added handcraft products exists and development of the industry is seen today in Mindanao. This potential can create opportunities in abaca production of the ARMM for both domestic and overseas markets.

(4) Lack of access to technical support

Farmers in the ARMM have limited access to technical assistance of Fiber Industry Development Authority for production, post-harvest, fiber conversion, and marketing. Meanwhile, Fiber Industry Development Authority (FIDA) Region-X is less capacitated to handle the problem of Lanao del Sur, a major abaca producing province in the ARMM.

5-2-2 Cacao

Production: The area of cacao in Mindanao shares about 80% of total planted area in the country. Unfortunately, the ARMM only produces 120 tons accounting for 2.4% of total production in the country.

Production Technology: Cultivation methods are well established and planting materials are accessible within Mindanao. However, production cases are hard to find in the ARMM.

Processing: There are about 13 firms engaged in processing and confectionary/chocolate manufacturing, located in Metro Manila, Bulacan and Laguna. There is no chocolate processing firms in the ARMM.

Supply Chain: The cooperative in Lanao del Sur sells dried or fermented cacao beans to a buyer in Manila. The beans are also conveyed to Davao and Cagayan de Oro.

Marketability: Cacao has a great opportunity to be grown and fill the gap between domestic production of about 6,000 tons and demand of 30,000 tons annually.

Main issues:

(1) Limited production in the ARMM

Although there is high demand for cacao, its production is limited in the ARMM. Opportunities for farmers to be exposed to technical skills training on cacao production are minimal. Thus, farmers are not aware of the present technologies and the demands of the market. Accessibility to nurseries and budwood gardens for planting material is limited in the region.

(2) Inferior quality of cacao beans

The aroma of chocolate is created from fermentation and drying process after harvest; however, conventional post harvest operation affects the quality of the cacao beans before shipping, leading to low selling price.

(3) Difficulty of sea transportation and road access

Ferries bound for Zamboanga city are used to ship dried fermented beans of producers in Basilan province; however, the means of transportation is sometimes not well- arranged as scheduled due to its less capacity causing delay of shipping. Access road condition to cacao plantation during rainy season hinders transportation as well.

5-2-3 Cassava

Production: The ARMM is the important region for cassava and accounts for about 50% of the total production of the Philippines.

Production Technology: Cultivation method is well established, but due to less fertilization and use of native planting materials, productivity is low.

Processing: Lanao del Sur province hosts two cassava processing plants which absorb almost

90% of the cassava production for starch in the province. On the other hand, processed food products are not well developed and are currently produced for local consumption in rural areas.

Supply Chain: Distribution route is already established in the case of Lanao del Sur; however, road networks and rural infrastructures to help the farmers in accessing the market are required.

Marketability: ARMM registered an annual per capita consumption of 10.40 kg which is 3 times higher than the national average. Negative gap between export and import of starch still exists.

Main issues:

(1) Low yield

Low yield is resulted from traditional cultivation practices coupled with unavailable fertilizers to which farmers face difficulty to acquire. They also use traditional old varieties with less vitality. Lack of technical instruction and financial constraint lead farmers not to change but cling to conventional cultivation.

(2) Lack of post-harvest technology

Cassava should be properly handled after harvest; otherwise, it starts to deteriorate. Post-harvest technology to maintain quality of fresh cassava root is not well disseminated and lack of appropriate machinery and facilities such as cassava graters, cassava pressers, chippers, dryers and storage are lacking.

(3) Inactive value added processed industry

Home-made cassava delicacies in the ARMM do not reach wide market yet and remain in the rural area. Processing technique is still outdated. On the other hand, processed products like fried chip, pudding, pies, and cakes grow and get popularity in urban cities outside of the region. Cassava needs to find a way to transform into high-value added product to remain as a major crop.

(4) Weak infrastructure on transportation and market

Marketing infrastructure and information service are weak. Farmers in Lanao del Sur face difficulty to access to market from cassava farms due to poor road networks. Public markets and information service are not facilitated well. As a result, opportunities for the producers to sell their raw products or grated cassava are limited.

5-2-4 Coconut

Production: The ARMM contributes 14% to total production in Mindanao. Although coconut is a dominant crop, it creates the lowest value per ha among crops.

Production Technology: There is a need to improve productivity. Sustainable coconut-based integrated farming for diversification should be accelerated to increase sources of income.

Processing: There is one crude oil processing plant in the ARMM. Apart from oil extracted from copra, there are innumerable processed products or by-products from coconut; however, such processing industry is not existing in the region yet.

Supply Chain: Distribution channel of copra is established from the ARMM to destinations including export of oil. But, as for by-products, e.g. coir and dust, systematic collection in big volume and transportation costs are issues for activating the said processing plant.

Marketability: The European Union (EU) is the largest international buyer of coconut oil and coconut by-products due to their refined taste (as healthy edible oil), high-value confectioneries, and high quality personal care products. Coir and dust from coconuts husk (as by-products) are the ones with increasing demand in China.

Main issues:

(1) Low productivity of copra

Productivity of copra is low, (i.e., 670 kg/ha in Maguindanao¹) because optimum fertilization is not widely practiced and partly due to reluctance for investment in coconut farming and less advocacy of the industry. Besides, the supply of hybrid varieties is limited.

(2) Low quality of copra

The quality of copra is low. The traditional method of drying leads to darker copra, thus lowering its selling price. Kukum dryer, an improved drying method, has been introduced and technical assistance is provided. But the acceptability level of this drying facility is still low.

(3) Slow rate of coconut-based intercropping

Coconut tree is suitable to intercropping with other crops but it is not widely practiced. Thus, crop diversification is dull resulting to less diversification of income sources.

(4) Very little value-adding coconut processing and utilization of by-products

Although coconut can be used for various purposes, processing to add values such as jam, sugar and syrup, vinegar and so on are limited in the ARMM. Manufacturing of products like charcoal, twine, and geo-textile from coconut coir and dust are also limited in the region.

(5) Lack of quality control in coconut sugar manufacturing

Production of coconut sugar is becoming a popular business for small to medium scale farmers. However, due to a lack of quality management of coconut sap, the sugar varies in

¹ Potential Products Study in Maguindanao, CeMILARDe Foundation, Inc., 2010.

color and develops even darker color after certain period of shelf-life.

(6) Lack of production technology for vinegar and sprints

Traditionally accepted vinegar and alcoholic beverages are produced by small-scale processors; however, the producers' lack of basic knowledge in food processing and hygiene sometimes leads to contamination and production of unsafe products.

(7) Less capacity for advocacy of PCA Region XIV -ARMM

The capacity of Philippines Coconut Authority XIV-ARMM cannot cover all activities relating to coconut industry development involving over 300,000 ha with more than 100,000 coconut farmers in the ARMM.

(8) Lack of access to affordable agricultural credit

Farmers are not willing to risk in acquiring loans with collaterals like land mortgages because these lands are their last resorts for survival. Besides, there are voluminous loan requirements imposed by the financial institutions and farmers do not appreciate such procedures.

5-2-5 Coffee

Production: Mindanao dominates 65% of total coffee production of the Philippines. The ARMM contributes about 11% to total production of the country.

Production Technology: Robusta's productivity per tree in the ARMM is 1.67 kg compared to the highest yield of 3.38 kg in Central Luzon and 3.21 kg in Western Mindanao.

Processing: Nestle is the one which activates coffee industry as a buyer of coffee from farmers and process them into commercial products. However, very few cases were seen that farmers' groups process it into final products like roasted coffee beans

Supply Chain: Distribution channel is established and most of the farmers sell green coffee beans to traders who convey the beans to processing firms. The farmers in rural areas have no choice but to sell the beans to the middlemen.

Marketability: Soluble or instant coffee dominates about 90% of all coffee consumption in the country. Coffee shops increase and franchised coffee shops get popular. Meanwhile, the volume of imported soluble coffee increased. There is a room for producers to fill the increasing domestic demand.

Main issues:

(1) Low productivity of green coffee beans

Productivity of Robusta coffee in the ARMM is low; the production is 1.67 kg per tree. On

the other hand, the highest production is 3.38 kg in Central Luzon followed by 3.21 kg in Western Mindanao. In the ARMM, traditional method of extensive farming is dominant. The conventional method does not apply any care and old trees lower productivity. In addition, farmers are provided with less information on coffee cultivation technique.

(2) Poor quality of green coffee beans

Selective harvesting is not well adopted resulting in mixture of ripe and unripe coffee cherries. Selection of ripe berries by use of water is not practiced either, so insect-damaged berries still remained. Sun drying causes impurities to be mixed with the cherries. This kind of post-harvest operation lowers down the quality of green coffee beans. The result is lower selling price.

(3) Unawareness and misunderstanding of organic coffee by producers

Some coffee products in the ARMM are sold as organic; however, they are not fully accredited or authorized as organically produced. As for organic agriculture certification, accreditation process of organic coffee by domestic or international bodies² should be well disseminated to the producers and for them to understand the importance of such certification.

(4) Lack of market linkage and consolidation

When selling green coffee beans, middlemen take advantage of the their position in power balance between them and individual producers who are not apt to consolidate or group themselves in order to increase their bargaining power or to decrease cost for post-harvest processing and transportation. Branding of green coffee beans to break in niche market has not yet been done in the ARMM because producers are not exposed to such strategy in creating new market. Organic coffee or area specific coffee should be focused for branding.

5-2-6 Mangosteen

Production: The ARMM has 36% share of the total production in the Philippines.

Production Technology: Production technology is still traditional and on-farm management is not fully performed in Sulu.

Processing: Processed mangosteen jam is famous. Xanthonenes and bioactive substances are rich in rind which can be raw materials for food supplement. All parts of fruit can be utilized, but the processing of mangosteen is very limited in the ARMM.

² National Organic Agricultural Board (NOAB) is the organization which carry out the policy and program provided in the Republic Act No. 10068 of the Government of Philippines which is an Act Providing for the Development and Promotion of Organic Agriculture in The Philippines and for Other purposes. The NOAB is attached to the Department of Agriculture (DA).

Supply Chain: Handling is complex. Farmers make a bundle of fruits of 2-2.5 kg or 20 pieces and sell in the form of bundle. However, the transaction is performed by weight basis at Davao city.

Marketability: Market for mangosteen in Sulu is Zamboanga city, Cebu, Cagayan de Oro, Manila, etc. Other processed products from Kidapawan go to USA, Israel, South Korea and other places.

Main issues:

(1) Misconception on difficulties in cultivation

Concerning production technique, there is a misconception among growers that it is difficult to grow mangosteen due to its slow growth, long juvenile period and bienniality of production. Farmers of Sulu stick to traditional cultivation. Dissemination of package of technology in cultivation is necessary.

(2) Very limited activities of processing

Processing activity is very limited for only regular consumers in Sulu although all parts of the mangosteen can be utilized as raw materials for processed products. Package of technology on processing is also needed.

(3) Lack of awareness on medicinal value as supplemental food

Medical value and health benefit out of mangosteen are well acknowledged in domestic and international markets; however, farmers or consolidated groups are not aware of it. Hence, the value-added activities are not being undertaken.

(4) Conventional handling unit for business practices

Lots of market margin seems to be absorbed by middlemen before mangosteen reaches the consumers. The transaction near the farm gate is practiced by use of “bundles of fruit”, but trade is done by “weight” in urban cities. Thus, conventional transaction method differs depending on physical location of distance to urban market.

5-3 Fisheries

According to the results of potential product study, the current situations and main issues of the priority fisheries products in the ARMM are summarized as follows.

5-3-1 Abalone

Production: Abalone production in the ARMM is still limited, because abalone culture was introduced in Tawi-Tawi just a few years ago.

Production Technology: Lato-Lato Marine Multi-Purpose Hatchery and MSU Tawi-Tawi can produce abalone seeds artificially and supply abalone seeds to local fishing communities. However, abalone culture skill is still new to the local fishers.

Processing: Abalone is commonly traded in fresh style or condition because fresh abalone is adapted to dry condition. Dried abalone can be processed for export; but it is not common in the ARMM.

Supply Chain: Fresh abalones produced in the ARMM are mainly distributed and consumed at Zamboanga City. Some fresh abalone may be distributed in Manila or other cities.

Marketability: Abalone is one of the high-value fisheries products in the Philippines and neighboring countries. Therefore, the market demand for abalone products is very high.

Main Issues:

(1) Insufficient supply of abalone seeds

The local marine hatcheries have started to distribute abalone seeds to local fishing communities. There are high demands for abalone seeds in the region. Because there are capacity limits of abalone seed production at the hatcheries, the production volume is not sufficient to meet the demands of local communities.

(2) Little awareness of abalone grow-out culture

Because abalone culture is newly introduced in the ARMM, the number of farmers engaged in abalone culture is still small. To promote abalone culture in local fishing communities, demonstration and model programs of abalone grow-out culture are necessary.

5-3-2 Grouper

Production: Groupers are commonly captured by artisanal fishing along the coastal areas of the ARMM. Recently, fish cages for stocking and farming groupers are gradually increasing in coastal areas, especially in Tawi-Tawi.

Production Technology: Grouper seed supply depends on a collection of wild small fish. Currently, the Lato-Lato Marine Multi-purpose Hatchery in Tawi-Tawi wants to produce grouper seed through artificial insemination.

Processing: The majority of groupers are processed into salted dried fish, due to lack of preservation facilities at production sites.

Supply Chain: Fresh and live groupers are dealt with high value for Chinese cuisines. Live groupers are especially exported to Hong Kong and Macau.

Marketability: The market trend of fresh and live groupers is moving upward domestically and internationally.

Main Issues:

(1) Dependence of seed supply on wild fish

Artificial grouper seed production is still underdeveloped at the local marine hatcheries operated in Tawi-Tawi. Therefore, local fishers collect wild grouper seeds at coastal areas for their cage culture operations. Because wild grouper seeds can be caught by simple fish traps, large efforts of wild grouper collection decrease the natural grouper resources along these coastal areas.

(2) Low quality of fresh grouper products

The market value of live groupers is usually higher than that of fresh fish. However, because most of cultured or captured groupers are not properly handled and preserved after harvest or fishing, it is difficult to maintain their freshness for a long time in post-harvest stages.

(3) Insufficient skills of grouper culture

Local fishers of the ARMM do not have ample experience in cage culture of live grouper, even though a lot of fish cages have been introduced at coastal areas of the island provinces, especially Tawi-Tawi.

5-3-3 Milkfish

Production: Even though milkfish is the most popular fish in the Philippines, the production in the ARMM accounts for only 1% of the national figure. Maguindanao is a major producing province in the ARMM.

Production Technology: Local fish farmers apply extensive method for milkfish pond culture. Cultured fish feed on natural organisms can grow in brackish-water ponds. Therefore, it bears little cost although the production is low. There is no milkfish hatchery in the ARMM. Local milkfish seed supply depends on catches of wild fries.

Processing: Boneless dried milkfish is widely consumed as value-added products all over the Philippines. However, the milkfish processing activities are not common in the ARMM.

Supply Chain: Fresh milkfish cultured in the ARMM is mainly distributed and consumed at local markets of the ARMM and neighboring cities, like Cotabato City or Zamboanga City, etc.

Marketability: Milkfish consumption in the ARMM is good, even though local milkfish culture production is low. Due to its popularity, the local milkfish demands are expected to rise.

Main issues:

(1) Low productivity of local pond culture

Most milkfish pond farmers adopt traditional culture method. Cultured fish is normally feeding only on natural organisms in ponds because they are given little supplementary feeds. To improve the pond productivity and quality of milkfish cultured, improved culture method should be applied.

(2) Shortage of seed supply for possible demand

Currently, most fish farmers don't face any serious shortage of local fish seed supply, because milkfish seeds naturally come and grow out in brackish-water ponds along mangroves and coastal areas. However, securing wild milkfish seeds must be considered to promote milkfish culture largely in the ARMM; there is no local milkfish hatchery to produce milkfish fries and fingerlings artificially in the region.

(3) Little popularity of milkfish processing activities

Most milkfish produced in the ARMM are distributed as fresh fish in the local markets. There are few milkfish processed products in the ARMM, even though several kinds of processed products of milkfish are already developed and distributed in other regions. This situation is reflective of low production in the locality.

5-3-4 Mud Crab

Production: Mud crab is produced only at coastal areas of Maguindanao and Basilan. Mud crab is cultured with milkfish in brackish-water ponds using traditional extensive methods. Therefore, local mud crab production is very limited.

Production Technology: Traditional extensive culture is very simple. Mud crabs naturally grow out with feeding on natural organisms produced in ponds. However, the productivity of pond is low, and harvested crabs in ponds vary in size and quality.

Processing: Mud crab can live in dry condition for a long time. Mostly, mud crab is sold either live or fresh. Therefore, locally produced mud crab is rarely processed.

Supply Chain: Fresh mud crab cultured in the ARMM is mainly distributed and consumed at neighboring cities. Some fresh mud crabs are also distributed to Manila and other cities.

Marketability: Mud crab is one of the high valued fisheries products in the Philippines. It can be exported to neighboring countries. The international market demand for mud crabs is also high.

Main Issues:

(1) Unstable local seed supply of mud crab

Because there is no marine hatchery for mud crab in the ARMM, the current seed supply of mud crab completely depends on wild seed collection at coastal and mangrove areas. Therefore, local seed supply is often affected by the seasonal and environmental conditions.

(2) Low quality of mud crabs produced in ponds

Because most farmers use traditional methods to culture mud crab, they don't provide crabs in ponds regularly with additional feeds (i.e. trash fish). Therefore, mud crabs in ponds don't grow equally in all aspects, so their harvest sizes vary. To ensure the quality of harvested mud crabs, it is necessary to improve the feeding management in ponds.

5-3-5 Seaweed

Production: The ARMM is the second largest region when it comes to seaweed production in the Philippines. Seaweed culture is very common in Tawi-Tawi and Sulu. Recently, Parang, Maguindanao became a seaweed production site.

Production Technology: Seaweeds can be cultured by simple methods which local fishers easily apply at coastal areas. Floating rafts made of simple local materials are used for culturing seaweed.

Processing: Fresh seaweeds are dried under sunlight after harvest. However, the quality of dried seaweeds is not well controlled. The carrageenan processing factories are located in Zamboanga City, Cebu City, and Manila. There is no seaweed processing plant in the ARMM.

Supply Chain: Most seaweed products such as seaweed chips or carrageenan powders are exported to USA, EU, and Japan for various purposes.

Marketability: There is an upward trend of seaweed supply in the world. The international demand of seaweed products as a carrageenan material will be much higher.

Main Issues:

(1) Unstable quality of dried seaweeds

To avoid any contamination with other substances such as sand, pebble and other foreign bodies harvested seaweed has to be dried on clean floors and places. However, many

farmers still place harvested seaweed on an open space beside (i.e. beaches, grass grounds or roads) for their drying. Sometimes, other substances such as sand, pebble) are mixed with dried seaweed to add its weight, before their sales to local traders.

(2) Few active organizations of local seaweed farmers

Because seaweed culture needs wider coastal areas, seaweed farmers should regulate their culture spaces properly to avoid conflicts with ordinary fishing activities. Although a market demand of seaweed products gradually increases, local farm-gate prices of dried seaweeds are stagnant at low level. Usually, local farmers sell their dried seaweed in individual negotiations with local traders.

(3) Depletion of cultured seaweed quality

When same strains of seaweeds are used in grow-out continuously for a long time, the seaweed production is gradually dropped by a depletion of seaweed quality. To maintain stable seaweed production and better quality, seaweed farmers have to obtain and plant a pure strain of seaweed regularly.

5-3-6 Tilapia

Production: Tilapia is mainly produced at Maguindanao and Lanao del Sur in the ARMM. The largest production site of tilapia culture is Lake Buluan, Maguindanao. The catch of tilapia fishing in rivers and lakes is also high.

Production Technology: Tilapia is cultured in fishponds or pens by utilizing extensive method. Tilapia grows by feeding on natural organisms present in ponds or lakes. These culture methods are very simple; however, the productivity of fish pond or pen are not so high.

Processing: Some farmers' organizations make smoked and dried fish from their cultured or captured tilapia. These tilapia products are distributed mainly at local markets. However, the quality of these processed fish is hardly maintained.

Supply Chain: Fresh tilapia cultured in the ARMM is mainly distributed and consumed locally. Some locally cultured tilapia is sold at the neighboring cities in Mindanao.

Marketability: The demand for tilapia is high in the local markets, because it is a cheap source of animal protein. However, the tilapia consumption in the ARMM is lower than the national level because local tilapia production is not sufficient.

Main Issues:

(1) Shortage of local tilapia seed supply

Most fish farmers obtain tilapia seeds at the BFAR fish farms, but their facilities are not

fully utilized and operated to produce tilapia seeds. Marantao fish farm has been operating since 1960's and the farms' facilities are outdated and therefore needs rehabilitation.

(2) Low productivity of tilapia pond culture

Most local farmers grow tilapia with traditional culture methods (extensive). Even though the operational costs of traditional pond culture are low, the productivity of fish ponds is also low. In addition, a fish production cycle becomes longer too.

(3) Low quality of tilapia processed products

Some fish farmers' organizations or women groups have already processed tilapia products such as smoked or dried boneless fish. However, the quality of those processed products is not stable, because the product quality is not properly managed in their processing.

5-4 Livestock

According to the results of potential product study, the current situations and main issues of the priority livestock products in the ARMM are summarized as follows.

5-4-1 Cattle

Production: Cattle raising in the ARMM is predominantly a backyard endeavours. This means that each farmer has an average of 2-7 heads of cattle.

Production Technology: In terms of disease prevention, immunization and de-worming practices, local livestock raisers seek the assistance of the Department of Agriculture-Animal Science & Veterinary personnel in the area. The breeding of the livestock is achieved by natural means. The preferred breed of raisers is Brahman since it is highly adaptable to the local environment.

Processing: In the Philippines, meat processing of cattle such as sausage has already been established as an industry. However, it is not yet done in the ARMM.

Supply Chain: It is usually the middlemen who collect the stock and bring them to the slaughter house. The stock is butchered and distributed to the meat vendors in public markets.

Marketability: The volume of beef imports in the Philippines in 2009 was 41,000 metric tons, valued at US\$ 51.76 million Freight on Board (FOB). Compared with the previous year's data, the volume and value of imports were decreased by 16.65% and 24.45% respectively.

5-4-2 Chicken

Production: Native chicken production in the ARMM is considered mostly as backyard production. This means that each farmer has an average of 4-5 heads of native chicken.

Production Technology: Native chickens are well known for their adaptability to local agro-climatic conditions, toughness, ability to utilize farm-by-products and resistance to diseases. Moreover, they require minimal care, management and inputs. But the productivity of native chicken is not high in the region. It is pointed out that the reason for the low production is attributed to poor farm management and absence of relevant technology information by small scale farms.

Processing: Native chicken is a convenient staple food in the ARMM such as fried, grilled, or stewed. They are not considered as processed food

Supply Chain: Native chicken in the ARMM is usually brought to the town market by the farmers. It is sold alive to traders. It will be slaughtered and sold to meat retailers. Later, the retailers sell the chicken meat to the customers.

Marketability: In 2009, the total volume of chicken meat imports was registered at about 61,444 metric tons and valued at US\$ 35.14 million FOB. As compared with the levels in 2008, the volume and value of imports significantly increased by 40.42% and 53.82%, respectively.

5-4-3 Goat

Production: Of the total 4.20 million goat population in the Philippines, 99.02% were raised in backyard farms. The headcount of the total goat population in 2010 is 0.44% lower than the 2009 population.

Production Technology: Goats require low maintenance because they eat tree leaves, weeds, grasses and agricultural by-products. Moreover, women and children can raise goats, making it a sound option to augment the country's programs on livelihood.

Processing: In the Philippines, meat processing of goat has not yet been established as an industry. Goats brought to the slaughter houses are butchered and the parts are classified. Then, they are distributed fresh to meat vendors in the market.

Supply Chain: In Maguindanao, goats are gathered by middlemen or farmers and are brought to the market on market days. Meat vendors purchase them directly from the farms, bring them to Cotabato City, butcher them in a slaughter house and distribute them to the market vendors.

Marketability: There is an increasing demand for goats. Although the total goat inventory in the country is steadily increasing at 2% per year, supply is still not meeting current demands. It is expected that this increased demand will continue until 2020, the year when supply is finally projected to meet such demand.

Main Issues on Livestock Products:

The main issues on livestock sector are almost same in the whole region and for all types of livestock in the ARMM. The common issues on livestock industry in the region are:

- (1) Low productivity
- (2) Difficulties in accessing technical support channels
- (3) Lack of market linkage and consolidation

Low productivity is the biggest issue and constraint in industry development. The issue is generally caused by these constraints like: i) lack of knowledge on feed management; ii) lack of livestock facilities such as housing, and iii) lack of knowledge on disease control and prevention. The majority of local farmers in the ARMM rarely have proper technical knowledge in raising livestock such as goat.

Basically, the livestock raising practices are almost the same in all provinces of the ARMM. Their practices are in small-scale and traditional style. Even though the overall livestock production of the ARMM increases, the production does not meet the local market demands in the region.

5-5 Prioritization of Products

5-5-1 Agriculture

Based on the analytical description in previous sub-chapters, evaluation of current situation of analyzed 11 products is summarized and tabulated as follows.

Summary of Evaluation of Current Situation of Analyzed Products

	Production	Production Technology	Processing	Supply Chain	Marketability	Total
Abaca	2	2	2	3	5	14
Bamboo	1	2	2	0	2	7
Banana	5	5	4	5	5	24
Cacao	2	3	2	4	5	16
Cassava	4	3	3	3	5	18
Coconut	2	2	2	4	5	15
Coffee	3	3	3	3	5	17
Mango	4	4	3	4	5	20
Mangosteen	2	1	2	2	4	11
Oil Palm	2	2	3	4	4	15
Rubber	3	3	1	2	4	13

Before setting prioritization criteria, banana, mango, and bamboo are discarded among the products to be prioritized. It is because that banana and mango are scored with more than 20 points in total and it can be said that these two commodities are leading industry especially for export market which is well established by the private sector. Therefore, the industries possess existing high potential to promote their own industries even without any intervention. Meanwhile, bamboo, which is evaluated lowest, has not yet reached the level of industry. This commodity still needs advocacy. Hence, priority is not provided for its intervention at this moment. As a consequence, abaca, cacao, cassava, coconut, coffee, mangosteen, oil palm and rubber are candidate products to be prioritized.

The following criteria are applied for prioritizing the eight products.

- i. Products are currently produced by smallholders in the ARMM and productivity is increased and quality is improved by introducing proper cultivation and post harvest technology under proper technical guidance by public and private sectors.
- ii. Small scale food processing and handicraft processing industries can be included for local industry promotion by consolidated producers' groups.

Comparing the eight candidate products regarding the above criteria, the potential of each candidate commodity is shown below.

Priority of the Candidate Products

Products	Satisfaction of criteria		Envisaged condition of the product to its industry	Priority
	i	ii		
Abaca	High	High	Conversion of fiber will contribute to income generation and vitalizing of the abaca related industry including export of raw material.	High
Cacao	Medium	Medium	Though cacao is somewhat a new product in the ARMM, it can vitalize the industry by producing more quality dried fermented cacao beans to meet the high international demand.	Medium
Cassava	High	Medium	Cassava can vitalize the industry through local Muslim processed products and other urban products like cassava cakes as food, and supplying starch in internationally high demand.	High
Coconut	High	High	Coconut can revitalize the industry with high-value processed products and stabilize farming by intercropping with other crops for diversification.	High
Coffee	High	Medium	Coffee, especially Robusta, can boost the industry more through productivity increase and improving quality of green coffee beans to meet the demand of private firms in the Philippines. Branding strategy also creates opportunity to link up with international market.	High
Mangosteen	Medium	Medium	Mangosteen will vitalize the industry by introducing proper cultivation and processed products such as jam, juice and supplemental food products. Mindanao 2020 recommends strategizing to increase mangosteen as raw material for dietary and alternative medicine as well.	Medium
Oil Palm	Low	Low	Oil palm will promote industry with large scale investment in the long term. Plantation type cultivation is necessary.	Low
Rubber	Medium	Low	Rubber will promote the industry with large scale investment in long term. Basilan provincial government promotes and supports rubber industry but this is a particular case.	Low

From the above analysis, abaca, cacao, cassava, coconut, coffee, and mangosteen are specified as prioritized products to promote local industry and then provinces are also specified for the each product as shown below.

Specified Provinces for the Priority Products

Priority Products	Maguindanao	Lanao del Sur	Basilan	Sulu	Tawi-Tawi
Abaca		x		x	
Cacao			x		
Cassava		x	x	x	x
Coconut	x	x	x	x	x
Coffee	x			x	
Mangosteen				x	

5-5-2 Fisheries

The comparison result of current situation' evaluation among fisheries products targeted in the potential product study is shown as follows.

Evaluation Scores of Priority Fisheries Products in the ARMM

	Production	Production Technology	Processing	Supply Chain	Marketability	Total
Abalone	2	2	1	3	5	13
Grouper	3	2	3	5	5	18
Milkfish	2	2	1	3	4	12
Mud Crab	2	2	1	5	5	15
Seaweed	5	4	3	5	5	22
Tilapia	3	3	2	3	4	15

According to the results of the potential product survey, generally, their scores of production and production technology tend to be low. On the other hand, their scores of supply chain and marketability tend to be high. It means that the productivity of the target products remain at low level by conventional production method and efforts, in spite of their high distribution and market potential. In processing of the target products, its scores also tend to be low. It indicates that the processing efforts and activities of these fisheries products are not common in the ARMM.

The product potential survey in this study results that all target fisheries products have high future potentials even though their volume of production and productivity are very low at the production places. In terms of the selection of priority fisheries products for local industry promotion in the ARMM, all target fisheries products should be considered as priority products to formulate their action plans in a master plan of local industry promotion. The priority fisheries products are expected to contribute to local economic development in all ARMM

provinces. The major producing provinces of the priority fisheries products in the ARMM are shown in the following table.

Target Potential Provinces of Priority Fisheries Products in the ARMM

	Maguindanao	Lanao del Sur	Basilan	Sulu	Tawi-Tawi
Abalone			x	x	x
Grouper	x		x	x	x
Milkfish	x	x	x		
Mud Crab	x	x	x		
Seaweed	x		x	x	x
Tilapia	x	x			

5-5-3 Livestock

The comparison result of current situation and evaluation among livestock products targeted in the potential product study is shown as follows.

Evaluation Scores of Priority Livestock Products in the ARMM

Target Products	Production	Production Technology	Processing	Supply Chain	Marketability	Total
Carabao	3	3	1	2	2	11
Cattle	2	3	1	4	4	14
Chicken	3	3	1	4	4	15
Duck	2	3	2	2	2	11
Goat	3	3	1	4	4	15

According to the results of the potential product survey, their scores of production and production technology tend to be low. On the other hands, their scores of supply chain and marketability tend to be high. It means that the productivity of the priority products remain low whereas they have high market potential. In processing of the priority products, its scores also tend to be low. It indicates that the processing efforts and activities of these livestock products are not common in the ARMM. Based on the analysis for the candidate products, the degree of priority is provided for each product. High priority is given to cattle, chicken and goat.

The provinces are specified for the potential products throughout the region as shown in the table below:

Target Potential Provinces of Priority Livestock Products in the ARMM

Priority Products	Maguindanao	Lanao del Sur	Basilan	Sulu	Tawi-Tawi
Cattle	x	x	x	x	x
Chicken	x	x	x	x	x
Goat	x	x	x	x	x

CHAPTER 6 MAIN CURRENT ISSUES AND CONSTRAINTS OF LOCAL INDUSTRY PROMOTION

6-1 Distribution of Infrastructures

6-1-1 Road and Land Transport

The most essential infrastructures in the existing and potential market area for commodities are the establishment and construction of good roads and bridges, complete infra-facilities inside the airports and seaports and efficient Roll-on/Roll-off transport system. Equally important are the construction of good gravel farm-to-market road.

(1) Bad road condition from farms to markets

The ARMM is essentially an agriculture rich region but bad farm-to-market road conditions greatly affect the trading process of farmers with the traders. During rainy season, even four wheeler vehicles cannot reach the farms and bring the farmers' produce to the markets. But even if they can take these agricultural products, there is a high spoilage rate due to the big bumps and bulges of the farm along the way to market roads.

(2) Inadequate RORO Transport System

RORO (Roll-on/Roll-off) system enables efficient cargo transport but it was observed that the current cargo handling method in Port Polloc, major port in Maguindanao province is still the conventional system using the Load-On/Load-Off Method. On the other hand, in RORO, they use wooden pallets and forklifts to load and unload the cargo.

6-1-2 Physical Distribution Facilities

(1) Inadequate local transportation facilities for agricultural products (consolidation point/local market)

The consolidation area which is accessible to both farmers and traders/wholesalers can serve as a trading or auction zone but limited in the ARMM. There is also a problem of shortage of cold storage in local market.

(2) Need to improve fishing port facilities

There are coastal barangays and municipalities that have no community fishing ports for the immediate access to and distribution of aquatic and marine harvests. Small fishing ports do not have the equipment and capabilities of major fishing ports such as refrigeration buildings and utilities. Cold storage facilities are also very limited in local market.

(3) Need to improve facilities for livestock

There are several problems related to the facilities for livestock as follows. i) inadequate or

no provision of hygiene and sanitary facilities, ii) inadequate drainage and sewerage systems, iii) inappropriate waste disposal and waste treatment facilities, and iv) shortage of cold storage.

6-2 Finance

Although several MFIs and financial cooperatives are interested in expanding the operations in the ARMM, there are several challenges for such expansion and they are as follows:

(1) Insufficient capacity and fund of MFIs and cooperatives

There are needs to strengthen the capacity of MFIs and cooperatives including new product development, overall management, handling clients and risk management, and organizations' systems. Many cooperatives need to be strengthened their financial and administrative capabilities and governance. Insufficient fund is also a challenge for several MFIs and cooperatives.

(2) Mismatch of loan product design and demand

The product design still does not meet the actual situation and needs of farmers and fishermen such as their cash flow and income cycle. The built-in methodologies of MFIs exclude potential clients in the agriculture and fisheries sector. The methodology also has gender bias, targeting women over men. For MSMEs, MFIs do not cater for their loan needs more than Php 150,000 and longer terms due to their design/policy of maximum loan amount and loan terms. Although the Land Bank and the Development Bank of Philippines have relative big amount of loans for MSMEs, long processes and stringent document requirements by these banks prevent them to avail the loan package.

(3) Security problem

Although MFIs take actions to hire local staffs who understand the political, social and cultural situation of the area to anticipate problem, there are limitations for their entrance to risky areas.

(4) Insufficient infrastructure and difficulties to access to remote areas

Infrastructure and access to remote areas are major considerations of MFIs in its expansion plans. Good road networks and the availability of regular transportation allow the MFI to travel faster and safely from its office to field locations.

(5) Low level of economic activities in remote areas

MFIs set criteria for number of clients in the area to start operation. If there are very few businesses or prospective clients, MFIs cannot tap into the area because the operation will not be financially sustainable.

(6) Past bad records of cooperatives

The Land Bank experienced bad debt or non-collection of past loans to many cooperatives in the ARMM, which has made the bank take stricter stance in providing loans in the region.

(7) Insufficient financial management capacity of people

The dole-out mentality still prevails in many local residents and with their insufficient capacity in financial management makes it difficult for MFIs and cooperatives to implement commercial financing.

6-3 Quality Control (Sanitation)

According to the survey, the ratio of the food related organizations with some certificates which prove a certain level of hygienic work environment is low in the ARMM. In the food related industry, the hygienic work environment is a prerequisite condition of the quality control, especially for those who want to grow and expand the markets in different areas. The main issues and constraints leading to low quality control are analyzed as follows:

(1) Insufficiency in knowledge

Most food related organizations are operated on the family base, and they utilize traditional know-how for food processing and for hygiene without incorporating modern technological knowledge.

(2) Immature administrative preparedness

The City Health Office provides the hygienic guidance to the food handlers twice a year, but the main targeted organizations are the current restaurant operators, caterers, etc. but not the food processors who manufacture the processed food to be sold to unspecified consumers.

The ARMM is not prepared to provide the hygienic guidance to the food related organizations, but the number of staff involved is not sufficient.

(3) Expensive fees for the certificates

Fees for acquiring and maintaining the relevant certificates are rather expensive for the family or organizations operating in the ARMM.

(4) Shortage of financial base for facilities

Many families operating business organizations have no sufficient financial base to spend for the facilities not directly connected with the processing but important to improve the hygienic conditions.

6-4 Organizational Strengthening/BDS

The major issues on organizational strengthening and BDS are as follows.

(1) Difficulty of access to BDS for producers' group

Most of enterprises operating in the ARMM hardly accessed to BDS in the past, because the DTI and CDA conduct these trainings only on ad-hock basis. Although a lot of private organizations provide BDS services, the financial constraints prevent the producers groups from accessing.

(2) Immature Management Capacity of producers' group

A majority of producers' groups has a serious problem related to their management skills. The major problem areas included are accounting, marketing, and group management.

(3) Insufficient BDS trainings by provincial DTI officers

DTI has a mandate to provide BDS to any business group within their coverage areas, and its technical staff is allocated in each provincial office. However, these provincial personnel hardly conduct BDS to address the producers' group problems.

(4) Difficulty to complete re-registration as a cooperative

As the new act of R.A. 9520 was introduced³, many cooperatives failed to renew their re-registrations after a series of screenings by CDA. Major challenges for cooperatives are the difficulties to amend the cooperative codes and to prepare the financial statements.

6-5 Halal Industry

(1) Low production volume, productivity and poor quality of potential halal products

Although there are many agriculture/fishery/livestock products which can be promoted as halal industry products, there are several constraints such as the limited volume of production, low productivity, and poor quality to meet the demand in the market. . Similar observation was made in the processing and quality control category.

(2) Limited and inaccurate knowledge on halal concept and certification

Since majority of the ARMM residents are Muslims, it is assumed that they are familiar with the halal concept. However, it is commonly observed that their knowledge on halal certification is limited and often inaccurate, due to limited information dissemination activities for promotion of halal certification in the region.

(3) Limited implementation activities for promotion

³ Republic Act 9520: An act amending the cooperative code of the Philippines to be known as the "Philippine Cooperative Code of 2008"

Although the promotion policy and institutional set-up on the development of halal industry have already been identified by the ARMM government, the positive tangible outcomes are rarely seen on the practice level attributed mainly to few implementation activities except for advocacy campaign, There is a low level of implementation activities.

(4) Short supply of necessary resources and support facilities for promotion activities

Necessary resources and support facilities in each sphere for halal industry promotion, as mentioned above, are in the state or condition of either short of supply or not readily available, including capable human resources such as experts on each technology/administrative matter, finance and formulation of sustainable institutional arrangement.

(5) Additional needs for joint and comprehensive approach

Due to interrelationship of the major issues and constraints mentioned above, it might be very unfair to tackle each subject separately from the viewpoint of overall sustainable halal industry development. It is now necessary to implement joint operations in real terms for promotion of halal industry in the ARMM.

CHAPTER 7 RECOMMENDATIONS FOR LOCAL INDUSTRY PROMOTION

7-1 Vision and Objectives

With higher population growth rate of the ARMM which is more than twice the average rate of Mindanao, lower economic growth will aggravate the poverty situation in the ARMM and widen the economic gap with other regions in Mindanao. This situation will pose further risks for peace and order problems in the ARMM and Mindanao, since poverty is considered as one of the major constraints for conflict resolution and reduction of crimes such as kidnapping.

On the other hand, the ARMM region is blessed with rich natural agriculture and marine resources such as large fertile land as well as abundant young labor force and they are subject to less natural calamities such as typhoon. In addition, there are large and growing potential markets and unmet regional demand for their agriculture, fisheries, and livestock products. In fact, most of the investment and enterprises in the ARMM are agriculture and fishery based. There are limited number of small-scale manufacturers which market their products including coffee, rubber, dried fish and seaweeds to neighboring regions and even to Manila and Cebu. However, they have challenges of shortage or unstable supply of raw material. There are limited success in manufacturing sector in the ARMM such as coconut oil, and corn and cassava starch. Therefore, it is recommended to promote the industry based on the comparative advantage of the ARMM, which are agriculture and fishery products utilizing natural resources.

However, various challenges were identified which are: i) unstable peace and order, ii) insufficient infrastructure, iii) very low level of technology/ knowledge/ know-how/ procedures from production to sales, iv) lack of access to finance, v) very few investments from inside and outside of the ARMM, vi) distances to large consumer markets, and vii) social psychology of people as victims and dependents and lack of developmental will and entrepreneurship.

Therefore, how to promote these potential industries is critical not only for the ARMM government, but also for Mindanao Region and for the Philippines. What is required most is strategic and efficient utilization of the available resources and opportunities. The current low productivity of the primary industry indicates that there are huge potential to improve the productivity, increase the production, and improve income situation of poor farmers and fishermen who consist more than 60% of the labor force in the ARMM. They can start or strengthen processing these primary products to add values and tap into emerging markets for the processed products within and outside of the ARMM.

The study recommends the approaches which are: i) enhanced involvement of communities and strengthen their capacities; ii) building corporate partnerships and public-private partnerships; and iii) stronger enabling policy and business environment by regional and LGUs governments.

Based on the study analysis, the Vision and Objectives for Local Industry Promotion in the ARMM for the next ten years is set as below. The targets are small-scale local farmers and fishermen and promotion will be carried out with using appropriate technologies which can be utilized by these farmers and fishermen. They have to be trained for their technology, skills, as well as entrepreneurship and their access to finance should be improved. Possible market will be local and other potential markets which will be carefully selected based on the security situation and promoted in collaboration with other stakeholders.

Vision:

To achieve stable and sustainable economic revitalization in the ARMM region with main focus on agriculture, fisheries and livestock sectors, and to contribute to reducing poverty embedded in small-scale agricultural and fishing villages.

Objectives:

- 1) Formulation of localized small-scale enterprises with specific target in the neighborhood areas and local villages.
- 2) Organization of possible enterprises with careful considerations of unstable security situation and limited infrastructures in the ARMM.
- 3) Application/Utilization of techniques, knowledge/information, approaches and strategies most suitable to the ARMM's socio-economic and historical background.
- 4) Promotion of local industry that can be sustained by local farmers and fishermen as key actors, and with small financial investment.
- 5) Full utilization of local resources available within and outside the ARMM.
- 6) Promotion of entrepreneurships among small-scale farmers, fishermen, processors and marketers in the ARMM.
- 7) Promotion of Government-Private Industry-Academic cooperation, and furthering LGU inclusion to broaden partnerships

7-2 Proposed Strategies to the ARMM Government and Relevant Stakeholders

To achieve the objectives above, the strategies are proposed for (1) Production and Processing, (2) Product distribution/Infrastructure, (3) Marketing, (4) Finance, and (5) Organizational Strengthening/BDS.

7-2-1 Production and Processing

7-2-1-1 Agriculture

Strategy of agriculture sector is structured as follows to tackle the issues on i) low productivity and low quality of raw material, ii) slow pace of dissemination of appropriate intercropping for crop diversification, iii) quantitative and qualitative loss during post-harvest operation, iv) limited activities of food and handicraft processing, and v) vulnerable capacity of extension of ARMM government institutions.

- (1) Increase productivity by introducing appropriate farming technology and maximizing use of on-farm resources as inputs to reduce production cost such as compost.
- (2) Improve quality of products through pre and post-harvest operations by introducing appropriate farming, proper harvesting method and collective use of modified post-harvest machinery and facility.
- (3) Capacitate extension ability of the ARMM government through activities such as implementing nursery farm, compost farm and demonstration farm, conducting Training of Trainers (ToT), and On-The-Job (OJT) trainings.
- (4) Link producers and cottage level processors with reference cases in and outside of the ARMM to sensitize and expose producers and consolidated groups to knowledge and practical experiences on production and processing.
- (5) Support producers and processors with finance through financial institutions in obtaining inputs in farming, equipment and facilities for small-scale processing business.

7-2-1-2 Fisheries

There are the issues in the fisheries sector in the ARMM which are i) low productivity of fisheries products, ii) unstable quality of fisheries products, iii) insufficient seed supply, iv) establishment of extension coordination structure for fisheries product promotion, and v)

introduction of micro-financial schemes. To cope with these issues, proposed strategies focus on productivity, quality control and seed supply.

- (1) Improve the productivity of fisheries products: Properly improved skills and methods for production and processing of fisheries products should be introduced to increase their production volumes and productivity, which will contribute to promoting their distribution to consumption markets.
- (2) Introduce quality management of fisheries products: In order to sell the fisheries products at higher and stable prices, the quality of fisheries products must be controlled under certain standards. It is necessary for local producer groups to check the quality of fisheries products regularly, and maintain production or processing procedures.
- (3) Improve seed supply condition: Only three public hatcheries are placed in the ARMM. To strengthen the capacity of seed production and compensate local seed demands, the hatchery's facilities should be rehabilitated and extended.

7-2-1-3 Livestock

Many farmers are engaged in livestock industry in the ARMM but livestock raising is predominantly a backyard endeavor. Major issues in the livestock production in the region are i) low productivity of livestock due to insufficient knowledge and facilities of farmers, ii) insufficient knowledge about the time of sell the livestock, iii) very limited activities of livestock processing, and iv) lack of access to technical support concerning veterinary services. In the livestock sector, the first priority is to increase livestock production in the ARMM, before going into processing. Therefore, livestock farmers need to improve their farming techniques through technology transfer activities provided by technicians of related organization and offices. Accordingly, following strategies of livestock sector are proposed to tackle the above issues;

- (1) Provide required technical extension activities to small-scale farmers to increase their productivity by introducing appropriate livestock technology.
- (2) Improve market channels for livestock by grouping producers. This will lead to more advantageous and direct sales to the market.
- (3) Strengthen the veterinary services by utilizing the livestock's extension program by DA.

7-2-1-4 Quality Control (Sanitation)

The constraints which seem to hinder the improvement or modernization of the hygienic environment of the work place in the food related organizations in the ARMM are: i) insufficiency in knowledge on hygiene management, ii) immature administrative capacity, iii) expensive fee for acquiring and maintaining the certificates, and iv) shortage of financial base.

The items i) and ii) will require some organized program on a long term basis. Therefore, the following strategies are proposed.

- (1) Establish and operate a body which will continuously educate, instruct and give guidance to the food related organizations in the ARMM in terms of hygiene.
- (2) Make the food related organizations recognize the importance of having the hygienic work environment and assist them in acquiring sanitary permit, License to Operate (LTO) and/or halal certificate.

7-2-2 Product Distribution/Infrastructure

Major constraints for physical distribution facilities were i) inadequate local transportation facilities, ii) need to improve fishing port facilities, and iii) need to improve facilities for livestock. To cope with these constraints, it is necessary to identify and prioritize the needed facilities for industry promotion of priority products. The study proposed the following strategies.

- (1) Improve distribution facilities and infrastructure in local farming and fishing communities, e.g., local markets, cargo pick-up points, and local roads.
- (2) Install storehouses in cargo pick-up points to prevent product deterioration during a distribution process.
- (3) Reinforce existing community-based infrastructure.

7-2-3 Marketing

Each potential product of the ARMM has a market opportunity to meet a growing demand within and outside the region. Whereas most products will first target the regional market, some of them have potential to expand the market nationwide or overseas. However, marketing activities in this region have the issues of i) less opportunity to know market information and ii) limited sales channel.

The ARMM government needs to help local producers to improve marketability of their

products by providing them with more access to market information and opportunities to extend their sales channel. DTI needs to build their capacity of marketing promotion to take a major role in implementing marketing strategies. To put these strategies into action, the following measures shall be undertaken:

- (1) Identify market needs and improve local producer's access to market information, e.g. by installing satellite shops and enhancing the provision of market information.
- (2) Support producers to extend sales channel of their products through business matching, trade fairs and seminars.
- (3) Optimize the above-mentioned strategies on (1) and (2) in accordance with the range of their targeted market, i.e., regional, domestic and overseas market.

Marketing promotion can't be successful without improving products to meet the market needs and for providing a stable supply of products. Thus, marketing promotion should be implemented in close collaboration with other strategies in this master plan.

7-2-4 Finance

There are a very limited number of financial institutions and their coverage in the ARMM. However, there have been positive developments in the region such as high repayment rates by the MFIs, their interest in expanding their services, and existence of possible support by government financial institutions. Philippine government endorses the international movement to expand the financial access to all, called "financial inclusion". The Philippines is the most developed in terms of mobile phone banking in Asia. However, there are several challenges for expansion of financial services in the ARMM, which include i) mismatch of loan product design and demand, ii) insufficient capacity and fund of MFIs and cooperatives, iii) security problem, iv) insufficient infrastructure and difficulties to access to remote areas, and so on.

The following strategies are proposed to promote finance for the ARMM in particular for small-scale farmers and fishermen.

- (1) Promote financial services by financial institutions.
- (2) Promote financing systems/services utilizing existing value chain actors such as processors and traders.

Strengthen cooperatives and production groups for their savings and credit activities

7-2-5 Organizational Strengthening/BDS

The primary constraint in BDS is a very limited access to the services due to insufficient capacities of BDS service providers including DTI. If the technical staff in DTI can obtain enough opportunities to practice their skills, they would become good practitioners. Moreover, many producers' groups still face constraints of accesses to information about the BDS providers. Weak management capacity of producers' groups and lack of skills including accounting, marketing, and group management remained unsolved. Weak management capacity of producers' groups and lack of skills in accounting, marketing, and group management remained unsolved. Another critical issue in the ARMM is how existing cooperatives can pass the strict re-registration processes that CDA is currently conducting for all the cooperatives. The Study team suggests following strategies for these issues.

- (1) Promote leadership among local farmers and fishermen, and enhancement of group activities.
- (2) Promote formation of cooperatives and reinforce existing cooperative activities.
- (3) Strengthen organizational activities that will increase and stabilize production by small scale farmers and fishermen with appropriate quality control.
- (4) Promote entrepreneurships by offering basic business knowledge e.g. business planning, accounting, financial management and monitoring strategies.

7-3 Other Recommendations to the ARMM Regional Government

In addition to the proposed strategies above, the following are recommended to the ARMM government based on the analysis of current policies, regulation, programs and business environment in the ARMM.

(1) Introduction of performance management system

Strategic and efficient utilization of the resources, potentials and opportunities is essential for industry promotion. However, it is observed that current programs by the regional government for industry promotion are not fully utilizing the available resources, mainly due to insufficient budget and planning with proper targeting of beneficiary groups, monitoring, and evaluating these programs and operations. Therefore, it is highly recommended that RPDO requests relevant institutions such as DTI, DAF, BFAR, DOST and CDA to include their performance targets and outputs in their annual and quarterly plans, monitor the progress and submit to RPDO their annual performance report.

Strengthened capacity of project management of plan - do - see by relevant institutions will definitely lead to efficient and effective projects and programs implementation and produce the results, such as increased income by producers and businesses and poverty reduction.

(2) Strengthen the linkages with national and regional programs for industry promotion

The ARMM makes its own policies and budget for industry promotion and there are the cases that DTI cannot join the national & Mindanao industry programs and activities. Concern has been raised about the widening gap in industry promotion activities with other regions, although there are various opportunities for collaboration. Therefore, it is strongly recommended for the ARMM government to strengthen the linkages with national, regional, and neighboring regions' institutions to utilize the available opportunities for local industry promotion.

(3) Improve business environment in collaboration with LGUs

The analysis of investments registered at RBOI and the business study results revealed that in addition to capacity development of the enterprises, it is important to improve business environment, in particular, finance, infrastructure, transportation, security, support system by LGUs, and the clarification of land titles. Since most of these issues should be tackled by LGUs, it is expected that the regional government will direct the municipal and provincial LGUs into taking actions. Recommended specific measures include; i) strengthen security efforts to stop increasing trend of crimes in Basilan (in particular Lamitan City), Sulu, and Lanao del Sur (in particular Marawi City) by respective provincial and city governments, ii) implementation of investment promotion programs for LGUs, including Network Investment for Local Executives (NILE) initiated by RBOI, iii) DILG will facilitate updating Local Governance Performance Measurement System (LGPMS) by LGUs and sharing the experiences of active LGUs, iv) facilitation of registration of Business Permit by LGUs and BNR (Business Names Registration) by DTI, and v) analysis of the actual cost of transportation from Cotabato to Manila by sea and land including possible unseen costs.

(4) Take measures to strengthen the institutions and activities for further promotion of halal industry

The major internal constraints for halal industry promotion are low production volume, low productivity, and poor quality control of the products. The following challenges must be addressed for halal industry promotion in the ARMM.

- 1) To address the challenges, the other parts of this study have already identified priority products and have presented methods to increase the volume of production, improve productivity, and realize effective quality control.
- 2) Direct intervention of the DTI or other relevant departments and offices of the ARMM is urgently needed to strengthen the institutional capacity and reactivate halal certification and

dissemination activities pursued by the MMHCBI for the private sector.

- 3) It is critical to provide sufficient and real inputs such as operational funds, human resources with advanced technical capability, and construction of administrative management and operation facilities. Concrete activities such as technical training on the halal certification procedure and dissemination activities are also required.
- 4) It is advisable to establish a sustainable, comprehensive command and coordination mechanism with middle- and long-term perspectives. This formula can be applied either by reactivating or reorganizing the present institutional arrangements.
- 5) The ARMM government must develop concrete measures to support halal certification activities in the processing, distribution and financing stages with middle- and long-term perspectives. The study recommends to accumulate implementation cases of small-scale halal certification for a while, and then to develop comprehensive measures of halal certification on each of the priority products at a later stage.
- 6) It is evident that the major cities and regions of Mindanao have become aware of the various advantages of the halal industry. These local government bodies and the private sector have started active involvement in halal industry development. Therefore, it is strongly recommended to immediately implement the existing plans and measures by the initiative of the ARMM government and relevant organizations such as the MMHCBI and the ABC.
- 7) The national accreditation of halal certification organizations may be further delayed because the preparation of the Halal Accreditation Guidelines by the NCMF has not been completed. To avoid such delays in the future, it is recommended that the ARMM government, MMHCBI and/or other relevant authorities initiate immediate constructive measures. These measures include close coordination with the NCMF to expedite the criteria formulation process and other related procedures.

7-4 Consistency with Other Development Strategies

The above proposed strategies correspond to the strategies defined in the Regional Development Plan of the ARMM (2011 - 2016), the Mindanao 2020 Peace and Development Framework, Philippine Development Plan (2011 - 2016), and MSMED Plan (2011 - 2016).

7-4-1 Consistency with the Regional Development Plan of the ARMM (2011-2016)

The plan proposed at the mission which includes sustainable economic, political and socio-cultural gains. To achieve the goal, several strategies for economic development are identified and the following strategies are in line with the proposed strategies in this study, which are: i) harness the rich resources such as seaweed, coconut and cassava, ii) strengthen

economic trade and investment relation with Muslim countries, iii) enhancement of entrepreneurial skills and institutional mechanisms of MSMEs and cooperatives, iv) institutionalize Halal Industry-led region by promoting processing and quality control, v) intensify scientific and technology application, and marketing , vi) strengthen cooperative management through saving mobilization and capacity enhancement, and vii) installation and upgrading of infrastructure support facilities. The action plans in this study will assist the ARMM regional government to translate these strategies into actions in the fields.

7-4-2 Consistency with the Mindanao 2020 Peace and Development Framework

Under the vision of improved quality of life through a peaceful and sustainably developed Mindanao, five themes were stipulated. There are many areas of the proposed strategies which are common to the economic themes of Mindanao 2020. First, the Mindanao 2020 focused on potential sectors and industries, which include seaweed, fisheries and marine culture in Archipelago, organic farming and processed tropical fruit in land based area of Mindanao. Second, their strategies include “Enhanced and more inclusive value chains” such as SME food processing of seaweed, “Enterprise development focusing on MSMEs”, “Inclusive world-class agriculture and agribusiness”. Since there are common prioritized products such as seaweeds, fisheries, and organic farming, the proposed strategies can be implemented in collaboration with and support from MinDA and other regions in Mindanao.

7-4-3 Consistency with the Philippine Development Plan (PDP) 2011-2016

The PDP aims at “inclusive growth” that creates jobs, draws the majority into the economic and social mainstream, and continuously reduces mass poverty. Therefore, it is expected that the plan will assist the people in the ARMM, one of the poorest regions in the country, to benefit from the inclusive growth of the nation. There are many areas where the proposed strategies share with the PDP, which are as follows: i) support to MSMEs such as provision of BDS, access to finance, and market expansion, ii) raise productivity and incomes of agriculture and fishery based households and enterprises, iii) increase investments and employment across an efficient value chain, and iv) transform agrarian reform beneficiaries (ARBs) into viable entrepreneurs. There are also common potential products identified such as coconut, mangosteen, abaca, coffee, grouper, and seaweed. Therefore, there are possibilities that the proposed strategies can be implemented in collaboration with the national government under PDP.

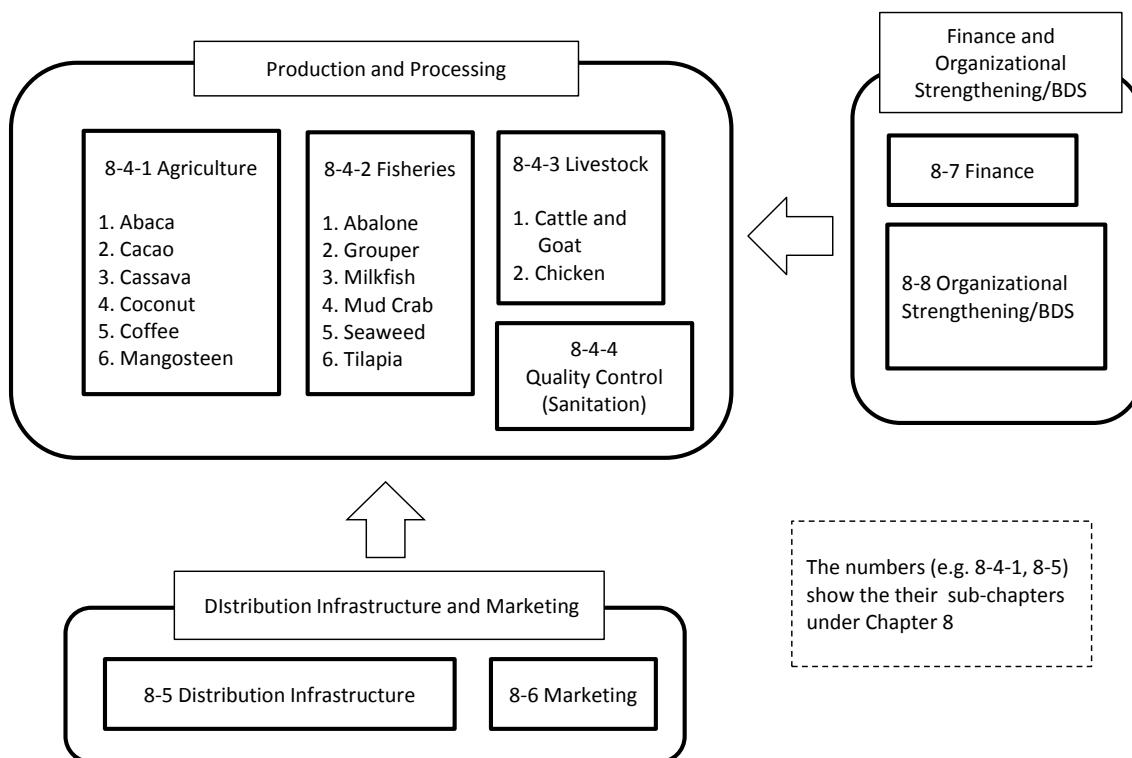
7-4-4 Consistency with the Micro Small and Medium Enterprise Development (MSMED) Plan 2010-2016

The four Outcome Portfolios in the MSMED plan are i) Business Environment such as institutional support for MSMEs and entrepreneurship promotion, ii) Access to Finance, iii) Access to Market, and iv) Productivity and Efficiency such as appropriate skills and attitudes by MSMEs, greater productivity, and compliance with international quality standards. Since there are many common areas to be pursued by the MSMED Plan and the proposed strategies, it is highly recommended that the ARMM government will closely work with DTI to utilize possible opportunities provided by the national government for MSME Development.

CHAPTER 8 ACTION PLANS FOR LOCAL INDUSTRY PROMOTION

8-1 Composition of Action Plans

The composition of action plans in Chapter 8 is as follows.



This study principally selects three priority sectors: agriculture, fisheries, and livestock. Quality Control is closely related to processing and its action plan is explained under the framework of production and processing. As important cross-cutting issues to boost production and processing, the study team identifies major components, which are Distribution Infrastructure, Marketing, Finance, and Organizational Strengthening/ BDS.

In addition, these action plans are categorized by the needs of major technical and financial supports for implementation. In order to enhance feasibilities of action plans in various given situations, the study team envisions three possible supporting bodies for technical and financial inputs, namely: the ARMM government, donor agencies and private investors as shown below. It should be noted that even when donor agencies and private investors will be the major supporters, the proposed plans will be implemented by the ARMM government which will provide necessary inputs such as counterpart personnel and other logistics. These personnel and

logistics will be based on the needs of these plans. In addition, these are just possible indicators to select appropriate action plans referring to the availability of these partners, which will work with the ARMM government.

The Categories of Action Plan by Major Supporters

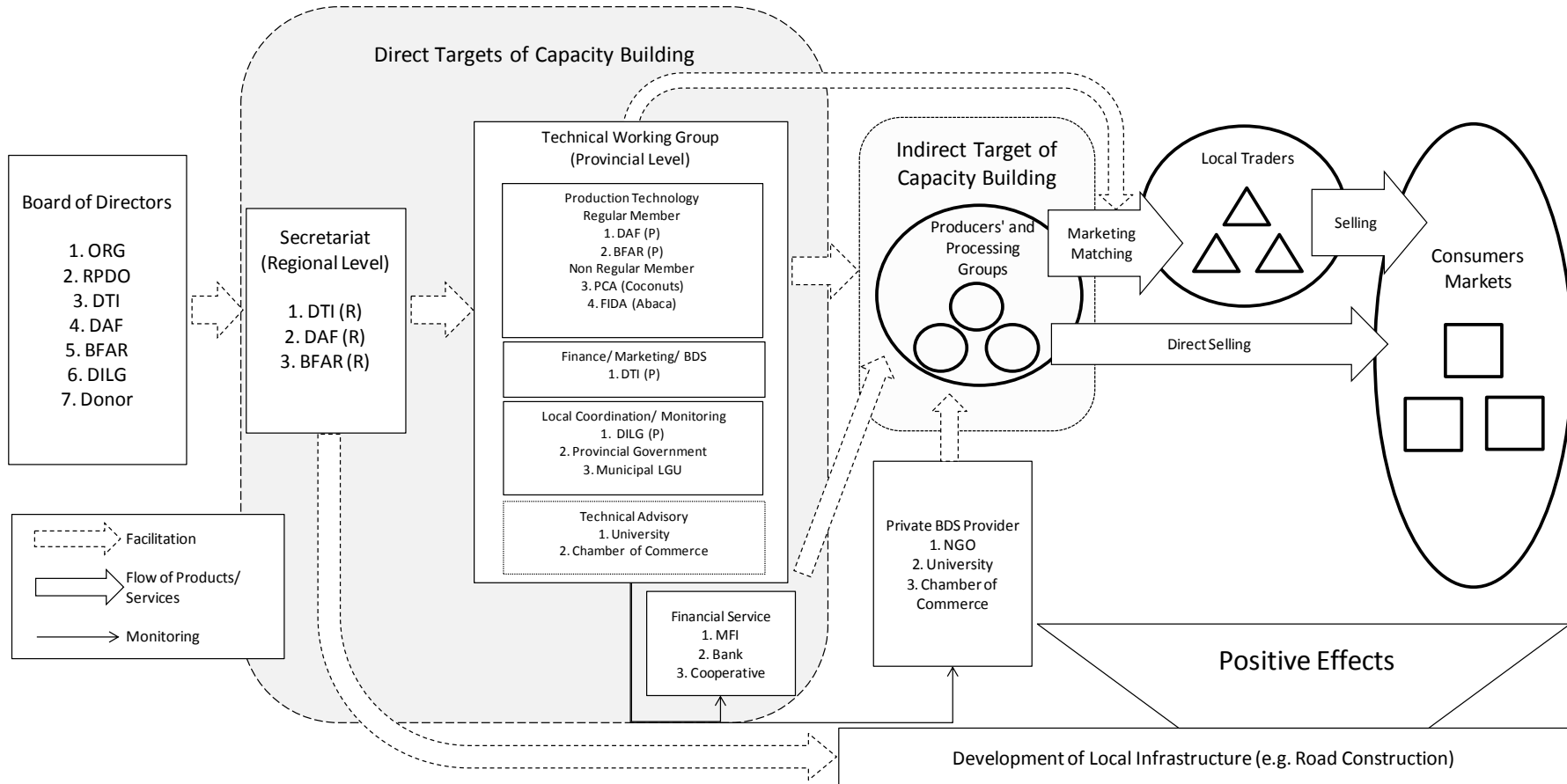
	Major Technical and Financial Supporters	Action Plan
1	ARMM	8-4-1 Agriculture 8-4-2 Fisheries 8-4-3 Livestock 8-4-4 Quality Control (Sanitation)
2	Donor Agencies	8-5 Distribution Infrastructure 8-7 Finance 8-8 Organizational Strengthening/BDS
3	Private Investors	8-6 Marketing

Action plans for Agriculture, Fishery, Livestock and Quality control were designed with envisaged major technical and financial supports by the ARMM government. If the donor agencies are interested in working for local industry sector with the ARMM government, the government can consider the sectors which require support from donors. These sectors are Distribution Infrastructure, Finance and Organizational Strengthening/BDS. Again, supports by donor agencies are not pre-condition, but the Study proposes the priorities among sectors for outside supporters. For action plan of Marketing, private investment should be a vital input for implementation.

8-2 Implementation Structure of Action Plan

The action plans are explained on a sector basis in this chapter. Financial services, marketing, and BDS, are vital inputs to boost production. In addition, marketing and infrastructure are significant foundations for industry promotion. In order to create synergy effects through integration of these action plans, all the lead agencies should set up a management structure. The chart below shows a sample implementation structure under the situation that a project covers multi-sector components, such as production, financial services, BDS, etc.

Sample Implementation Structure Plans for Local Industry Promotion in the ARMM



The board of directors is the supreme authority for determining the general direction of the project and coordinating lead agencies. The members of the board of directors are expected to be secretaries of relevant government agencies. Since the board is not expected to hold frequent meetings, the project will set up the secretariat to manage all the operations. In addition, as a project implementing body, a technical working group will provide technical inputs to producers' and processing groups.

8-3 Key Roles of the ARMM Government for Implementing Action Plan

Action plans proposed in this chapter are mostly managed by relevant departments of the ARMM government such as DTI, DAF, BFAR, RBOI and so on. However, they are not yet fully equipped with management skills though their autonomy should be respected by any third party which might be able to support the government in implementing the plans. Key roles of the different departments of the ARMM in the action plans, including coordination and management skills, must affect the success of the action plans during the implementation.

8-4 Production and Processing

8-4-1 Agriculture

8-4-1-1 Abaca

Title: Abaca Industry Development to Improve Living Conditions of Abaca Producers through Development of Small-Scale Fiber Craft Products in the ARMM

Purpose: To improve the living standard of small-scale abaca farmers through quantity and quality improvement of abaca production and to lift up socio-economic status of cooperatives and/or women's groups through vitalizing abaca fiber handicraft industry as small-scale value added processing industry.

Target: Out of the 25 most active abaca production municipalities which are mostly located in the mountainous areas of second district of Lanao del Sure, two LGUs are selected in pilot phase. In the following phase, five LGUs in Lanao del Sur and island provinces are to be targeted.

Major Outcome/Impact:

- (1) Gross income from abaca fiber per ha becomes Php 105,000 with the following assumptions: i) yield of abaca fiber is 3,000kg/ha-year, ii) farm gate price is Php 35/kg, and

iii) 100% harvesting share of the land owner.

(2) Yield of abaca becomes 3,000 kg/ha-year at 5th year after planting.

Major Activities:

- (1) Preparation and management of the Project and holding abaca summit.
- (2) Technical instruction to abaca growers.
- (3) Improvement of post-harvest processing by introducing group utilization of stripping machine.
- (4) Encouragement of quality assurance awareness among supply chain stakeholders.
- (5) Introduction of conversion technology of fibers.

Management: DAF coordinate the overall activities with FIDA. DAF and FIDA also collaborate with the LGUs of priority municipalities to conduct the field activities of abaca production. BUAD Agriculture School and Mindanao State University College of Agriculture technically support the activities. Private sector's resources are also utilized.

8-4-1-2 Cacao

Title: Promotion of Cacao Industry for Small-Scale Farmers in the ARMM

Purpose: Cacao industry is activated in the ARMM through introducing appropriate cacao cropping system and post-harvest processing technology to produce and deliver quality cacao beans to the markets.

Target: A potential cooperative that plans to start cacao production can be a target at first as a model case for farmers or cooperatives to develop cacao industry. Besides, farmers holding 2 to 3 ha farm land with possibility to intercrop cacao with other crops like coconut or cooperatives which have interest on cacao production will be included in the Project as well.

Major Outcome/Impact: Annual gross income in the 5th year of smallholder is Php 108,000 per ha with the following assumptions: i) intercropping with coconut, ii) planting density of 600 trees per ha, iii) fermented dry beans productivity of 1,200kg per ha, iv) 20% loss, and v) selling price at Php 100 per kg.

Major Activities:

- (1) Preparation and management of the Project.
- (2) Preparation of extension work for cacao production and propagation of seedlings.
- (3) Training for propagation and cropping system for newly starting cacao production.
- (4) Introduction of post-harvest facility and technical instruction for quality dried and fermented beans.
- (5) Monitoring of field activities and effect of training and evaluation.

Management: DAF coordinates the overall activities. It also collaborates with the LGUs of municipalities to conduct the field activities of cacao production. University of Southern Mindanao technically supports the activities. Cacao Agribusiness Zone Center, MARS Cocoa Development Center, and ACDI/VOCA are also involved as resource organizations.

8-4-1-3 Cassava

Title: Cassava Production and Processing Development to Improve Small-Scale Farmers' Standard of Living in the ARMM

Purpose: To improve the living standard of small-scale farmers through improvement of cassava cultivation and cassava-based value added processing activities.

Target: Three LGUs in the island provinces of Basilan, Sulu and Tawi-Tawi are the targets areas during pilot phase and five LGUs in Lanao del Sur and three island provinces are targets during the next phase.

Major Outcome/Impact: Annual gross income from cassava for the purpose of raw material supply for starch is about Php 90,000 with the following assumptions⁴; i) total roots yield is 32,000 kg/ha, ii) yield of dried cassava chips is 12,800kg/ha with 40% recovery, and iii) farm gate price at Php 7.00/ kg at assembly point.

Major Activities:

- (1) Preparation and management of the Project.
- (2) Dissemination of appropriate cassava cropping system and cultural management.

⁴ This is indicated by San Miguel Foods, Inc., Agribusiness Development and Operations Group, South Mindanao Operations, in May 2011.

- (3) Post-harvest technology improvement.
- (4) Introducing small-scale value added cassava processing.
- (5) Monitoring of field activities and effect of training, and evaluation.

Management: DAF coordinates the overall activities. It also collaborates with the municipal LGUs to conduct the field activities on cassava production. Philippine Root Crop Research and Training Center (PhilRootcrops) technically supports the activities. DOST and DOH also technically support on food processing.

8-4-1-4 Coconut

Title: The Appropriate Coconut-based Intercropping Farming and Value-Added Processing for Improvement of Small-Scale Farmers' Standard of Living in the ARMM

Purpose: To improve living standard of small-scale farmers through coconut-based intercropping and value added processing activities.

Target: Six LGUs in Maguindanao province will be targeted in the first phase and 18 LGUs in the next phase in the 5 provinces.

Major Outcome/Impact:

- (1) Annual income of coconut growing smallholders increases and exceeds Php 250,000 annually.
- (2) Coconut sugar processing from 5 ha yields an average annual net profit of Php 200,000⁵ for 10 years, with the following assumptions; i) 2 liters of coconut sap produced from a tree, ii) 500 trees planted per ha, iii) 1,000 liter sap is utilized to produce 118 kg of sugar, and iv) 118 kg of sugar is produced daily.

Major Activities:

- (1) Preparation and management of the Project.
- (2) Extension of appropriate coconut-based intercropping with recommended crops.
- (3) Accelerating fertilization to coconut and re-planting of appropriate variety.
- (4) Dissemination of coconut-based processing technology.

⁵ Profitability Analysis (No. 12/2010): Coconut Sap Sugar production Module, Philippines Council for agriculture, Forestry and natural Resources research and Development, Department of Science and Technology, 2010.

(5) Monitoring of field activities and effects of training and evaluation.

Management: DAF coordinates the overall activities with PCA. It also collaborates with the LGUs of municipalities to conduct the field activities. University of Southern Mindanao also support technically by providing human resources.

8-4-1-5 Coffee

Title: Coffee Industry Development in the ARMM through Production Increase and Quality Improvement for Marketable Green Coffee Bean Supply

Purpose: To promote coffee industry in the ARMM and improve living standard of coffee growing smallholders in the ARMM.

Target: One LGU in Maguindanao and another one in Sulu province in the first phase and five LGUs in five provinces in the next phase are targets.

Major Outcome/Impact: Coffee growing smallholders' annual gross income from coffee farming increases and it's average is Php140,000 per 1 ha with the following assumptions: i) 2-3 kg of production per coffee tree is achieved, ii) recovery of Grade I green coffee beans is almost 100% in dried weight basis, and iii) current buying price of Robusta is maintained.

Major Activities:

- (1) Preparation and management of the Project.
- (2) Improvement of coffee cropping system.
- (3) Rehabilitation of senile coffee tress.
- (4) Improvement of green coffee beans quality through recommended post-harvest processing.
- (5) Monitoring of field activities and effect of training, and evaluation.

Management: DAF coordinates the overall activities. It also collaborates with the municipal LGUs to conduct the field activities on coffee production. University of Southern Mindanao, and Nestle Experimental and Demo Farm in Tagum city can provide technical support.

8-4-1-6 Mangosteen

Title: Mangosteen Industry Development through Increasing Production by Appropriate

Cultivation and Introduction of Value-Added Processing in the ARMM

Purpose: To promote local industry through improvement of mangosteen production and introducing value added processing activities; hence, living standard of small-scale farmers is improved.

Target: Mangosteen producing areas of about 500 ha are specified as target areas considering security and production potential in Sulu province in the first phase and 500 ha of Maguindanao and Lanao del Sur provinces are to be target areas in the following phase since DAF distributed seedlings of mangosteen.

Major Outcome/Impact: Yield of mangosteen at about 3.5tons /ha of current level becomes 15 ton/ha.

Major Activities:

- (1) Preparation and management of the Project.
- (2) Preparation and conducting extension activities for appropriate mangosteen cultivation.
- (3) Introduction and technical instruction of value added processing to potential farmers cooperatives/groups and local entrepreneurs.
- (4) Monitoring of field activities and effect of training, and evaluation.

Management: DAF coordinates the overall activities. It also collaborates with the LGUs of municipalities to conduct the field activities on mangosteen production. University of Southern Mindanao and private sector such as Dr. Alfred Essentials Inc., can provide technical support.

8-4-2 Fisheries

8-4-2-1 Abalone

Title: Development of Abalone Culture to Improve the Living Standard of Coastal Communities in the ARMM

Purpose: Local production of abalone culture is increased by improvement of seed supply and introduction of backyard culture methods.

Target: 2-3 municipalities in Tawi-Tawi, and 1-2 municipalities in Sulu and Basilan, respectively.

Major Outcome/Impact: The production of cultured abalones in target provinces is expected to be 0.5-1.0 tons annually at a priority municipality in the project period. The expected economic impact in respective priority municipality is 250-500 thousand pesos per year.

Major Activities:

- (1) Selection of priority municipalities and model sites for abalone culture promotion.
- (2) Strengthening the capacity of abalone seed production at local hatchery (Lato Lato Marine Multi-purpose Hatchery, Tawi-Tawi).
- (3) Formulation of applied technical models of abalone grow-out culture by pilot projects.
- (4) Organization of local abalone farmers as local business groups at model sites.
- (5) Arrangement of financial schemes to support local abalone production.
- (6) Training programs of abalone culture for LGU officers and local farmers.
- (7) Monitoring and evaluation of field activities of local abalone production at model sites.

Management: BFAR mainly coordinates the overall activities with local consultants. BFAR also collaborates with the LGUs of priority municipalities and local financial institutions to conduct the field activities of abalone culture promotion. Lato-Lato Marine Multi-purpose Hatchery is a possible institute for intensive training programs. MSUs Tawi-Tawi and Sulu can cooperate in technical guidance to field monitoring activities and training programs.

8-4-2-2 Grouper

Title: Promotion of Grouper Culture to Improve the Living Standards of Coastal Communities in the ARMM

Purpose: The production of fresh and live groupers in the ARMM is increased with their higher market values.

Target: 2-3 municipalities in Tawi-Tawi, Sulu and Basilan, respectively and 1-2 municipalities in Maguindanao.

Major Outcome/Impact: The production of cultured groupers in the ARMM is doubled at the completion of the project. The regional economic impact is expected to attain 5.0-5.5 million pesos annually.

Major Activities:

- (1) Selection of priority municipalities and model sites for grouper culture promotion.
- (2) Strengthening of technical capacity of grouper seed production and locally-made feed development at the local hatchery (Lato-Lato Marine Multi-species Hatchery, Tawi-Tawi).
- (3) Formulation of applied technical models of grouper culture by pilot projects.
- (4) Organization of local grouper farmers as local business groups at model sites.
- (5) Preparation of fish cages for rent to fish farmers' groups.
- (6) Arrangement of financial schemes to support local grouper production.
- (7) Training programs of grouper culture for LGU officers and local fish farmers.
- (8) Monitoring and evaluation of field activities of local grouper culture production at model sites.
- (9) Support for the establishment of community-based fish landing places.

Management: BFAR mainly coordinates the overall activities with local consultants. BFAR also collaborates with the LGUs of priority municipalities and local financial institutions to conduct the field activities of grouper culture promotion. The Fisheries Training Centers of BFAR Region XI (Panabo) and IX (Zamboanga) are possible institutes for intensive training programs.

8-4-2-3 Milkfish

Title: Development of Milkfish Culture to Improve Living Standards of Coastal Communities in the ARMM

Purpose: The milkfish culture production is increased in the ARMM by introduction and extension of technically improved pond and cage culture.

Target: 2-3 municipalities in Maguindanao, Lanao del Sur and Basilan, respectively.

Major Outcome/Impact: The milkfish culture production in target provinces is expected to increase at 50% at the completion of the project. The economic impact to the ARMM is expected to attain about 540 million pesos annually.

Major Activities:

- (1) Selection of priority municipality and model sites for milkfish culture promotion.
- (2) Formulation of applied technical models of milkfish pond and cage culture by pilot projects.
- (3) Organization of local milkfish farmers as local business groups at model sites.
- (4) Arrangement of financial schemes to support local milkfish production.
- (5) Training programs of milkfish culture and processing for LGU officers and local farmers.
- (6) Monitoring and evaluation of field activities of local milkfish production at model sites.

Management: BFAR mainly coordinates the overall activities with local consultants. BFAR also collaborates with the LGUs of priority municipalities and local financial institutions to conduct the field activities of milkfish culture promotion. The Fisheries Training Center of BFAR Region XI (Panabo) is a possible institute for intensive training programs.

8-4-2-4 Mud Crab

Title: Development of Mud-Crab Culture to Improve the Living Standard of Coastal Communities in the ARMM

Purpose: Productivity and quality of cultured mud crabs in the ARMM are improved by an introduction of technically improved culture methods.

Target: 1-2 municipalities in Maguindanao, Lanao del Sur and Basilan, respectively.

Major Outcome/Impact: The production of mud crab cultured at brackish-water ponds will be doubled. The quality of harvested mud crabs at ponds will reach to export level. The economic impact is expected to attain 10-20 million pesos every year in the region.

Major Activities:

- (1) Selection of priority municipality and model sites for mud crab culture promotion.
- (2) Formulation of applied technical models of mud crab pond culture by pilot projects.
- (3) Organization of local mud crab farmers as local business groups at model sites.
- (4) Arrangement of financial schemes to support local mud crab production.
- (5) Training programs of mud crab culture for LGU officers and local farmers.
- (6) Monitoring and evaluation of field activities of local mud crab production at model sites.

Management: BFAR mainly coordinates the overall activities with local consultants. BFAR also collaborates with the LGUs of priority municipalities and local financial institutions to conduct the field activities of mud crab culture promotion. The field site of Aqua-Silviculture Demonstration Project (Parang, Maguindanao) is a possible place for training programs.

8-4-2-5 Seaweed

Title: Development of Seaweed Farming and Processing to Improve the Living Standard of Coastal Communities in the ARMM

Purpose: The regional seaweed production (dried seaweed) in the ARMM is increased by financial and technical supports of model programs.

Target: 4-5 municipalities in Tawi-Tawi, Sulu and Basilan, respectively and 1-2 municipalities in Maguindanao.

Major Outcome/Impact: The regional seaweed production in the ARMM is increased at 30 %. The quality of locally produced dried seaweeds is improved and stable. The economic impact to the ARMM is expected to attain 6-7 billion pesos annually.

Major Activities:

- (1) Selection of priority municipality and model sites for seaweed culture promotion.
- (2) Organization of local seaweed farmers as local business groups at model sites.
- (3) Arrangement of financial schemes to support local seaweed production.
- (4) Rehabilitation of public seaweed dryers (solar drying platforms) at model sites.
- (5) Training programs on quality control and management of seaweed production.
- (6) Monitoring of field activities of local seaweed production at model sites.
- (7) Organization of Quality Control Committee for seaweed products at target provinces respectively.
- (8) Strengthening of seaweed laboratory operation on pure strain tissue culture.

Management: BFAR mainly coordinates the overall activities with local consultants. BFAR also collaborates with the LGUs of priority municipalities and local financial institutions to conduct the field activities of seaweed culture promotion. The Fisheries Training Centers of

BFAR Region XI (Zamboanga), Zamboanga State Collage of Marine Science and Technology (ZSUMST) and MSU Tawi-Tawi are possible resource institutes for technical trainings and guidance.

8-4-2-6 Tilapia

Title: Development of Tilapia Culture to Improve the Living Standard of Coastal Communities in the ARMM

Purpose: Local production of tilapia culture is increased by improvement of seed supply and culture methods.

Target: 4-6 priority municipalities in Maguindanao and Lanao del Sur, respectively.

Major Outcome/Impact: The productivity of tilapia pond culture is increased at 30-40 % by introduction of applied technical culture methods. Total areas of fish ponds for tilapia culture are increased at 50 % in priority municipalities. The economic impact is expected to reach 80-100 million pesos per year in the ARMM.

Major Activities:

- (1) Selection of priority municipalities and model sites for tilapia culture promotion.
- (2) Formulation of applied technical models of tilapia seed production and grow-out culture by pilot projects.
- (3) Improvement of seed production operation at freshwater fish farms (Datu Odin Sinsuat in Maguindanao and Marantao in Lanao del Sur).
- (4) Organization of local tilapia farmers as local business groups at model sites.
- (5) Arrangement of financial schemes to support local tilapia production.
- (6) Training programs on tilapia culture and processing for LGU officers and local farmers.
- (7) Monitoring and evaluation of field activities of local tilapia production.

Management: BFAR mainly coordinates the overall activities with local consultants. BFAR also collaborates with the LGUs of priority municipalities and local financial institutions to conduct the field activities of tilapia culture promotion. Mindanao Freshwater Fisheries Technology Center (Kabacan) and MSUs Maguindanao and Marawi are possible resource institutes for technical training and field monitoring programs.

8-4-3 Livestock

Title: Projects for Technical Improvement of Cattle, Chicken and Goat Raising

Purpose: Productivity and quality of cattle, chicken and goat are improved by an introduction of appropriate livestock raising techniques.

Target: Target areas are existing cattle, chicken and goat raising areas in 5 provinces. In the first phase (demonstration phase), Maguindanao will be target province and the other 4 provinces will be targeted in the second phase (implementation phase) based on the result of the previous phase.

Major Outcome/Impact:

- (1) 50% of cattle raising farmers, who are technically supported by the Project in the pilot phase, can increase the number of cattle. Among the farmers of the second phase, 10% of farmers are the first trial group for cattle raising.
- (2) 70% of native chicken raising farmers, who are technically supported by the Project in the pilot phase, can increase the number of native chicken. Among the farmers of the second phase, 20% of farmers are the first trial group for native chicken raising.
- (3) 70% of goat raising farmers, who are technically supported by the Project in the pilot phase, can increase the number of goat. Among the farmers of the second phase, 20% of farmers are the first trial group for goat raising.

Major Activities:

- (1) Selection of priority municipalities and model sites for cattle, chicken and goat raising promotion.
- (2) Pilot project of cattle, chicken and goat raising.
Small-scale pilot projects are conducted at 3 proper sites (barangay level) to verify productivity and profitability of cattle, chicken and goat raising. The pilot projects are prepared and carried out at selected sites in Maguindanao, because of shorter distance to ARMMIARC and USM and MSU campuses compared to the other provinces.
- (2-1) Technical extension activities to the farmers concerning cattle, chicken and goat raising.
- (2-2) Group training programs of cattle, chicken and goat raising.
- (3) Organization and strengthening of cattle, chicken and goat raisers' group.

(4) Trainings on halal livestock-raising methods.

It is necessary to know about halal livestock raising methods since most farmers are not yet fully aware of them.

Management: Main project office is placed at Cotabato City. Senior technical advisers and local consultants use the main office to operate and coordinate the project activities with DAF-ARMM. DAF-ARMM takes overall coordination of project activities such as evaluating pilot projects. Provincial livestock Officers (PLO) mainly work for monitoring activities on model sites in respective priority provinces. Municipal LGUs also take responsibilities of coordination and monitoring for cattle, chicken and goat raisers at model sites.

8-4-4 Quality Control (Sanitation)

Title: Improvement of the Work Environment of Food-Related Organizations in the ARMM

Purpose: The project aims to educate, instruct and give guidance to food related organizations through an independent body until they acquire Sanitary Permit, License to Operate (LTO) and/or Halal Certificate which is a proof that the hygienic work environment is fulfilled as required in the relevant standard.

Target: Food related organizations in five provinces of the ARMM, such as primary product producers, food processors, food warehousing, ice makers, food transporters, food brokers, food wholesalers, food retailers, caterers, food package manufacturers, food additive manufacturers, food equipment and utensil manufacturers, etc.

Major Outcome/Impact: Increased number of food related organizations with Sanitary Permit, License to Operate (LTO) and/or Halal Certificate, from 27 to 260 for Sanitary Permit, from 5 to 50 for LTO, and from 3 to 30 for Halal Certificate.

Major Activities:

- (1) Formation of the independent body: DTI will establish the independent body like Davao Food Safety Team composed of DTI and FDA personnel.
- (2) Promotion on Sanitary Permit, License to Operate (LTO) and/or Halal Certificate: To educate, instruct and give guidance to food related organizations so that their work environment can conform to relevant standard with respect to hygiene.
- (3) Education and training the personnel: To educate and train periodically the personnel having the role in the independent body for Good Agriculture Practice (GAP), Good Manufacturing

Practice (GMP), Hazard Analysis and Critical Control Point (HACCP), micro-organism, etc.

Management: DTI will organize and manage the independent body. As assistant parties, DOH ARMM, FDA-ARMM and MMHCBI will be involved.

8-5 Distribution Infrastructure

Project Title: Improvement in Livelihood and Strengthening of Small-Scale Community by Maintenance of Distribution System in the ARMM

Target: All five provinces in the ARMM. Target group will be farmers group or farmer cooperative group.

Major Outcome/Impact:

- (1) Capacity of DAF/LGUs on project management, i.e., planning, implementation, monitoring, evaluation, and documentation is improved.
- (2) Community consolidation places will be established or improved for small-scale farmer, cooperative, middleman, trader, and so on.
- (3) Farmers' income is strengthened and stabilized.
- (4) Simple road repair construction method is adopted in agricultural groups and communities, and sustainable maintenance of the road is practiced by the communities.

Major Activities:

- (1) Preparation for the Project.
- (2) Improvement of consolidating center.
- (3) Rehabilitation of farm –to- market road.

Management:

DAF / LGUs perform planning, implementation, and monitoring of the whole project.

8-6 Marketing

Title: Improvement of Market Access for Producers in the ARMM

Purpose: The project aims to improve access to market information by producers and to expand their selling channel.

Target: Producers in all the potential municipalities in the ARMM.

Major Outcome/Impact: Producers have more access to market information which can contribute to the improvement of their products and expansion of their selling channels.

Major Activities:

- (1) Preparation: Review the current situation on how market information is provided to producers and identify the necessary strategy for marketing promotion.
- (2) First Phase: Provide producers with the basic skill and opportunities to expand their sales targeting to the regional market, through seminar and business matching.
- (3) Second Phase: Extend the target market outside the ARMM, initially major cities and other regions in Mindanao. Satellite shops will be set up for marketing promotion.
- (4) Third Phase: Introducing advanced marketing strategies so that they can target the nationwide and overseas markets for some selected products. In collaboration with wide range of parties including private and public sectors, the project will conduct trade fair and sales mission.

Management: DTI will manage the project with local experts. They will collaborate with other related institutions in both public and private sectors. Private sector can contribute much to this action plan as a collaborator and a major investor as well.

8-7 Finance

Title: Promotion of Financial Services for Farmers, Fishermen, and MSMEs in the ARMM

Purpose: The project aims to improve the access to finance by farmers, fishermen, and MSMEs, thereby contributing to the increased production.

Major Target: Ten microfinance institutions (MFIs) and financial cooperatives and 40 production cooperatives and groups in the five provinces of the ARMM.

Major Outcome/Impact: Increased outreach of financial services (70 LGUs, 30,000 clients of MFIs, 30,000 farmers/fishermen, 20 cooperatives, 100 MSMEs). Income of target groups increases by 30%.

Major Activities:

- (1) MF Promotion: Capacitate MFIs and cooperatives and assist them to introduce new financial services for agriculture and fisheries; facilitate services by the Land Bank of Philippines and the Development Bank of Philippines for MSMEs which require larger loans.
- (2) VC Finance Promotion: Promote financing systems utilizing existing value chain actors such as processors and traders.
- (3) Group Fund Promotion: Capacitate the cooperatives and groups of farmers and fishermen to mobilize their savings and provide credit to their members as well as to link them with Financial Institutions including MFIs.

Management: DTI will manage the project with local experts on Micro Finance. They will collaborate with other related institutions such as CDA and LGUs.

8-8 Organizational Strengthening/BDS

Title: Development of the Capacity of Producers' Groups in the ARMM

Purpose: The project aims to improve the access to BDS by producers' and processing groups, thereby contributing to improving the qualities of their managements.

Target:

First phase: 5 to 6 producers' groups in five provinces in the ARMM.

Second phase: 10 or more producers' groups in five provinces in the ARMM.

Major Outcome/Impact:

Outcome: (For producers) Improved skills to maintain accounting records; to implement basic marketing activities; and to manage a group.

Impact: (For producers) Increased sales volume of products; and business operation with sustainable manner.

Major Activities:

- (1) Preparation: Reviewing training modules, compiling information of BDS providers and selecting target groups.

- (2) Training of Trainers to the technical officers in DTI provincial offices.
- (3) Implementation of Training Sessions on BDS for Producers' Groups.
- (4) Review of Training Modules and Follow-up Training for Trainers: Applying lessons learned from practices at sites to training modules.

Management: DTI will manage the project with local experts. They will collaborate with other related institutions such as CDA and municipal LGUs.

CHAPTER 1 INTRODUCTION

1-1 Background of the Study

The Autonomous Region in Muslim Mindanao (ARMM) was established in 1989 by Republic Act (R.A.) 6734. This establishment came as a result of the 1987 agreement between the Government of the Republic of the Philippines (GRP) and the Moro National Liberation Front (MNLF) on the guarantee of autonomy in the region.

In the 15th century, an Arab missionary landed somewhere along the Rio Grande de Mindanao River and around the present Cotabato City, then introduced Islam to the natives. Cotabato had developed as the Western entry/relay point of Mindanao main island and through its trades over the years. The town was later founded in 1862 by the invading Spaniards. When the ARMM was officially established in 1989, Cotabato City was designated as the seat of the government. Since then, the City remained as the seat of the ARMM government.

According to the 2007 national census, the population of the region is about 4.12 million, or 5% of the country's total population. About 90% of the ARMM population is Muslim. The total administrative area of the ARMM is 11,608 km². It occupies 11% of Mindanao and 4% of the total national land. The per capita regional income of the ARMM, the poorest area in Mindanao, is only one fourth of the national average.

Fifty-one (51) % of the Gross Regional Income of the ARMM comes from primary industries. The majority of the inhabitants are small-scale farmers living at the subsistence level. Due to long-term armed conflicts in the region, not many business activities have been observed. The conflicts have also prevented the development of communities, which were supposed to carry out economic activities at the grass-roots level. Thus the regional economy has been stagnant for a long time. In addition, limited capacity, weak governing experiences, a fragile financial environment, and incomplete administrative orders have kept the ARMM government from providing pertinent administrative services and developing comprehensive infrastructure networks. These institutional difficulties and constraints inevitably led to reducing the total commitment and endeavors of the government and inhabitants of the ARMM for revitalizing the regional economy.

1-2 Objectives and Expected Outputs of the Study

The Study is being conducted as part of the Japan Bangsamoro Initiatives for Reconstruction and Development (J-BIRD)⁶. The objectives of the Study are to analyze the potentials of and constraints on the local industries, and to formulate a strategy for economic revitalization by promoting primary industries. Here are the expected outputs of the Study: i) results of analysis on industrial potentials in the ARMM, ii) strategy for micro-industry promotion in the ARMM, and iii) capacity development of the government officials of the ARMM and other stakeholders.

1-3 Study Area

The study area for the local industry promotion project is the entire ARMM which consists of five provinces: the inland provinces of Maguindanao and Lanao del Sur; and the island provinces of Basilan, Sulu, and Tawi-Tawi. As one of the themes of this development study is to assess the potentials and identify the constraints on local industry promotion from the viewpoints of general logistics and marketing strategies in Mindanao as a whole, the economies of Mindanao's major cities like Davao, Cagayan de Oro, Iligan, General Santos and Zamboanga City are also included.

1-4 Scope of the Study

To achieve the objectives mentioned above, the Study shall cover the following items:

- (1) Analysis of current conditions in the ARMM such as:
 - Socio-economic conditions in the ARMM
 - Policies, regulations and programs relevant to local industry development in the ARMM
 - The performance and capabilities of concerned institutions of the Regional Government and the related organizations in both the public and private sectors
 - The existing local primary products in the ARMM and its neighboring areas
 - The existing local industries in the ARMM and the neighboring areas
 - Technical and financial support systems for local industries
 - Physical distribution and infrastructure of local industries
 - Human resources for local industries
 - Donors' support to local industrial development efforts

⁶ J-BIRD was launched in December 2006, and designed to contribute to the peace process and development in the Conflict-Affected Areas in Mindanao (CAAM) and the surrounding areas in the ARMM. The objective of J-BIRD is to enable the people and the communities in the target areas to enjoy the "dividends of peace" through the Japanese Overseas Development Aid (ODA) on the basis of the "Human Security" principles.

- (2) Identification of the potential of local industries in the ARMM
 - Future potential of local industries in terms of domestic and international competitiveness of products and services
 - Promising industries and a detailed analysis of them
 - The economic impact and effect of local industry development
- (3) Identification of issues to be addressed for the promotion of local industry
 - Constraints of local industry development in the ARMM
 - Issues to be tackled within the above constraints, and the policies needed to address them
- (4) Development of a strategy for regional economic revitalization through the promotion of local industry in the ARMM
 - Vision and goals to promote local industries
 - Regional revitalization strategy through local industry development
 - Action plans (project and priority actions to be undertaken)

1-5 Schedule of the Study

The Study commenced in April 2010 and implemented till the end of October 2011.

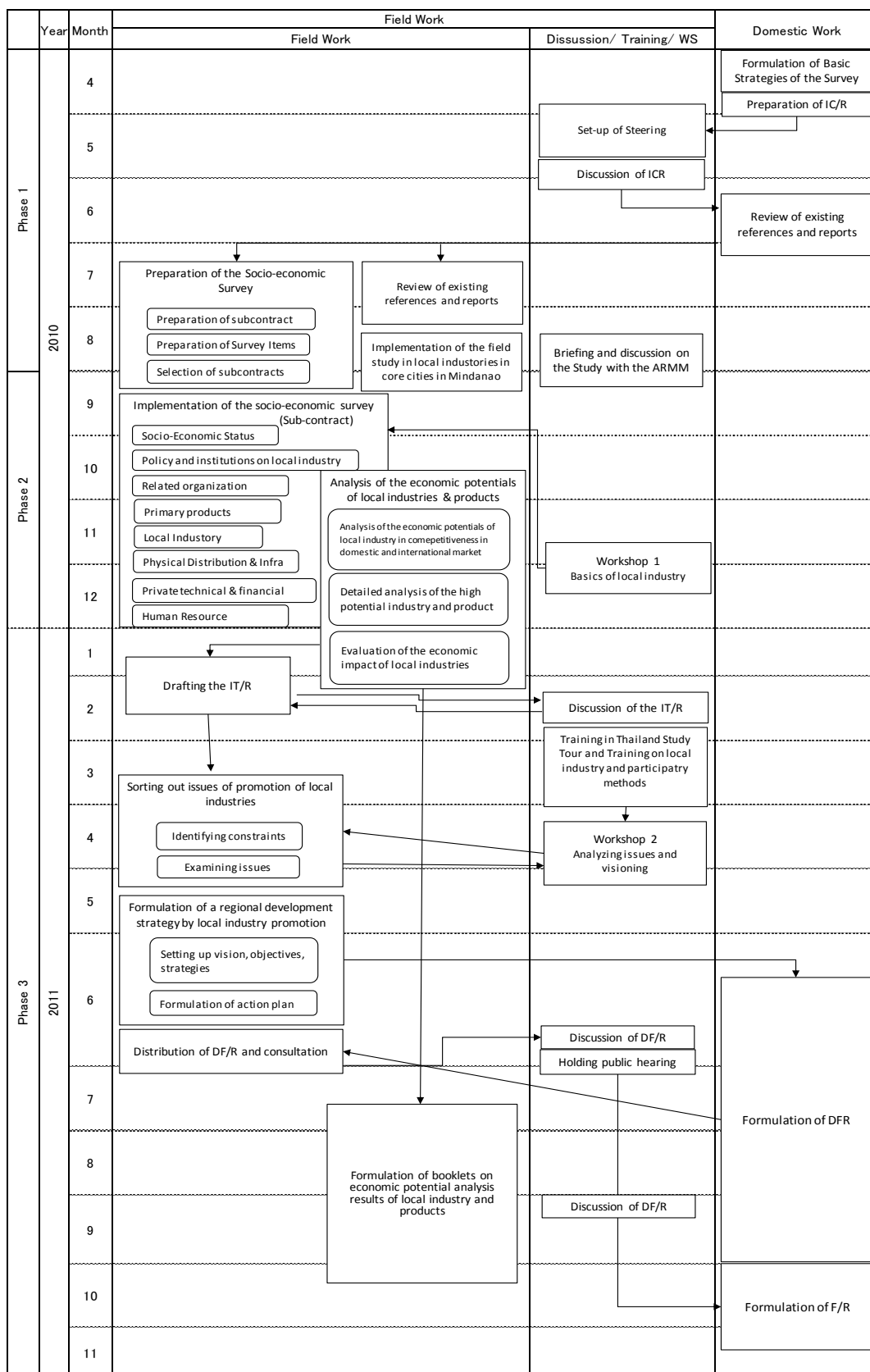


Figure 1-1: Schedule of the Study

1-6 Organization of the Study

The Study was carried out by the Study Team contracted by JICA in close collaboration with the Department of Trade and Industry-ARMM (DTI) and other concerned agencies.

The Steering Committee was organized by the Executive Secretary of the ARMM in order to: i) supervise and advise the Study; ii) appraise the results of the Study; iii) select the Technical Working Group (TWG) members; and iv) supervise the activities of the TWG. The Steering Committee is composed of the following departments and agencies:

- The JICA focal person of the ARMM
- Executive Director, the Regional Planning and Development Office (RPDO), the ARMM
- Regional Secretary, the Department of Interior and Local Government (DILG), the ARMM
- Chairman, the Regional Board of Investment (RBOI), the ARMM
- Representative from the Bangsamoro Development Agency (BDA) (observer)

The Study Team is composed of the following members:

Dr. Hiroaki TERASHIMA	(Leader)
Mr. Michimasa NUMATA	(Deputy Leader/Local Industry Promotion 1)
Ms. Haruko AWANO	(Deputy Leader/Local Industry Promotion 2/Microfinance)
Mr. Mitsuo IINUMA	(Agriculture, Fisheries 1)
Mr. Shingo FURUICHI	(Agriculture, Fisheries 2)
Mr. Masayoshi NAKATANI	(Food Processing 1)
Dr. Hiroshi KOAZE	(Food Processing 2)
Ms. Miyoko (MAEKAWA) TANIGUCHI	(Regional Development/Social Analysis)
Mr. Ken ARAKI	(Marketing/Economic Analysis)
Mr. Roel BRIONES	(Distribution/Infrastructure 1)
Dr. Takashi HOSHINO	(Distribution/Infrastructure 2)
Mr. Hisamitsu SHIMOYAMA	(Organization Development/Human Resource Development)
Mr. Yutaka TAKANO	(Quality Control/Management)
Ms. Mari ONO/Ms. Hiromi MIYAO/Ms. Shima HAYASE	(Administrator)

CHAPTER 2 ANALYSIS OF CURRENT CONDITIONS

2-1 Social Conditions

2-1-1 Demographic Trend

(1) Population and Growth

The total population of the Philippines increased from 68.616 million in 1995 to 88.574 million in 2007. The annual population growth rate (APGR) was 2.2% in 1995-2000 and 2.11% in 2000-2007. Table 2-1 shows the population trend of the Philippines as a whole, Mindanao, the ARMM and its provinces in the years 1995, 2000, and 2007. The total population of the ARMM accounts for 19% of the total population of Mindanao, and 4.7% of the Philippines in 2007. The populations of the ARMM show an increase of APGR 5.66%, which is much higher than the annual growth rates of 2.11% in the Philippines and 2.52% in Mindanao. Still, the population density of the ARMM is 123 persons per square kilometer and much lower than the number of 258 in Philippines and 159 in Mindanao. The average population densities by province range from 84 in Lanao del Sur to 247 in Sulu.

Table 2-1: Population Trend

	Population			APGR		Area	Population Density		
	1995	2000	2007	95-00	00-07		1995	2000	2007
	Person			%	%	sq.km	Person/sq.km		
Philippines	68,616,536	76,506,928	88,574,614	2.20	2.11	343,448	200	223	258
Mindanao	16,205,487	18,133,794	21,582,540	2.27	2.52	135,627	119	134	159
ARMM	2,362,300	2,803,045	4,120,795	3.48	5.66	33,511	70	84	123
Maguindanao	662,180	801,102	1,273,715	3.88	6.85	9,729	68	82	131
Lanao del Sur	686,193	800,162	1,138,544	3.12	5.17	13,494	51	59	84
Basilan	227,008	259,796	408,520	2.73	6.68	3,225	70	81	127
Sulu	536,201	619,668	849,670	2.94	4.61	3,437	156	180	247
Tawi-Tawi	250,718	322,317	450,346	5.15	4.89	3,627	69	89	124

Source: NSCB (National Statistics Coordination Board)

Figure 2-1 shows the population distribution by age group and gender in the ARMM in 2000. The population distribution is pyramid-shaped, which is common in developing countries. The population group under 15 years of age accounts for 40.8% of the total population of the ARMM.

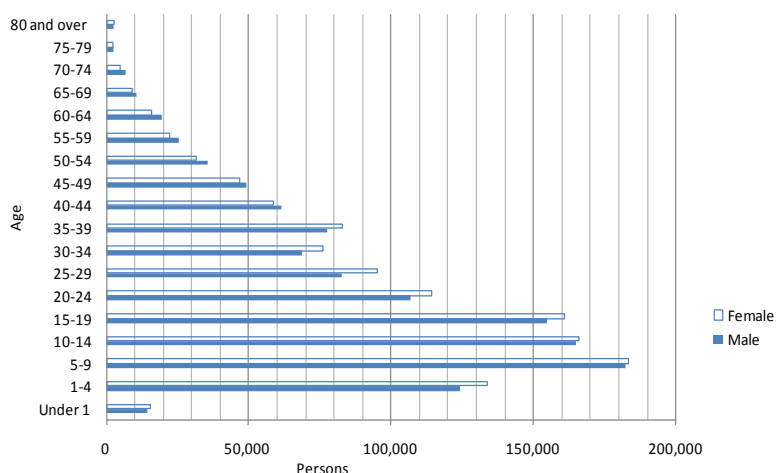


Figure 2-1: Population by Age Group in the ARMM in 2000
 Source: NSCB

(2) Ethnic Grouping and Religion

The cultural diversity of Mindanao is the result of a large influx of migrants from the north over a long period. Historian B. R. Rodil classifies the peoples of Mindanao into two broad categories: indigenous and migrants⁷. Indigenous groups are further classified as the Muslims or Islamized groups, the Non-Islamized Visayan-speaking Indigenous People of northern and eastern Mindanao, and the Chavacanos of Zamboanga. Presently, the non-Islamized Indigenous People of Mindanao consisting of around 30 ethnic groups are called Lumads which is the Visayan term for indigenous (Rodil, 2003). The Commission on National Integration, created in 1957, made an official listing of the National Cultural Minorities including the Moro people and the Lumads, which are made up of 13⁸ and 17⁹ groups, respectively.

According to the last population census conducted in 2000, Muslims numbered 3,862,389 which comprise 4.9% of the Philippines’ total population. In Mindanao, large Christian settlements began sprouting from the 1930s and the proportion of Muslims in the total population fell to 40% by 1976, and to around 20% currently. On the other hand, as indicated in Table 2-2, Muslims are the dominant ethnic group (89.1%) in the ARMM, followed by Christians (8.5%), and indigenous people (2.5%).

⁷ B.R. Rodil, *The Minoritization of the Indigenous Communities of Mindanao and the Sulu Archipelago*, the Alternate Forum for Research in Mindanao, Davao, 1994.

⁸ Badjaw, Magindanaw, Iranun, Kalibugan, Maranaw, Pullun Mapun, Samal, Sangil, Tausug, Yakan, Palawani (Palawan), Malbog (Melebugnon or Molbuganon, Palawan) and Kalagan (Davao del Sur)

⁹ Ata, Bagobo, Mamanwa, Mangguangan, Mandaya, Banwa-on, Balaan, Bukidnon, Dulangan, Kalagan, Kulaman, Manobo, Subanon, Tagabil, Tagakaola, Talangig, Tiruray

Table 2-2: Population in Mindanao by Religion and Ethnic Group

	Total Population	Male	Female	Roman Catholics	Muslim	Indigenous Peoples
	Person			%		
Mindanao	18,133,864	9,186,816	8,947,048	71.9	19.9	8.2
Region 9	3,091,208	1,566,743	1,524,465	73.4	18.1	8.5
Region 10	2,747,585	1,397,684	1,349,901	92.0	0.7	7.3
Region 11	5,189,335	2,648,187	2,541,148	83.3	2.7	13.9
Region 12	2,598,210	1,313,149	1,285,061	67.7	28.1	4.2
Region 13	3,166,616	2,095,367	1,071,249	93.6	0.4	6.0
ARMM	1,412,159	189,804	1,222,355	8.5	89.1	2.5

Source: NSCB

There are seven Muslim ethnic groups in the southern Philippines and three of them are located in the island of Mindanao: the Maranaw around Lake Lanao, the Magindanaw of Cotabato, and the Sangil of the region further south of Cotabato. Four groups are in the Sulu archipelago: the Yakan of Basilan Island, the Tausug in Sulu, the Samal in Tawi-Tawi and adjacent islands, and the Jama Mapun of Cagayan de Sulu. The population by ethnic group and province in the ARMM is shown in Table 2-3. The Maranaw account for 91.1% of the total population in Lanao del Sur, while the Magindanaw account for 63.5 % of the total population in Maguindanao.

Table 2-3: Population in the ARMM by Ethnic Group

Province	Population	Ethnic Group	Population	Ratio
	Person		Person	%
Basilan	332,579	Yakan	137,545	41.4
		Tausug	76,306	22.9
		Samal	33,511	10.1
Lanao del Sur	668,690	Maranaw	608,902	91.1
Maguindanao	800,369	Magindanawn	508,302	63.5
		Iranun	116,283	14.5
Sulu	619,550	Tausug	528,299	85.3
Tawi-Tawi	322,066	Samal	164,357	51.0
		Tausug	114,745	35.6

Source: NSCB (2009)

2-1-2 Education

Education in the ARMM is marked by a long history of deprivation and underfunding, resulting in levels of educational development below the national average. The functional

literacy rate in the ARMM in 2007 was 73.7%, which is lower than the national rate of 92.3%. Despite the high level of the elementary school net participation rate in 2007 in the ARMM (94%), the cohort survival rate was only 41.3% compared with the national average of 75.3% (Table 2-4). The secondary school participation rate was the lowest in the country (34.6% in 2007, compared with the national average of 61.9%). The cohort survival rate of the secondary level in the ARMM was 65.4% against the national average of 79.9%.

Table 2-4: Education Indicators in the ARMM and the Philippines (Unit: %)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Philippines										
Elementary Education										
Net Enrollment Rate	95.7	97.0	96.8	97.0	90.3	81.7	76.1	73.5	83.2	84.8
Cohort Survival Rate	69.8	69.3	67.2	67.1	69.8	63.6	64.9	62.6	73.4	75.3
Secondary Education										
Net Enrollment Rate	65.2	65.4	66.1	73.4	58.3	47.0	42.5	44.5	58.6	61.9
Cohort Survival Rate	71.3	71.0	73.1	73.2	65.8	60.4	61.3	55.0	77.3	79.9
ARMM										
Elementary Education										
Net Enrollment Rate	91.3	93.6	92.9	97.9	80.7	89.1	n.a.	n.a.	85.8	94.0
Cohort Survival Rate	39.8	32.8	33.6	34.0	48.1	37.0	n.a.	n.a.	33.9	41.3
Secondary Education										
Net Enrollment Rate	25.1	28.9	23.5	32.4	23.6	26.7	n.a.	n.a.	32.6	34.6
Cohort Survival Rate	67.6	71.7	64.1	71.1	75.2	60.3	n.a.	n.a.	41.3	65.4

Source: NSCB

Most children in the ARMM are enrolled in public schools, but many also attend madrasahs on weekends for religious education. Madrasahs are privately operated Islamic schools covering mainly primary education. There are 440 madrasahs, of which only 44 are accredited, with a pupil population of almost 90,000¹⁰. Most concentrate on Islamic religious and cultural teachings and Filipino and English subjects are not included in the curriculum of the madrasah system. Therefore, the graduates of madrasahs have difficulty finding employment because they lack skills in Filipino, English, and mathematics.

In 2008, the number of trainers for technical vocational education and training in the ARMM was only 39 persons, comprising 15 in the public sector and 24 in the private sector. That is a tiny fraction of the 4,120 trainers in the country. The numbers of enrollment in the training programs mentioned above in the ARMM was increased from 9,286 in 2007 to 56,097 in 2008. The increase led to more government-assisted training programs through the Technical Education and Skills Development Authority (TESDA) and other agencies.

¹⁰ *Technical Assistance to the Republic of the Philippines for Development of Basic Education in the Autonomous Region in Muslim Mindanao, ADB, 2004.*

2-1-3 Family Income and Expenditures

As shown in Table 2-5, the family income and expenditure level in the ARMM is around a half of the national average in 2009, the lowest in the country. Although the income and expenditure increased slightly from 2006, savings level decreased.

Table 2-5: Family Income and Expenditure in the ARMM and the Philippines (2009)

Region	2009 (in thousand pesos)			2006 (in thousand pesos)		
	Income	Expenditure	Savings	Income	Expenditure	Savings
Philippines	129	110	19	125	107	19
Region IX	88	71	17	93	73	20
Region X	98	83	15	102	84	18
Region XI	99	85	14	96	82	14
Region XII	96	82	14	85	72	14
Region XIII	88	74	14	86	73	13
ARMM	62	54	8	61	52	10

(at constant 2000 price)

Source: NSO, 2006 and 2009 Family Income and Expenditure Survey

The data by province is available only for 2000 as shown in Table 2-6. The average family income in the ARMM indicates a wide range of variation by province. Lanao del Sur recorded an average of Php 83,413, the highest in the ARMM, while Basilan recorded the lowest figure of Php 67,497. The negative annual growth from 1997 to 2000 were recorded at -29.0% in Basilan and -24.2% in Tawi-Tawi. More than a half of the family expenditures were allocated for food in the ARMM, while the national average was 43.6%. Sulu recorded 64.6%, the highest percentage of family expenditures allocated for food in the ARMM.

Table 2-6: Family Income and Expenditure in the ARMM and the Philippines (2000)

	No of Families	Average Family Income	Expenditure						
			TOTAL	Food	Rent	Trans-port &	Educa-tion	Medical Care	Others
	Person	Peso	Peso	%					
Philippines	15,269,655	144,039	118,002	43.6	14	6.8	4.2	1.9	29.3
ARMM	354,837	77,979	64,860	56.2	8.9	3.8	3.0	0.8	27.4
Basilan	60,582	67,497	57,204	55.5	8.9	3.8	4.2	0.8	26.8
Lanao del Sur	100,072	83,413	66,433	53.1	12.9	3.3	2.5	0.4	27.8
Maguindanao	145,985	76,438	63,594	56.7	8.1	5.2	2.7	1.0	26.3
Sulu	99,416	77,598	68,481	64.6	6.0	3.1	1.4	0.5	24.4
Tawi-Tawi	48,782	85,240	68,586	51.0	8.4	3.5	4.1	1.1	31.9

Source: NSCB

2-1-4 Poverty Incidence Rate

In 2009, the poverty incidence rate of the ARMM was 38.1%, about 17% higher than the national average of 20.9%. While the poverty incidence rate in Mindanao was from 25.6% to 39.8%, the incidence rate in the ARMM was the second highest after Caraga Region. Among the five provinces in the ARMM, Maguindanao posted 44.6%, the highest rate in 2009 in the ARMM. As observed in Table 2-7, the poverty incidence rate in the ARMM increased from 2003 to 2009. In particular, the increase in Lanao del Sur is as large as by 23%, followed by Sulu (by 19%), and Tawi-Tawi (by 13%).

Table 2-7: Poverty Related Indicators in the ARMM and the Philippines

Region/Province	Annual Per Capita Poverty Threshold (in Pesos)			Poverty Incidence Among Families (%)		
	2003	2006	2009	2003	2006	2009
Philippines	10,976	13,348	16,841	20	21.1	20.9
Region IX	9,642	11,810	15,160	40.5	34.2	36.6
Region X	10,501	12,987	16,568	32.4	32.7	32.8
Region XI	10,737	13,469	17,040	25.4	26.2	25.6
Region XII	10,277	12,530	15,762	27.2	27.1	28.1
Region XIII	10,355	12,935	16,858	37.6	36.9	39.8
ARMM	9,664	12,358	16,334	25	36.5	38.1
Basilan	9,016	11,595	15,341	20.7	21.4	23
Lanao del Sur	8,545	11,067	14,533	13.7	25.6	36.8
Maguindanao	9,920	12,770	16,872	41.9	44.9	44.6
Sulu	10,397	13,436	17,658	20.3	36.7	39.3
Tawi-Tawi	9,230	11,915	15,824	18.2	49.1	31.5

Source: NSCB (2011) Philippine Poverty Statistics

The World Bank attributes the chronic poverty experienced in the ARMM to the following factors: i) the lack of stability in peace and order in the area; ii) a lack of political will on the part of the executive branch of the ARMM government to institute the necessary reforms needed to make the ARMM bureaucracy efficient and effective; and iii) an absence of administrative and civil service laws in support of the ARMM development framework¹¹. There is a concern that the poverty situation in the ARMM will be aggravated with the population growth higher than the GRDP growth and the gap with other regions in Mindanao will be widened.

¹¹ *Human Development for Peace and Prosperity in the ARMM*. The World Bank, 2003.

2-1-5 Human Development Index

According to the 2008/2009 Philippine Human Development Report (PHDR) of the United Nations Development Program (UNDP), five provinces in the ARMM are among the bottom ten in the rankings for the Philippine Human Development Index (HDI)¹² (Figure 2-2). Of the seven provinces in the bottom ten for 2006, the lowest five are all from the ARMM: Sulu, Tawi-Tawi, Maguindanao and Basilan ranked first to fourth from the bottom.

The period from 1997 to 2006 was a period of major assistance from international donor agencies in support of the 1996 GRP and MNLF peace agreement and the peace negotiations with the MILF. Yet the five ARMM provinces remained at the bottom of the HDI. Three major wars broke out between 1997 and 2006: in 1997 in Pikit, North Cotabato Maguindanao area; in March 2000, when President Estrada declared his “all-out war” against the MILF; and in 2003 when the Arroyo administration conducted a military operation against the MILF. Consequently, nearly a million people in Maguindanao, Lanao del Sur, Lanao del Norte, and some parts of Basilan were displaced in the 2000 war. In addition, some 415,000 were displaced by the 2003 war in Maguindanao-North Cotabato, Lanao del Sur-Lanao del Norte. In 2008, another war broke out following the aborted formal signing of the already initialed Memorandum of Agreement on Ancestral Domain. Thus the living conditions of the people in the ARMM have continuously been affected by conflicts over the last decade.

¹² According to the UNDP definition, the HDI combines three dimensions: i) life expectancy at birth, as an index of population health and longevity; ii) knowledge and education, as measured by the adult literacy rate (with two-thirds weighting) and the combined primary, secondary, and tertiary gross enrollment ratio (with one-third weighting); ii) standard of living, as indicated by the natural logarithm of gross domestic product per capita at purchasing power parity.

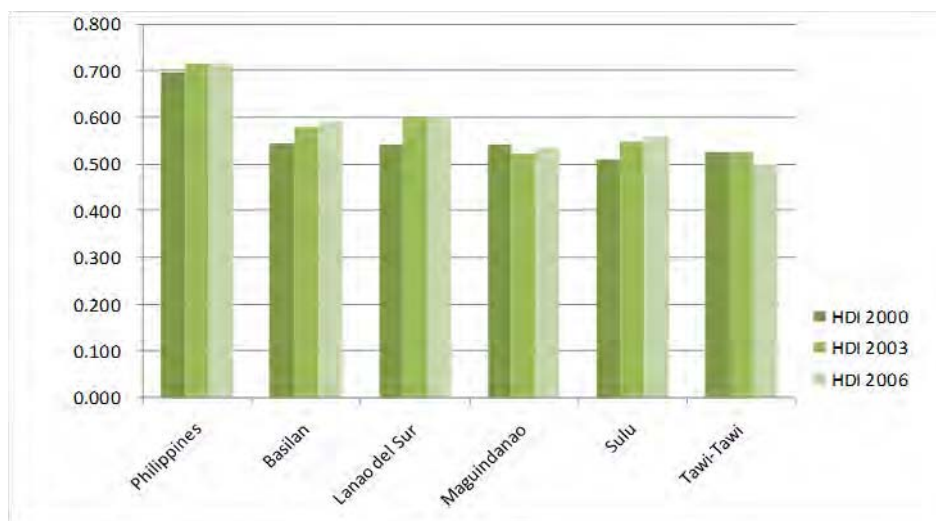


Figure 2-2: Human Development Index in the Philippines and the ARMM (HDI)
Source: UNDP (United Nations Development Program)

2-2 Economic Conditions

2-2-1 Economic and Industrial Structure

(1) Gross Regional Domestic Product (GRDP)

Figure 2-3 and 2-4 show the Gross Regional Domestic Product (GRDP) and its annual growth rate in Mindanao at constant price in 1985. The ratio of the ARMM's GRDP in Mindanao was 4.8% in 2009 and much smaller than its population ratio of 24% in Mindanao. Compared to the other regions in Mindanao, the growth of GRDP in the ARMM has been very slow. The steep decline of GRDP growth of the ARMM in 2001 and 2003 was partially due to the military operations against the MILF under the Estrada and Arroyo Administrations. However, the growth has been sluggish in the ARMM since then. While the average growth rates of Mindanao have been close to the national average and recorded 3.9% in 2008 and 3.7% in 2009, the rates of the ARMM were 1.9% and 2.6%, respectively.

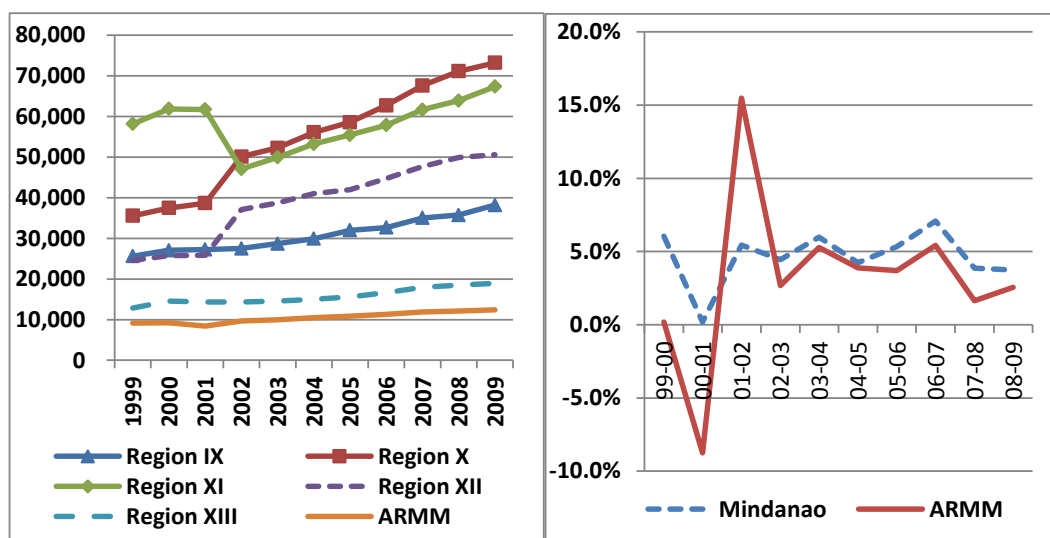


Figure 2-3: GRDP in the Mindanao

Figure 2-4 GRDP Growth in Mindanao

Source: NSCB, in million pesos: at constant 1985 prices

Per capita GRDP of the ARMM was 18,924 in 2009 in current Pesos which is only 23% of the national figure of 83,274 and the lowest in the country. When looking at constant 1985 price, per capita GRDP in the ARMM decreased from 4,037 in 1999 to 3,572 in 2009, although the figure increased by 23% in the Philippines and 28-32% in neighbouring regions of Region IX, XI and XII during the period. (Refer to Figures 2-5 and 2-6 below.)

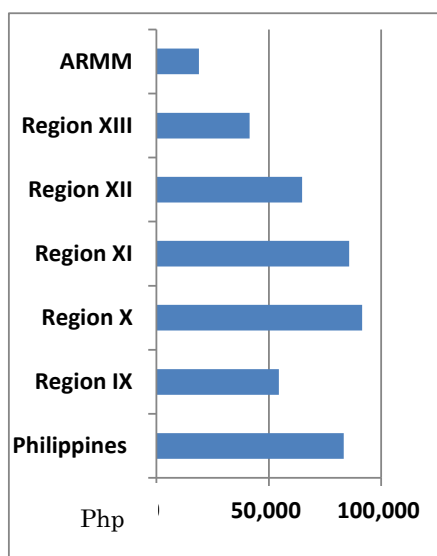


Figure 2-5: Per Capita GRDP (in pesos, at current 2009 price)

Source: NSCB

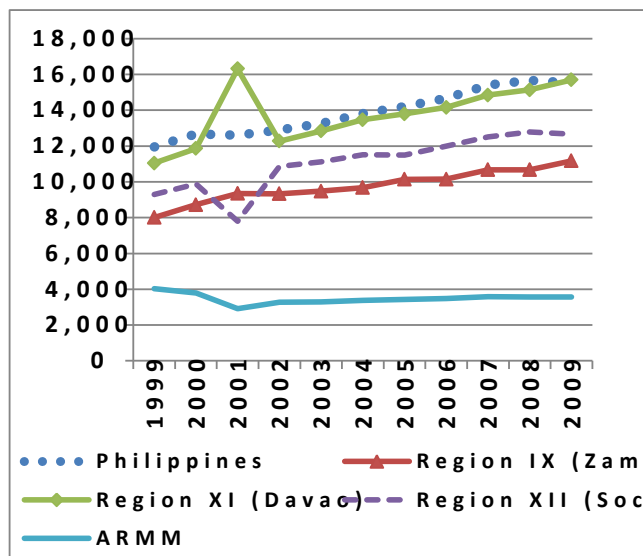


Figure 2-6 Per Capita GRDP in Mindanao (in pesos, at constant 1985 price)

(2) Industry Structure

Figure 2-7 illustrates the structure of GRDP of each region in Mindanao by sector in 2009. Based on the definition of National Statistics Office (NSO), the primary industry consists of agriculture, fisheries, and forestry, the secondary industry consists of mining, quarrying, manufacturing, construction, electricity, gas, and water, and the tertiary industry consists of service. The ARMM depends heavily on the primary sector, which accounts for about 60% of its GRDP.

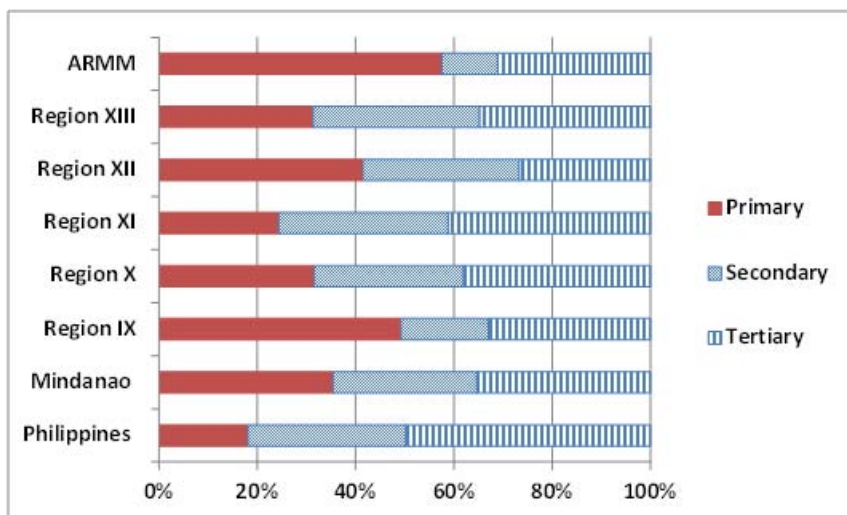


Figure 2-7: GRDP Structure by Sector in 2009
Source: NSCB

Figure 2-8 shows the growth of value-added GRDP by sector in the ARMM and the Mindanao. Fluctuation of growth rates in the ARMM in all the sectors is large compared with the average rates in Mindanao.

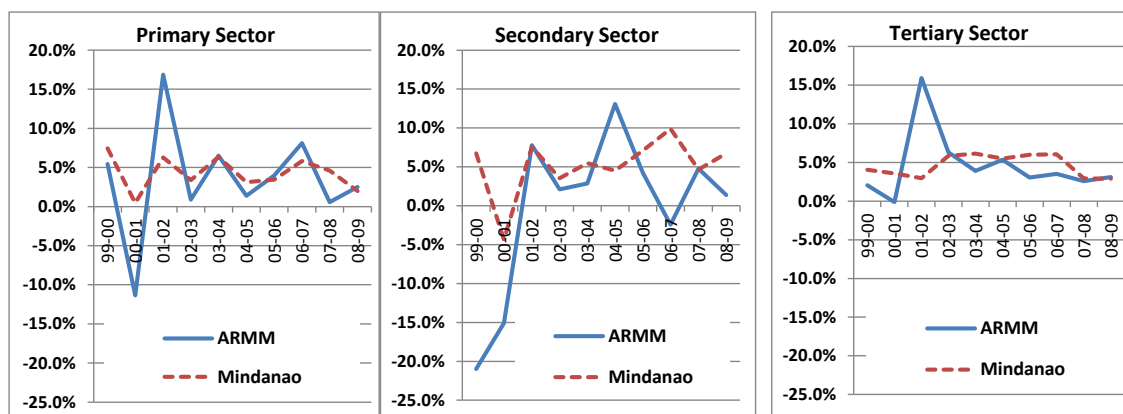


Figure 2-8: GRDP Growth by Sector in the Mindanao and the ARMM
Source: NSCB

In 2009, the tertiary sector recorded the highest growth of 3.1%, followed by the primary sector (2.5%) and the secondary sector (1.4%) in the ARMM. Overall average annual growth rates from 2000 to 2009, too, the tertiary sector posted the highest rate at 4.6%, with the primary industry at 3.5%, while the average of the secondary industry is negative at -0.2%.

(3) Labor Force

The labor force of the ARMM in 2003, the year with the most recent available data, was approximately one million, which accounts for 3.0% of the total labor force of the Philippines. As shown in the Figure 2-9, more than 60% of the labor force in the ARMM belongs to the primary sector. The ratio is much bigger than the averages of Philippines and Mindanao.

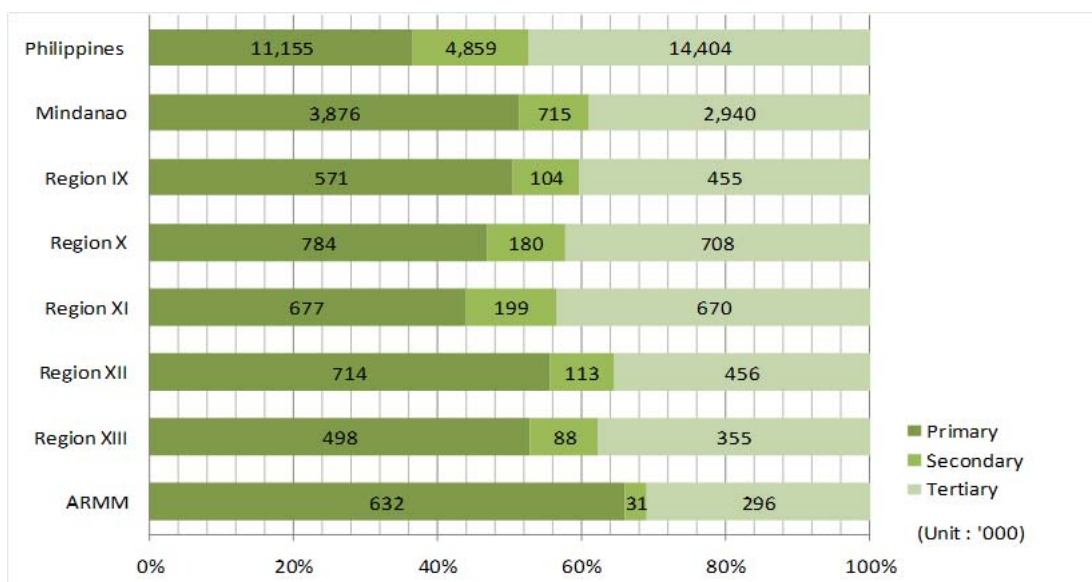


Figure 2-9: Labor Force by Region

Source: NSCB

The unemployment rate in the ARMM was 9.1%, although the situation varies by province as shown in Table 2-8.

Table 2-8: Labor and Employment in the ARMM and the Philippines (2003)

	Employed		Unemployed		Total	Primary	Secondary	Tertiary
	Person (in '000)	%	Person (in '000)	%	Person (in '000)	%		
Philippines	30,418	87.8	4,217	12.2	34,635	36.7	16.0	47.4
ARMM	959	90.9	92	9.1	1,051	66.2	3.2	30.9
Basilan	101	82.5	21	17.5	122	65.3	6.9	30.7
Lanao del Sur	227	88.2	30	11.8	257	52.0	4.4	43.6
Maguindanao	337	92	29	8	336	69.7	2.1	28.2
Sulu	175	96.2	7	3.8	182	72.0	2.3	25.7
Tawi-Tawi	119	95.8	5	4.2	124	75.6	2.5	21.8

Source: NSCB

The highest unemployment rate in the ARMM was 17.5% in Basilan, while the lowest was 3.8% in Sulu. As for the labor force by sector, the statistics indicate that the majority were engaged in primary sector in all the ARMM provinces. Meanwhile, the labor force in the service sector accounts for 43.6% of the total in Lanao del Sur.

(4) Labor Productivity and Minimum Wage

An indicator of productivity by the labor force is derived by taking the GRDP values divided by number of those employed. The results are shown in Figure 2-10. In all sectors, the ARMM shows less than half the national average. However, it is almost at average levels in comparison to Mindanao in the primary and secondary sectors.

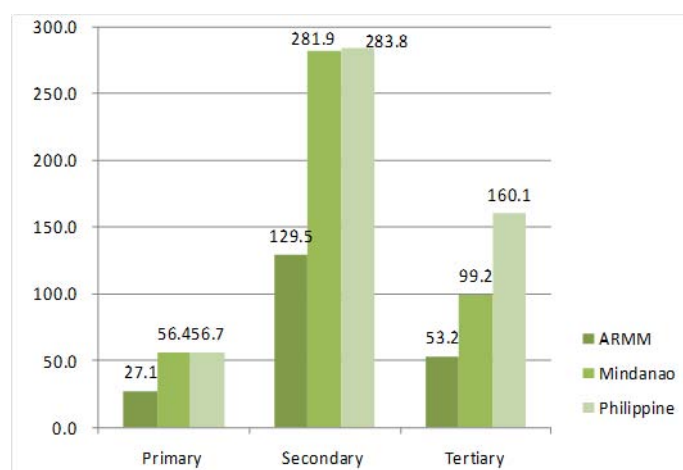


Figure 2-10: Labor Productivity by Region (Php)

Source: NSCB

The minimum wage rates of the ARMM were Php 210 for both non-agriculture and agriculture work (plantation and non-plantation) in 2008, compared with Php 260 in Region XI (Davao

Region) and Php 382 for non-agriculture and Php 345 for agriculture in the National Capital Region (NSCB, 2009).

(5) Economic Growth by Local Industry Promotion

Compared to other regions or the entire Philippines, the ARMM economy is more dependent on primary industry, most of which are agriculture, fisheries and livestock. As explained in above, about 60% of the GRDP of the ARMM is from primary industry, whereas it is around 30 to 40% in other regions in Mindanao, and less than 20% nationwide. Therefore, the local industry promotion led by primary industry can have an impact effectively on economic development in the ARMM.

Table 2-9 shows the annual growth rate of GDP/GRDP of the Philippines nationwide, Mindanao and the ARMM since 2000. According to this data, the average annual growth rate in the ARMM is about 1% lower than the nation and overall Mindanao.

Table 2-9: Average Annual Economic Growth

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	CAGR (00-09)
Philippines	6.0%	1.8%	4.4%	4.8%	6.5%	5.0%	5.3%	7.1%	3.7%	1.1%	4.4%
Mindanao	6.0%	0.2%	5.4%	4.4%	6.0%	4.2%	5.4%	7.1%	3.9%	3.7%	4.5%
ARMM	0.2%	-8.7%	15.5%	2.7%	5.3%	3.9%	3.7%	5.4%	1.6%	2.6%	3.4%

CAGR: Compound Annual Growth Rate (Average annual growth rate for a specific period)

Source: NSCB

To fill the gap between ARMM and other regions in economic growth, it needs to sustain the average annual growth rate of at least 4.5% or above. In recent years, the ARMM achieved this target in 2004 and 2007, with the growth rate of 5.3% and 5.4% respectively. In those years, primary industry in the ARMM attained the growth of 6.5% and 8.1%, as shown in Table 2-10. Considering these facts, it can be said that the ARMM economy has to achieve the annual growth of around 7% or above in primary industry to maintain the overall regional economy competitive with others. Therefore, this target rate of 7% in primary industry could be the benchmark for monitoring the effect of local industry promotion in this region.

Table 2-10: Average Annual Growth in Primary Industry

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	CAGR (00-09)
Philippines	4.3%	3.7%	4.0%	3.9%	5.1%	2.0%	3.8%	4.9%	3.1%	0.0%	3.4%
Mindanao	7.5%	0.4%	6.3%	3.4%	6.3%	3.1%	3.5%	5.8%	4.6%	2.0%	3.9%
ARMM	5.5%	-11.3%	16.9%	0.9%	6.5%	1.4%	4.0%	8.1%	0.6%	2.2%	3.0%

Source: NSCB

2-2-2 Trade

The total trade in Mindanao was US\$ 5.28 billion in 2008, an increase of 41% from the previous year. Total export earnings in 2008 were US\$ 3.39 billion, an increase of 31% from the previous year. (Mindanao Economic Development Council (MEDCO), 2009) In 2008, the main exports were coconut oil (25.3% of the total Mindanao exports), bananas (16%), prepared or preserved fish (9.5%), prepared or preserved fruits (7.3%) and, organic chemicals (lauryl, cetyl and stearyl alcohol) (4.7%). Other commodities were nickel ores, iron ore agglomerates (sinters), fresh and frozen fish, desiccated coconuts, and fruit juices. Despite the lack of the disaggregated data in the ARMM, it is fair to say that the ARMM contributed to exporting through primary products.

Mindanao's total imports registered an increase of 63% in 2008 from the previous year. Rice accounted for 24% of total imports. Other imports were semi-finished products of iron or non-alloy steel (9%), wheat and muslin (7.8%), urea (5.4%), uncoated craft paper and paperboard (5.3%).

2-2-3 Investment

According to the newspaper reports in December 2010 on the Board of Investment (BOI) of the Philippines, the amount of certified investment in 2010 recorded Php 299 billion and a remarkable increase of 93% from the previous year. However, since there were many capital intensive investments such as in power sector, the total estimated employment generation decreased significantly from the previous year.

It was reported that in the non-ARMM regions of Mindanao in 2008, 40 enterprises made a total investment of Php 13 billion and provided 11,546 jobs. Compared to the previous year, annual investments grew by 72% and the number of jobs by 218%. The top three performing investment sectors in 2008 were the following: i) the power sector; ii) hog/swine raising; and

iii) mineral extraction. Region 10 emerged with the highest investment equity share at Php 8.2 billion, or 60.3% in Mindanao because of the capital infusion from the power generation sector. 60% of the total Foreign Direct Investment (FDI) in Mindanao was from Japan¹³.

In the ARMM, the total registered enterprises in the RBOI up until 2010 were 23 with a total investment of Php 9.6 billion and an estimated employment of 17,695 jobs¹⁴. However, out of the 23 enterprises, 9 (39%) are closed down or not operational and there are only 14 active enterprises with 10,410 jobs and a project cost of Php 3.3 billion. It can be said that the level of investment in the ARMM has been very low. The investments were concentrated in the agriculture sector and in the provinces of Maguindanao and Lanao del Sur. There is only one active investment project in Island Provinces. Two enterprises were approved for pre-registration: a copper ore company in Tawi-Tawi and a resort hotel in Marawi City.

RBOI officials reported that the number of foreign investors who showed interest in the ARMM significantly decreased after the massacre in Maguindanao in 2009. According to several stakeholders, the low level of investment in the ARMM is caused by security problem and differences in religion, culture, and society¹⁵. However, the Southern Philippine Development Authority in Mindanao explained that investors from Saudi Arabia showed interest in their proposed agriculture project covering 24,000 ha in Lanao del Sur. Uni Fruitti, a large investor in the ARMM, also plans to expand its fruit plantations in Maguindanao and Lanao del Sur. Although the ARMM is in a very difficult situation in improving its image for investment promotion, there are still possibilities to invite new investment or expand the existing investments where the security situation is stable and a high return on investment is expected.

2-2-4 Primary Industry

In this section, current performance of the primary sectors: agriculture, fisheries and livestock, whose contribution to the GRDP of the ARMM is about 60% and which plays an important role in the economic performance of the region, is briefly reported. More discussion on particular products of the sectors is then to be developed in Chapter 5.

¹³ MEDCO, Report on Mindanao's Investment Performance as of December 2008. The latest data will be followed.

¹⁴ These include two bus passenger businesses based in Davao but operating between the ARMM and Davao. The current total employment numbers in the ARMM enterprises has to be verified.

¹⁵ From the interviews with the ARMM Business Council and businesses in Davao.

2-2-4-1 Agriculture

(1) Staple Food

Rice and corn are staple food in the whole nation; moreover, cassava is important alternative food for rice in the islands provinces of the ARMM. Table 2-11 shows harvested area and production of those products in the ARMM.

The ARMM ranked ninth among the 16 regions of the Philippines in terms of the total amount of palay¹⁶ production in 2009, comprising 3.6% of the total national output. In 2009, the total area harvested in the ARMM was 204,760 ha, and the total volume of palay production was 579,747 tons. The province with the largest share of palay production in the ARMM was Maguindanao, followed by Lanao del Sur. Maguindanao has the largest irrigated area in the region (61.4%) and irrigation has been increasing in other provinces as well.

As for palay, Maguindanao recorded the highest productivity with irrigated areas in 2009 at 3.66 tons/ha, which is close to the national average of 3.95 tons/ha. It is worth noting that the productivity of the island provinces (Basilan, Sulu and Tawi-Tawi) was much lower than the regional average.

The ARMM ranks fourth among the corn producing regions with 332,065 ha of corn in 2009. Although the area was decreased slightly from 334,482 ha in 1999, the production increased from 685,987 tons to 950,429 tons by 38.5%, implying the increased productivity. In the region, the harvest area for corn is more than double of that allocated for rice, since it is produced both as staple cereal (the white Flint variety) and as feed grain (the yellow variety).

¹⁶ Palay is paddy or rough rice.

Table 2-11: Harvested Areas and Production of Palay, Corn and Cassava

Country/ Region/ Province	Crop	Type	Area Harvested (ha)				Production (ton)			
			1999	2004	2009	AAGR (%) (99-09)	1999	2004	2009	AAGR (%) (99-09)
Philippines	Palay	Total	3,999,839	4,126,645	4,532,310	1.3	11,786,625	14,496,784	16,266,417	3.3
		Irrigated	2,664,629	2,792,196	3,055,763	1.4	8,917,882	10,941,836	12,083,264	3.1
		Rainfed	1,335,210	1,334,449	1,476,547	1.0	2,868,743	3,554,948	4,183,153	3.8
	Corn	Total	2,642,208	2,527,135	2,683,890	0.2	4,584,593	5,413,386	7,034,033	4.4
		White	1,607,755	1,562,347	1,402,845	-1.4	1,823,834	2,227,430	2,316,434	2.4
		Yellow	1,034,453	964,788	1,281,045	2.2	2,760,759	3,185,956	4,717,599	5.5
	Cassava	Total	223,622	205,755	215,933	-0.3	1,890,315	1,640,520	2,043,719	0.8
ARMM	Palay	Total	153,935	186,145	204,760	2.9	348,485	490,904	579,747	5.2
		Irrigated	44,037	56,641	52,971	1.9	125,118	208,933	193,966	4.5
		Rainfed	109,898	129,504	151,789	3.3	223,367	281,971	385,781	5.6
	Corn	Total	334,482	289,977	332,065	-0.1	685,986	657,963	950,429	3.3
		White	255,767	246,188	257,485	0.1	422,614	494,010	692,633	5.1
		Yellow	78,715	43,789	74,580	-0.5	263,372	163,953	257,796	-0.2
	Cassava	Total	107,056	107,056	94,071	-1.3	1,192,118	940,811	1,003,542	-1.7
Maguindanao	Palay	Total	105,950	127,984	142,755	3.0	242,766	355,055	396,719	5.0
		Irrigated	31,198	40,961	32,500	0.4	88,635	156,940	123,640	3.4
		Rainfed	74,752	87,023	110,255	4.0	154,131	198,115	273,079	5.9
	Corn	Total	125,437	158,735	194,942	4.5	250,435	358,978	609,046	9.3
		White	79,559	138,320	134,453	5.4	123,863	291,665	396,809	12.3
		Yellow	45,878	20,415	60,489	2.8	126,572	67,313	212,237	5.3
	Cassava	Total	948	990	805	-1.6	6,958	5,144	4,403	-4.5
Lanao del Sur	Palay	Total	39,946	51,744	58,067	3.8	92,855	108,244	175,679	6.6
		Irrigated	12,379	15,220	19,663	4.7	35,180	50,569	67,854	6.8
		Rainfed	27,567	36,524	38,404	3.4	57,675	57,675	107,825	6.5
	Corn	Total	202,493	125,480	133,442	-4.1	429,639	294,796	338,202	-2.4
		White	169,656	102,106	119,351	-3.5	292,839	198,156	292,643	0.0
		Yellow	32,837	23,374	14,091	-8.1	136,800	96,640	45,559	-10.4
	Cassava	Total	40,848	29,180	29,220	-3.3	755,876	478,421	490,825	-4.2
Basilan	Palay	Total	1,929	1,510	1,330	-3.6	3,982	3,711	3,303	-1.9
		Irrigated	460	460	712	4.5	1,303	1,424	2,184	5.3
		Rainfed	1,469	1,050	618	-8.3	2,679	2,287	1,119	-8.4
	Corn	Total	3,497	2,836	679	-15.1	3,396	1,838	433	-18.6
		White	3,497	2,836	679	-15.1	3,396	1,838	433	-18.6
		Yellow	0	0	0	-	0	0	0	-
	Cassava	Total	18,650	17,215	17,221	-0.8	207,985	210,658	232,143	1.1
Sulu	Palay	Total	4,330	3,256	2,078	-7.1	6,062	3,850	2,914	-7.1
		Irrigated	0	0	96	-	0	0	0	-
		Rainfed	4,330	3,256	1,982	-7.5	6,062	3,850	2,914	-7.1
	Corn	Total	1,779	1,345	1,520	-1.6	1,434	941	1,149	-2.2
		White	1,779	1,345	1,520	-1.6	1,434	941	1,149	-2.2
		Yellow	0	0	0	-	0	0	0	-
	Cassava	Total	28,100	25,970	27,850	-0.1	145,701	150,342	178,324	2.0
Tawi-Tawi	Palay	Total	1,780	1,651	530	-11.4	2,820	2,563	844	-11.4
		Irrigated	0	0	0	-	0	0	0	-
		Rainfed	1,780	1,651	530	-11.4	2,820	2,563	844	-11.4
	Corn	Total	1,276	1,581	1,482	1.5	1,082	1,410	1,599	4.0
		White	1,276	1,581	1,482	1.5	1,082	1,410	1,599	4.0
		Yellow	0	0	0	-	0	0	0	-
	Cassava	Total	18,510	18,960	18,975	0.2	75,598	96,246	97,847	2.6

Source: Bureau of Agricultural Statistics (BAS)

The areas devoted to the production of white flint varieties are in the island provinces. Meanwhile, the major users of yellow corn are feed and oil millers. The cultivation of yellow corn in the mainland provinces has been influenced by the demand of processors in other regions of Mindanao. In 2009, the largest corn producing province in the region was Maguindanao with 64.1% of the total production in the region, followed by Lanao del Sur with 35.6%.

Cassava is also a staple food substituting palay for people in the island provinces of Basilan, Sulu and Tawi-Tawi though it can be used for starch and animal feeds. The ARMM ranks first in the Philippines in the production of cassava with a land area of 94,071 ha in 2009, contributing around 49.1% of the national total production. Lanao del Sur is the major producer among the provinces in the region with 29,220 ha of cassava in 2009, comprising 31.1% of the total land area planting cassava in the region. It is particularly for starch processing.

(2) Cash Crops and Fresh Fruits

Average annual growth rate of some major cash crops and fresh fruits from 1999 to 2008 is tabulated in Table 2-12. As a whole in the ARMM, each growth differs by commodity: i) abaca' production is decreased with annual rate of minus 1.0% with reduction of harvested areas, ii) banana shows a steady upturn for both production with 2.0% of growth rate and harvested areas with 1.8%, iii) coconut also shows a growth of 2.1% for production and 1.4% for harvested areas, iv) coffee growth remains stagnant with slight increase of production and decrease of harvested areas, and v) rubber grows with high rate of 5.4% in production and 5.8% in harvested areas.

With regard to abaca, the ARMM ranks fifth in the country for both harvested area and volume of production, comprising about 6% of the total national harvested area, and about 7% of the total volume of production. Sulu has the largest harvested area and production volume, followed by Lanao del Sur.

As for banana, the Philippines is the world's fifth largest producer and second largest exporter of bananas. The prospects for bananas in domestic and foreign markets are promising. 80% of the country's total banana production comes from Mindanao. The ARMM accounted for about 7% of the total banana harvest area and about 4% of the production volume in the Philippines. La Frutera, Inc. and AGRODEX are the leading banana export firms located in Maguindanao.

Table 2-12: Areas Harvested and the Production of Major Cash Crops and Fruits

Country/ Region/ Province	Crop	Area Harvested (ha)				Production (ton)			
		1999	2004	2008	AAGR (%) (99-08)	1999	2004	2008	AAGR (%) (99-08)
Philippines	Abaca	111,384	127,461	137,520	2.4	73,125	74,465	68,386	-0.7
	Banana	372,127	414,510	438,593	1.8	4,570,640	5,631,250	8,687,624	7.4
	Coconut	3,137,881	3,258,576	3,379,741	0.8	11,589,010	14,366,184	15,319,527	3.1
	Coffee	133,208	131,206	123,269	-0.9	104,124	102,865	97,428	-0.7
	Rubber	91,536	80,696	123,260	3.4	214,575	311,294	411,044	7.5
ARMM	Abaca	9,721	7,599	7,914	-2.3	5,252	4,892	4,779	-1.0
	Banana	26,435	31,029	30,988	1.8	312,770	380,629	373,486	2.0
	Coconut	276,411	281,347	314,415	1.4	1,033,661	1,154,403	1,250,054	2.1
	Coffee	13,804	13,600	13,725	-0.1	10,798	10,517	10,922	0.1
	Rubber	12,765	8,102	21,144	5.8	19,657	26,602	31,494	5.4
Maguindanao	Abaca	1,561	428	105	-25.9	699	219	56	-24.5
	Banana	11,904	15,920	15,681	3.1	161,548	216,503	213,603	3.2
	Coconut	59,926	60,115	93,275	5.0	369,767	419,870	502,305	3.5
	Coffee	4,429	4,276	4,279	-0.4	3,727	3,170	3,363	-1.1
	Rubber	425	414	295	-4.0	188	73	36	-16.8
Lanao del Sur	Abaca	1,410	2,169	2,460	6.4	1,086	2,133	1,747	5.4
	Banana	4,203	4,801	4,915	1.8	100,762	116,520	107,689	0.7
	Coconut	47,695	46,420	46,380	-0.3	154,324	170,098	170,725	1.1
	Coffee	2,357	2,357	2,440	0.4	298	282	279	-0.7
	Rubber	-	225	100	-	-	4,454	594	-
Basilan	Abaca	-	147	241	-	-	-	64	-
	Banana	7,097	7,094	7,094	0.0	21,994	20,852	23,747	0.9
	Coconut	47,822	67,853	67,763	3.9	144,925	209,297	215,458	4.5
	Coffee	3,555	3,296	3,296	-0.8	1,776	2,105	2,050	1.6
	Rubber	12,340	7,463	20,749	5.9	19,469	22,075	30,864	5.3
Sulu	Abaca	6,750	4,854	5,102	-3.1	3,467	2,540	2,910	-1.9
	Banana	2,532	2,500	2,572	0.2	19,056	17,526	19,167	0.1
	Coconut	76,697	66,902	66,940	-1.5	219,622	201,821	212,762	-0.4
	Coffee	3,326	3,542	3,579	0.8	4,846	4,826	5,092	0.6
	Rubber	-	-	-	-	-	-	-	-
Tawi-i-Tawi	Abaca	-	-	6	-	-	-	2	-
	Banana	699	714	726	0.4	9,410	9,228	9,280	-0.2
	Coconut	44,271	40,057	40,057	-1.1	145,024	153,317	148,805	0.3
	Coffee	137	129	131	-0.5	151	134	137	-1.1
	Rubber	-	-	-	-	-	-	-	-

Source: BAS

The Philippines remains the world's leading supplier of traditional coconut products. The ARMM contributed about 9% of the total area harvested and about 8% of the total production volume in the country. In the region, Maguindanao is the largest producer of coconuts, followed by Basilan, Sulu and Lanao del Sur.

In terms of coffee production, the ARMM accounts for about 11% of both the total area harvested and the production volume in the country. In the region, Maguindanao has the largest land area devoted to coffee, mostly Robusta; however, it should be noted that, in terms of production volume, Sulu has a larger volume than Maguindanao, followed by Basilan.

The rubber cultivation area in the ARMM accounted for about 10% of the total national production area. Basilan has the largest land area in the region devoted to rubber plantation, comprising more than 95% of the total rubber cultivation area. Rubber has significantly increased its harvested area and production volume in the last nine years.

2-2-4-2 Fisheries

(1) General Feature

There are abundant fishery resources in the ARMM. There are two types of major fishing grounds: coastal and marine water areas, such as seas, bays, and straits; and inland water areas such as lakes, marshlands and rivers. Major fishing grounds for commercial fishing operations are Sulu Sea, Celebes Sea, and Moro Gulf. The rest of coastal water areas are generally located within municipal waters. Basilan, Sulu, and Tawi-Tawi are island provinces surrounded by vast marine fishing grounds. The contribution of Maguindanao and Lanao del Sur to fisheries production comes mostly from their major inland freshwater resources. The major inland fishing areas in the ARMM are Lake Lanao in Lanao del Sur, the largest freshwater lake in the country, and the Ligawasan Marsh and Lake Buluan in Maguindanao.

The ARMM is the region with the largest fisheries production in the Philippines. Table 2-13 shows the detail of the fisheries products in the ARMM. Out of the total fisheries production of the Philippines in 2009 which was 508 million tons, the ARMM accounted for 17.4%. The ARMM's dominance in fisheries production is due to the robust aquaculture sector, especially seaweed culture production. The ARMM's aquaculture industry is concentrated in the island provinces, mainly Tawi-Tawi and Sulu. Tawi-Tawi is the leading province of fisheries production in the ARMM, reporting 418,364 tons in 2009, because of a large production of seaweed culture. It accounts for 47.1 % of the regional fisheries production, followed by Sulu (33.8%) and Maguindanao (12.0 %). Sulu is the center of marine commercial fishing in the ARMM, responsible for 75.7% of the total production of marine commercial fishing in the ARMM. There are 43 commercial fisheries ports in Sulu out of the total of 53 in the ARMM.

The labor force of the ARMM engaged in the fisheries sector was about 200,000 workers, consisting of 5,329 in Lanao del Sur, 13,567 in Maguindanao, 158,155 in Sulu, and 27,304 in Tawi-Tawi (the number in Basilan is unknown)¹⁷. The fisheries sector is vital to the livelihood of a majority of the people in the island provinces.

¹⁷ From the preliminary evaluation study by JICA, 2009: source is unknown

Table 2-13: Fisheries Production

Country/ Region/ Province	Type	Production (in metric tons)					AAGR (%) (05-09)
		2005	2006	2007	2008	2009	
Philippines	Total	4,161,870	4,408,473	4,711,252	4,966,889	5,084,520	5.1
	Aquaculture	1,895,847	2,092,276	2,214,826	2,407,698	2,477,392	6.9
	Commercial	1,133,976	1,080,668	1,192,070	1,226,205	1,258,975	2.6
	Municipal						
	Inland	143,806	161,394	168,277	181,678	188,721	7.0
Marine	988,240	1,074,134	1,136,079	1,151,309	1,159,431	4.1	
ARMM	Total	674,955	738,540	801,129	852,944	887,676	7.1
	Aquaculture	513,104	566,580	624,039	664,732	691,187	7.7
	Commercial	83,144	84,254	84,107	88,905	92,384	2.7
	Municipal						
	Inland	17,475	18,058	18,725	20,737	20,790	4.4
Marine	61,232	69,648	74,258	78,570	83,316	8.0	
Maguindanao	Total	31,753	77,347	85,429	99,598	106,498	35.3
	Aquaculture	16,883	61,152	69,847	81,161	87,753	51.0
	Commercial	1,665	1,795	248	878	1,029	-11.3
	Municipal						
	Inland	9,062	9,172	10,276	11,791	11,755	6.7
Marine	4,143	5,227	5,058	5,768	5,961	9.5	
Lanao del Sur	Total	25,377	25,630	24,864	25,670	25,924	0.5
	Aquaculture	67	54	51	58	60	-2.7
	Commercial	2,795	2,682	2,646	2,748	2,792	0.0
	Municipal						
	Inland	8,407	8,879	8,442	8,938	9,027	1.8
Marine	14,108	14,016	13,725	13,927	14,046	-0.1	
Basilan	Total	29,566	29,761	32,082	34,849	37,032	5.8
	Aquaculture	4,263	4,148	4,993	6,407	6,460	11.0
	Commercial	16,719	15,994	16,058	16,784	17,976	1.8
	Municipal						
	Inland	7	7	7	8	8	3.4
Marine	8,577	9,613	11,023	11,650	12,588	10.1	
Sulu	Total	263,531	259,237	269,759	285,690	299,858	3.3
	Aquaculture	184,776	178,150	187,236	199,206	210,255	3.3
	Commercial	61,965	63,783	64,766	67,874	69,924	3.1
	Municipal						
	Inland	-	-	-	-	-	-
Marine	16,790	17,304	17,757	18,610	19,679	4.0	
Taw i-Taw i	Total	324,728	346,565	388,995	407,137	418,364	6.5
	Aquaculture	307,114	323,076	361,912	377,900	386,659	5.9
	Commercial	-	-	389	622	663	-
	Municipal						
	Inland	-	-	-	-	-	-
Marine	17,614	23,489	26,693	28,615	31,042	15.2	

Source: BAS

(2) Marine Commercial Fishing

Marine commercial fishing refers to large or medium-scale fishing operations with fishing boats with a capacity of more than three gross tons for trade, business or profit beyond subsistence or sports fishing. Very few commercial fishing vessels are registered with the Bureau of Fisheries and Aquatic Resources (BFAR) in the ARMM. In 2008, the number of commercial fishing vessels was only 18 in the ARMM out of the total 2,358 in the country. As the ARMM has no large scale fishing ports for offshore fishing, the commercial fishing production in the ARMM was limited to only 92,384 tons in 2009, or 7.3 % to the total

production in the country. Marine commercial fishing in the ARMM is largely concentrated in Sulu which accounted for 69,924 tons in 2009 or 75.7 % of the total regional production, followed by Basilan (19.5 %). Sulu is the fifth leading fisheries producing province in the Philippines under the commercial fishing sector. Meanwhile, commercial fishery production in the ARMM grew at a 2.8 % annual average rate from 2005 to 2009.

(3) Marine Municipal Fishing

Marine municipal fishing means small-scale fishing operations carried out in coastal water areas with or without pump boats or canoes weighing three gross tons or less. In 2009, the ARMM recorded 83,316 tons in this sector, comprising 2.7 % to the national production. Tawi-Tawi posted the highest production of marine municipal fishing in the ARMM with 31,042 tons in 2009 or 37.3 % of the total national production. Sulu province followed by Tawi-Tawi at 23.7 % of regional production, and Lanao del Sur at 16.9 %. High production in Tawi-Tawi and Sulu was attributed to the large number of coastal municipalities, the vastness and productivity of their fishing grounds, and the large number of artisanal fishers. It should be noted that illegal fishing, such as dynamite fishing, is a serious problem on coastal fishing operation in the ARMM. Therefore, coastal resource management is an urgent issue to be addressed.

(4) Inland Municipal Fishing

Inland municipal fishing refers to the fishing operations in inland water areas, such as lakes, rivers, dams, and marshes. Inland municipal fishing involves the use of simple gears and canoes, most of which are non-motorized with a capacity of three gross tons or less. The annual production of inland municipal fisheries in the ARMM was 20,790 tons in 2009, which is equivalent to 11.0 % of the national production. Inland municipal fishing is mainly conducted in Maguindanao and Lanao del Sur. The production of inland municipal fishing in those provinces contributes only 9.4 % of the fishing production in the ARMM in 2009.

Among the provinces in the Philippines, Maguindanao is the fourth leading producer in terms of inland municipal fishing. In the last five years, inland fishing production in Maguindanao increased with a 7.4% annual growth rate. Maguindanao has vast freshwater resources: 30,000 ha in Ligawasan Marsh and 8,000 ha in Lake Buluan. Moreover, in Lanao del Sur, the inland fishing production is largely generated at Lake Lanao (36,000 ha) and Lake Dapao (1,000 ha). The production of Lake Lanao did not significantly increase due to the introduction of foreign fish species, such as katulong (a sort of goby), which expelled indigenous fish species.

(5) Aquaculture

Table 2-14 shows aquaculture production in the Philippines. The ARMM is one of the leading regions of aquaculture production in the Philippines. The aquaculture production in the ARMM accounted for 664,732 tons annually or 27.6 % of the total national production in 2008. Tawi-Tawi is the leading province of aquaculture production in the ARMM with 418,364 tons annually or 55.9 % of the regional production. Sulu province follows Tawi-Tawi at 30.4%.

Seaweed culture composes the dominantly largest portion of aquaculture production in the ARMM. Especially, Seaweed culture production is especially larger in Tawi-Tawi and Sulu. Brackish-water pond culture, mostly done in Maguindanao and Basilan, contributes only 4.3 % of total aquaculture production in the region. Aquaculture activities of freshwater culture in fish ponds, cages and pens did not make significant contributions to the total aquaculture production. In contrast, Lanao del Sur posts the lowest aquaculture production in the ARMM.

Table 2-14: Aquaculture Production by Culture Types, Water Areas, and Region (2008)

Region	Total Aqua-culture	Brackishwater				Freshwater				Marin Waters			Oyster Mussel and Seaweed	SFR	Rice Fish
		Fish-pond	Fish Cage	Fish Pen	Total	Fish-pond	Fish Cage	Fish Pen	Total	Fish Cage	Fish Pen	Total			
NCR	3,053	576	0	0	576	434	1,939	2,373	0	0	0	103	0	0	
CAR	3,196	0	0	0	0	1,667	1,528	0	3,195	0	0	0	0	0	
Region 1	95,862	25,698	1,436	3,999	31,133	5,653	49	0	5,702	41,494	11,074	52,568	6,416	40	2
Region 2	15,586	4,035	212	0	4,248	7,381	977	0	8,358	0	0	0	2,881	99	0
Region 3	223,481	95,536	3	0	95,539	119,279	6	0	119,285	2,468	32	2,500	6,068	90	0
Region 4-A	202,478	12,550	0	0	12,550	1,997	83,744	51,483	137,224	5	514	519	52,186	0	0
Region 4-B	455,048	5,072	0	0	5,073	576	0	0	576	2,246	0	2,246	447,153	0	0
Region 5	67,049	5,379	1	0	5,380	1,822	9,054	0	10,876	10	0	10	50,783	0	0
Region 6	142,066	72,172	11	0	72,193	859	1	0	860	40	1,076	1,116	67,881	18	1
Region 7	121,528	8,994	11	10	9,005	133	10	0	143	764	53	817	111,557	5	0
Region 8	37,902	5,646	19	0	5,681	204	108	33	345	7,513	42	7,555	24,332	0	0
Region 9	240,981	18,081	0	16	18,081	131	0	0	131	34	0	34	222,735	0	0
Region 10	60,356	22,738	0	0	22,738	1,323	1	0	1,324	457	16	473	35,821	0	0
Region 11	22,700	4,900	60	0	4,960	1,096	3	20	1,119	4,395	9,231	13,626	2,995	0	0
Region 12	24,621	8,432	0	0	8,432	845	1,765	11,680	14,290	1,709	0	1,709	189	1	0
Region 13	27,059	3,789	929	41	4,759	228	108	0	336	289	176	465	21,498	0	0
ARMM	664,732	2,898	0	0	2,898	204	230	4,231	4,665	1	9	10	657,159	0	0
TOTAL	2,407,698	296,496	2,682	4,066	303,246	143,398	98,018	69,387	310,803	61,425	22,223	83,648	1,709,757	253	2

(unit: tons)

Source: Bureau of Fisheries and Aquatic Resources (BFAR)

To promote aquaculture industry among coastal communities, Mariculture Parks are set up all over the country. This concept is similar to an industrial park. Each park is about 500 ha with related facilities such as fish landing places, ice machines, and fish markets. One park is established in Tawi-Tawi. High quality marine products are exported to Manila and Hong Kong, after collection in Zamboanga City from island provinces of the ARMM. The demands of marine products, such as grouper, abalone, sea cucumber, and lobster, in domestic and

foreign markets are very high. With a Php 10 million investment from the national government, a Marine Multi-species Hatchery was established in Tawi-Tawi in 2008, currently producing abalone and grouper seeds.

2-2-4-3 Livestock

Livestock meats are important food and source of protein for local people in the ARMM. In the ARMM, livestock is mostly raised in small-scale backyard farms. The number of commercial farms in the ARMM is less than 1% of total number of livestock. That is, farm households in general raise a few heads of livestock. Crop species for forage or fodder trees are less common in the ARMM. It is rare to observe any technologies related to livestock production such as artificial inseminations, feed storage facilities for hay and silage making, and feed formulations in the ARMM. Raising livestock like goats, cattle, carabaos and chickens usually follow traditional ways. Namely, livestock is kept in shades and cages from late afternoon to evening and in early morning the animals are again led to the field for grazing. Usually, chickens are also raised in free-range in grassy areas. There are almost no processed products. Mostly, livestock is slaughtered for consumption in both ordinary days and special occasions.

Basically, ways of raising livestock are in small-scale and they are almost the same among the provinces in the ARMM. Although there are some commercial livestock farms, they are still relatively underdeveloped in terms of infrastructure and technology. Even though the ARMM's overall production of livestock increases, it's still not enough to meet the demands of local and international markets.

Table 2-15 shows the number of livestock heads in the ARMM, as well as nationwide. In order to evaluate the number of animals with the different sizes by kinds, BAS introduced the BAS Animal Unit Calculation Method¹⁸. With this method, the ranking of the kind of livestock by the animal units differs by province. The most common livestock in each province is: carabao in Maguindanao and Basilan, goat in Lanao del Sur, and cattle in Sulu and Tawi-Tawi.

In Maguindanao, carabao is the most common livestock, followed by cattle, goat, chicken, and duck. In the province where the majority of the land is for agricultural purposes, carabao is still widely used for plowing land because most farmers cannot afford heavy machineries to plow and cultivate their lands.

¹⁸ The animal unit calculation is introduced and analyzed for production data of BAS. The unit is to evaluate the number of animal synthetically among the different size of animal. It is based on cattle. Carabao is counted as one unit per head, pig is as five heads, sheep and goat is as 10 heads, rabbit is as 50 heads, duck and chicken are considered as one unit by 100 heads, respectively. All the data about number of livestock is obtained from BAS.

In Lanao del Sur, goat is the most dominant animal in terms of the animal unit. This is because of the huge demand from inhabitants there and in nearby provinces. Lanao del Sur also has large land for forage. Its elevated topographical features make goat the most popular livestock in the province, while carabao is the common livestock in flat areas. The next dominant animal in the province is carabao, followed by cattle, chicken, and duck.

In Basilan, one of the most impoverished provinces, the most common livestock is carabao, because farmers who are incapable of having modern machineries use carabaos to plow their lands. Moreover, it is commonly considered that having carabaos is an investment for farmers in preparation for emergencies. Cattle, chicken, goat, and duck follow after carabao.

In Sulu, cattle is the most popular livestock, followed by chicken, goat, carabao and duck. Unlike in other provinces, carabao is ranked at only fourth. The reason is that Sulu's main industries are fisheries and marine so that carabao is not so required for agricultural use as in other areas.

Also in Tawi-Tawi, cattle is the most dominant animal, followed by chicken, goat, carabao, and duck. It is considered that Tawi-Tawi is topographically similar with Sulu, thus the feature of livestock industry is almost identical each other. Like Sulu, the main income generating activities in the province are fisheries and other marine culture activities. Therefore carabao is not widely used for cultivation.

Table 2-15: Number of Livestock Heads

Country/ Region/ Province	Livestock & Poultry	2005	2006	2007	2008	2009	2010	AAGR (%) (05-10)
Philippines	Carabao	3,326,833	3,360,675	3,383,621	3,338,570	3,320,966	3,320,302	0.0
	Cattle	2,547,956	2,519,740	2,565,849	2,566,492	2,586,386	2,596,031	0.4
	Chicken	136,000,904	134,332,861	135,624,327	154,272,036	158,663,075	158,927,340	3.2
	Duck	10,438,739	11,146,745	10,161,581	10,508,205	10,577,395	10,370,213	-0.1
	Goat	3,535,195	3,735,816	4,048,550	4,174,251	4,222,234	4,203,707	3.5
	Pg	12,139,690	13,046,680	13,459,330	13,701,020	13,596,399	13,397,789	2.0
ARMM	Carabao	177,409	194,933	208,136	221,022	223,711	218,630	4.3
	Cattle	97,458	97,972	102,284	104,596	109,644	103,761	1.3
	Chicken	1,907,873	1,976,389	2,041,935	2,367,876	2,493,979	2,772,323	7.8
	Duck	405,561	366,917	389,209	367,929	355,899	286,877	-6.7
	Goat	197,837	223,669	245,904	252,948	261,623	268,516	6.3
	Pg	58,010	78,110	153,220	272,480	236,175	214,241	29.9
Maguindanao	Carabao	115,147	131,757	142,168	153,931	154,815	150,427	5.5
	Cattle	40,253	40,898	41,763	41,937	37,989	34,963	-2.8
	Chicken	755,407	742,862	672,298	773,410	909,832	774,575	0.5
	Duck	328,189	295,100	308,494	296,096	277,072	210,170	-8.5
	Goat	104,700	117,203	118,918	122,284	117,538	108,772	0.8
	Pg	38,570	53,930	121,140	236,800	195,893	172,838	35.0
Lanao del Sur	Carabao	50,915	50,729	52,068	51,661	51,680	49,520	-0.6
	Cattle	36,070	37,246	42,194	44,962	44,954	40,982	2.6
	Chicken	545,688	595,616	612,264	759,747	509,856	929,448	11.2
	Duck	44,424	33,102	41,493	29,641	29,641	27,498	-9.1
	Goat	50,573	57,084	63,338	60,303	62,061	75,204	8.3
	Pg	2,240	2,670	2,700	2,450	2,386	1,483	-7.9
Basilan	Carabao	10,795	11,888	13,334	14,794	16,449	17,789	10.5
	Cattle	3,303	3,676	3,685	5,554	13,675	14,949	35.3
	Chicken	148,354	145,691	217,854	223,160	323,510	302,800	15.3
	Duck	6,737	6,890	7,395	7,377	7,730	8,884	5.7
	Goat	16,170	19,482	24,392	23,678	26,090	26,682	10.5
	Pg	16,170	20,260	28,260	32,200	36,726	38,496	18.9
Sulu	Carabao	416	451	470	535	644	757	12.7
	Cattle	14,982	13,580	12,150	9,745	10,367	10,542	-6.8
	Chicken	370,849	400,415	433,927	486,578	585,703	582,822	9.5
	Duck	18,944	25,254	25,177	27,828	34,063	33,132	11.8
	Goat	15,372	19,689	29,042	36,045	42,949	40,662	21.5
	Pg	620	570	410	380	487	550	-2.4
Taw i-Taw i	Carabao	136	108	96	101	123	137	0.1
	Cattle	2,850	2,572	2,492	2,398	2,659	2,325	-4.0
	Chicken	87,575	91,805	105,592	124,981	165,078	182,678	15.8
	Duck	7,267	6,571	6,650	6,987	7,393	7,193	-0.2
	Goat	11,022	10,211	10,214	10,638	12,985	17,196	9.3
	Pg	410	680	710	650	683	874	16.3

Source: BAS

2-2-5 Secondary Industry

(1) Overview of enterprise distribution

According to the NSO, there are 7,993 enterprises in the ARMM, of which 1,066 (13.3%) are

in the secondary industry¹⁹. Compared with the distribution of enterprises in the Philippines, the ratio of the secondary industries in the ARMM is slightly smaller than the ratio of 15% for the Philippines, while a greater concentration in wholesale/retail business enterprises are observed in the ARMM (Figure 2-11).

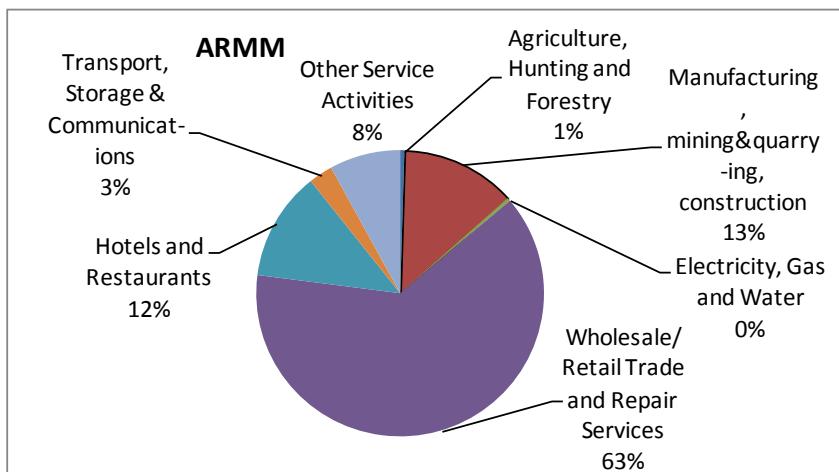


Figure 2-11: Distribution of Businesses in the ARMM
Source: NSO

On the other hand, the number of establishments that have registered their names with DTI is estimated at 3,402 out of which only 6.7% (229 enterprises) are in manufacturing. The regional distribution differs among the five provinces (Table 2-16). While Mindanao has the largest number of enterprises in manufacturing, wholesale and transport, Lanao del Sur accommodates 1240 enterprises in the service sector including retailers. The total number of establishments registered at DTI is much smaller than the establishments reported by the NSO. This is because many establishments, in particular, micro enterprises are not registered at the DTI. It should be noted that these businesses are concentrated in a few municipalities, particularly the capital town of each province.

Table 2-16: Distribution of Businesses Registered at DTI-ARMM

Sector	Maguindana	Lanao del	Basilan	Sulu	Tawi-Tawi	Total
Manufacturing	69	52	53	23	32	229
Wholesale & Exporter	67	14	44	47	9	181
Retail & other service	653	1,226	409	215	489	2,992
Total	789	1,292	506	285	530	3,402

Source: DTI-ARMM (Unit: Number of enterprises)

¹⁹ "List of Establishments", NSO, 2009

As shown in Figure 2-12, majority (77%) of the manufacturing enterprises are food and natural resources related, which are: bakeries 62 (27%), wood processing 51 (22%), food processing 34 (15%), non-food agriculture processing 14 (6%), water and beverage 9 (4%) and marine processing 6 (3%). (Please refer to the Appendix for the list of the manufacturing enterprises.)

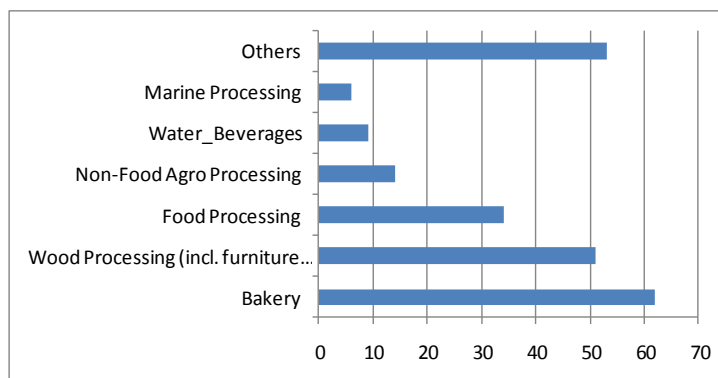


Figure 2-12: Distribution of Manufacturing Enterprises Registered at DTI-ARMM
Source: DTI-ARMM (Unit: Number of enterprises)

(2) Bakeries and Food Processing Enterprises

There are 62 bakeries and 34 food processing establishments in the ARMM. Many bakeries produce sweets such as cakes and local delicacies, in addition to bread. Food processing includes the processing of fruits and vegetables such as jams, and sauce, coffee, sugar, and vinegar. Among the five provinces in the ARMM, Maguindanao has the highest number of such firms.

(3) Non-Food Agro Processing

14 establishments in the ARMM are engaged in processing crops for industrial or non-food use. Basilan has seven establishments processing rubber, organic fertilizer, and virgin coconut oil.

(4) Marine Product Processing

There are only six marine processing enterprises registered at the DTI: three in Basilan, two in Maguindanao, and one in Tawi-Tawi. They include dry fish production enterprises, and seaweed processing.

(5) Mining

Mindanao is rich in mineral resources such as gold, nickel, copper, iron ore, lead, zinc, chromites and magnetite. The mineral production in Mindanao amounted to Php 13.5 billion in

2004, or 25.5% of the national total. Mineral resources existing in the ARMM are shown in Table 2-17. In the ARMM, there are 13 enterprises engaged in mining and quarrying registered at the DTI of which 10 are located in Maguindanao²⁰. According to the DTI Tawi-Tawi Provincial Office, the oil deposits were found on the coast of Tawi-Tawi and Exxon Mobile has started exploration in the area.

Table 2-17: Mineral Resources in the ARMM

Location	Metal	Non-Metal
Maguindanao		
Buluan	Copper, Manganese, Gold, Silver, Iron	
Ampatuan	Iron, Copper, Silver, Lead	Sand & Gravel
Dinaig	Gold Silver	Guano, Clay
Parang	Gold, Copper, Silver, Nickel	
Upi	Gold, Iron, Copper, Zinc	Limestone
Sulután Kudarat		Sand, Gravel, Limestone
Datu Paglas		Sand and Gravel
Sulu		
Jolo		Sand and Gravel
Patikul		Sand and Gravel
Tawi-Tawi		
Maraning	Copper, Chromite	
Languyan	Copper, Chromite	

Source: DENR-ARMM

2-2-6 Tertiary (Service) Industry

In the ARMM, 171 wholesalers, 10 exporters, 148 transport services, 1,791 retailers and 1,040 other services such as restaurants and hotels are registered at the DTI. Figure 2-13 shows the distribution of wholesalers and exporters by product. The major products dealt by wholesalers and exporters are coconut products (45 enterprises) followed by cereal (such as rice and corn), marine products, and other agriculture products. Wholesalers and exporters dealing with agriculture and marine products (123) account for 68% of the total.

²⁰ According to DTI-ARMM Business Names Registration, mining and quarrying is categorized as part of the service sector.

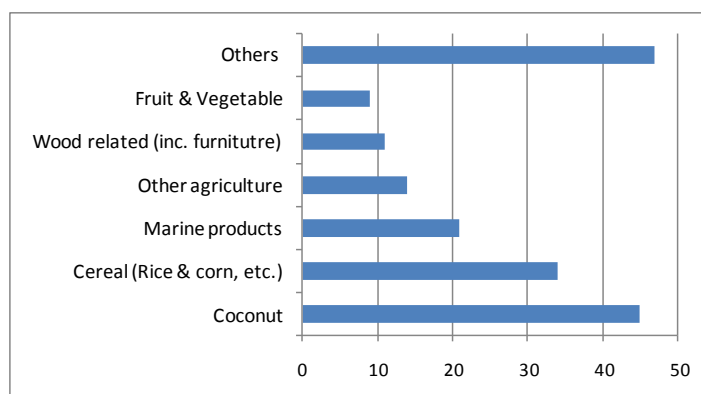


Figure 2-13: Distribution of Wholesalers and Exporters Registered at the DTI-ARMM
 Source: DTI-ARMM (Unit: Number of Enterprises)

2-3 Policies, Regulations and Programs on Regional Development and Local Industry Promotion

2-3-1 Overview

Figure 2-14 illustrates policies and regulations on regional development and local industry promotion at the national, regional, provincial, and municipal levels. The Philippine Development Plan 2011-2016 (PDP) aimed at inclusive growth that creates jobs and reduces mass poverty. The DTI in charge of enterprise development came up with the new Micro Small to Medium Enterprise Development (SMED) Plan, and the Integrated DTI-Regional Operations and Development Group Work Plan.

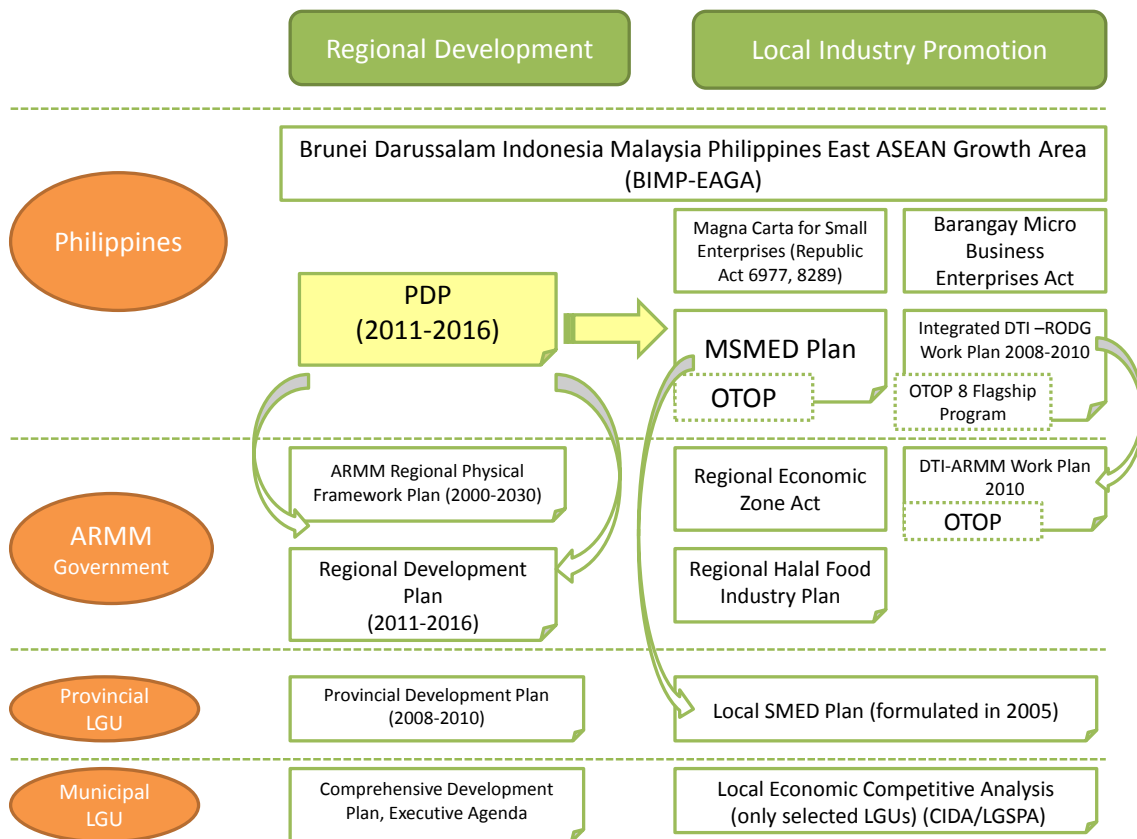


Figure 2-14: Policies, Regulations and Programs for Regional Development and Local Industry Promotion

At the ARMM regional level, the ARMM Regional Physical Framework Plan (2000-2030), a long-term development plan, aims to serve as a major reference for all socioeconomic development planning and decision making in the region. The Regional Development Plan (RDP) and the Medium Term Regional Development Investment Plan (MTRDIP) addresses the region’s contributions towards meeting the goals of the MTPDP. In 2011, the ARMM government drafted the new Regional Development Plan (2011-2016) which is to promote peace and security and sustain economic, political and socio-cultural goals. The Regional Economic Zone Act (REZA) provides the legal basis for setting up and operating a special economic zone in the ARMM. The REZA provides for the establishment of a halal certification body in the ARMM. Halal industry promotion is a flagship program for the ARMM and the ARG formulated the Regional Halal Food Industry Plan.

Provincial LGUs formulate the Provincial Development Plan, while municipal LGUs have the Comprehensive Development Plan or Executive Agenda. Those plans reflect the strategies, prioritized development programs, and projects of the local executives. The local Small to Medium Enterprise Development (SMED) Plans in all provinces of the ARMM were formulated in 2005.

2-3-2 National Level

(1) The Philippine Development Plan (PDP, 2011-2016)

The PDP 2011-2016 lays down a fundamental plan indicating the overall national development goals, strategies and thrusts of the national government. The PDP aims at inclusive growth that creates jobs, draws the majority into the economic and social mainstream, and continuously reduces mass poverty. The inclusive growth will be achieved through i) massive investment in physical infrastructure, ii) transparent and responsive governance, iii) human development, iv) employment generation for wage and self-employed workers, and v) complementary strategies. Under the section of Industry and Service, one of the action plans is to enhance support to micro small medium enterprises (MSMEs) such as provision of BDS (Business Development Service) and access to finance. In the agriculture and fisheries sector, the products with comparative advantage for Philippines are analyzed, which include abaca, banana, coconut, tropical fruits (dried), mango, mangosteen, guava, papaya, and pineapple. The three goals are set as i) improved food security and increased income, ii) increased resilience to climate change risks, and iii) enhanced policy environment and governance. Under the goal of improved food security and increased income, the following strategies are adopted, which are:

- 1) Raise productivity and incomes of agriculture and fishery based households and enterprises through i) diversifying production and livelihood options, ii) delineating municipal waters for better fishery resource management, iii) improving rural infrastructure and facilities including farm to market roads and post-harvest facilities and trading posts, iv) developing markets and sharpen regulatory competence, v) strengthening research, development and extension, vi) improving the sector's credit access, and vii) secure food availability and affordability.
- 2) Increase investments and employment across an efficient value chain through i) creating job opportunities by expanding existing markets, aggressively exploring new markets and promoting private investment, ii) localizing agricultural promotion and development, iii) promoting more value adding into products and develop the capacities of stakeholders for

value-chain management, iv) promoting vertical and horizontal integration of input, production and marketing such as by agro-industry clustering, v) strengthening the agriculture exports by focusing resources on high-value crops (fruits and vegetables, ornamentals, rubber, oil palm, coffee, coconut, etc.) and fishery products (grouper, seabass, seaweeds, etc.), and vi) expanding investments in aquaculture and the food production areas.

- 3) Transform agrarian reform beneficiaries (ARBs) into viable entrepreneurs by i) achieving land tenure stability of the ARBs, ii) strengthen the organizational capacity of ARBs, iii) scale-up microenterprises into formal and viable SMEs, iv) liberalize access to credit by ARBs, v) provide enterprise-based legal support for ARBs, and vi) establish physical infrastructure.

(2) Regulatory Framework for Micro, Small and Medium Enterprises (MSMEs)

The statutory foundations for MSME development are set by Republic Act (R.A.) 9501 of 2008, or the “Magna Carta for Micro, Small and Medium Enterprises,” and the Barangay Micro Business Enterprise Act 9178 (BMBE Act) of 2004. The Magna Carta for MSMEs lays down the basic policies for MSME promotion, provides the definition of MSMEs, and directs the establishment of the institutional framework for the MSME promotion system including MSME Development (MSMED) Councils consisting of public and private stakeholders for coordination, advocacy, and the provision of services to MSMEs for their development. A major amendment in the Magna Carta for SMEs (R.A. 8289 of 1997) is the inclusion of “micro” enterprises as part of the overall strategy and it encourages the growth of MSMEs particularly rural/agriculture based enterprises. The new law recognizes the MSMEs, especially the micro enterprises, potential for employment generation and economic growth. The categorization of the enterprises based on the act is shown in Table 2-18.

Table 2-18: Classification of MSMEs in the Philippines

	Asset Size (PHPM) ^a	Employment ^b
Large	> 100	> 200
Medium	15.001–100	100–199
Small	3.001–15	10–99
Micro	≤ 3	1–9

Source: ^a R.A. 9501; ^b National Statistics Office

According to the new law, the promotion of entrepreneurship, the support of entrepreneurs and the formation of MSMEs will be provided by intensified and expanded training programs in entrepreneurship; facilitating access to sources of funds; assuring MSMEs a fair share of government contracts and related incentives; doing away with stringent and bureaucratic requirements; raising government efficiency; promoting partnerships with the private sector and building linkages between large and small-enterprises. The law also increases the mandatory allocation of credit by lending institutions from 6% to 8% for micro and small enterprises.

The BMBE Act of 2002 was enacted to support eligible micro-enterprises and the informal sector through incentives to local government registered BMBEs. There are exemptions from income tax, a reduction in local taxes, exemption from the payment of minimum wages, financial support from government financial institutions, and technology assistance from government agencies. The BMBE Act, however, has limited enforcement due to a lack of awareness of the procedural guidelines which have not been released to the public.

(3) Small Medium Enterprise Development Plan in the Philippines (SMED Plan, 2004-2010)
The SMED Plan 2004-2010 sought to increase the number of new SMEs, graduate SMEs to the next level, create 6-10 million jobs, triple the loans given to SMEs, and increase the value of SME contributions to the economy. The strategic goals are to: i) increase productivity, production output, sales, and exports; and ii) set up new creative business undertakings. To promote the implementation of the SMED Plans, the DTI held workshops through their regional and provincial offices that formulated the provincial SMED programs and projects.

In implementing the SMED Plan, the activity groups were streamlined into four outcome portfolios: i) an enabling environment for business and investment; ii) access to finance, iii) access to markets; and iv) productivity and efficiency and implement the results-based management (RBM). Major outputs achieved by the SMED Plan include streamlined business permits by LGUs, Business Profile Management Systems, loans to more than 6.3 million firms, assistance to 29,639 firms under OTOP, market assistance to over 13,056 firms, Product R&D assistance to 3,674 MSMEs, 16,774 firms in technology training courses, and so on. Through these efforts, the program generated 6.5 million jobs, Php 20.12 billion in domestic MSME sales, and US\$ 1.8 billion of total MSME exports²¹. Nevertheless, the evaluation report of the plan showed concerns such as low investment activities by MSMEs, a lack of growth among medium-sized firms, and little improvement in access to credit.

²¹ Based on the draft MSMED Plan of DTI, Nov. 2010. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ, currently GIZ) assisted the evaluation of the SMED Plan 2007-2010.

(4) Micro Small and Medium Enterprise Development (MSMED) Plan 2010-2016

In 2011, the MSMED Council consisting of DTI and other public and private stakeholders for MSME Development issued the MSMED Plan for 2010-2016²². The plan reported that the performance of MSMEs has remained constrained by various factors that prevent them from realizing their potentials and surviving and growing in a highly competitive environment. These include high cost of doing business, lack of access to finance and market information and low productivity and competitiveness.

To address the critical constraints of MSMEs, the plan aims to create an enabling business environment and provide government support not only to improve MSME access to finance and expand markets but also to strengthen MSME productivity, competitiveness and their linkage with larger enterprises and value chain networks. Moreover, coordination and monitoring of activities among national agencies and local government units will also be intensified in order to harmonize the implementation of the plan.

The plan targets a 40% contribution of the sector to the gross value added (GVA) and the creation of six million employments by 2016. To achieve these targets, the plan adopted the four following Outcome Portfolios succeeding the previous SMED Plan and the results framework was formulated including expected outcomes for each outcome portfolio. (Refer to Appendix Figure A-1)

- i) Business Environment (BE)
- ii) Access to Finance (A2F)
- iii) Access to Markets (A2M)
- iv) Productivity and Efficiency (P&E)

To implement the plan, the following three approaches have been stipulated.

- Local and Regional Economic Development (LRED): This highlights the importance of the private sector and the roles given by the Local Government Code to LGUs as champions of economic development among others²³.
- Sector Development Approach: To improve the competitiveness of the entire value chain of an individual industry.

²² The plan was formulated through the bottom-up approach in which the DTI held several consultative workshops with the stakeholders to evaluate the current SMED plan and solicit their opinions. However, from the plan, the participation level of the consultation workshops from ARMM cannot be confirmed.

²³ The LRED approach was introduced by the program of GTZ “Small and Medium Enterprise Development for Sustainable Employment Programs (SMEDSEP) which started in 2001 in Visaya. DTI-RODG has adopted the LRED model for nationwide rollout and the ToT has been conducted for trainers from Luzon and Mindanao. (Based on the Presentation Materials of GTZ, “DTI - GTZ Private Sector Promotion Program (SMEDSEP) Updates”).

-
- Market System Development Approach: To address market failures both at the supply and demand sides of the market, allowing MSMEs to be more competitive.

The MSMED Plan will be implemented at the local and regional levels. While the plan identifies the expected results (Outcome Portfolios), the action plans necessary to deliver these results will be crafted and managed at the local and regional levels. Hence, problems that could be addressed at the LGU level need not wait for actions from National Government Agencies.

(5) Integrated DTI-Regional Operations and Development Group Work Plan 2008-2010

The Integrated DTI-Regional Operations and Development Group (RODG) Work Plan 2008-2010 is derived from the DTI Roadmap in the MTPDP. The plan espouses five major final outputs which are: i) increased exports; ii) increased investments; iii) increased competitiveness of MSMEs; iv) ensured welfare of consumers; and v) good governance measures. To achieve these, the RODG will implement strategic programs and projects including export promotion, OTOP projects, and rural micro enterprise promotion. In the Plan, priority industry clusters are indicated by region. In the ARMM, processed food, aqua marine, rubber, Information and Communication Technology (ICT), trade, and services are identified as priority industries.

The programs also include a quality management system and ISO Certification. The DTI has been promoting a performance management system for their regional offices except the ARMM. For example, the DTIs of Regions XI, XII, and IX in Mindanao have been reporting annual accomplishments for the four Major Focus Outputs: i) international trade policy negotiation, facilitation and promotion; ii) industry development and investment promotion, generation and facilitation of services; iii) MSME development and promotion services; and iv) consumer welfare and protection services. Through the initiative, DTIs of the above three regions, XI, XII, and IX have obtained ISO 9001 (for quality management) between 2005 and 2009²⁴.

With regard to the promotion of industry clusters, the DTI has started the national program based on the success of the Davao Industry Cluster Capacity Enhancement Project (DICCEP) supported by JICA. In the first workshop of this development study in October 2010, the Under-Secretary of the DTI presented the national Cluster-based Industrial Development Strategies. The DTI established a National Cluster Management Team to promote the strategies nationwide. The DTI emphasized that innovation and upgrading tend to be connected to

²⁴ The major accomplishments related to industry/MSMEs promotion by the DTIs in Region XI and XII are summarized in Appendix Table A-2.

clusters because of the following needs:

- The need for incremental reduction of technical and economic uncertainty;
- The need for repeated and continuous interaction between related firms and specialized institutions including research and education; and
- The need for face-to-face contact in the exchange and creation of new knowledge.

Key attributes of Cluster-based Industrial Development are i) industrial focus, ii) being private sector-led, and iii) value chain analysis for easy integration into the global supply chain. Benefits of the value chain include being i) market-driven by bringing supply and demand together, ii) inclusive of large and small companies, suppliers, and institutions, iii) collaborative in finding solutions to regional issues developed by participants, and iv) strategic in terms that stakeholders create a shared strategic vision which ensures motivation and commitment. The linkage between local clusters to global value chains is explained in Figure 2-15.

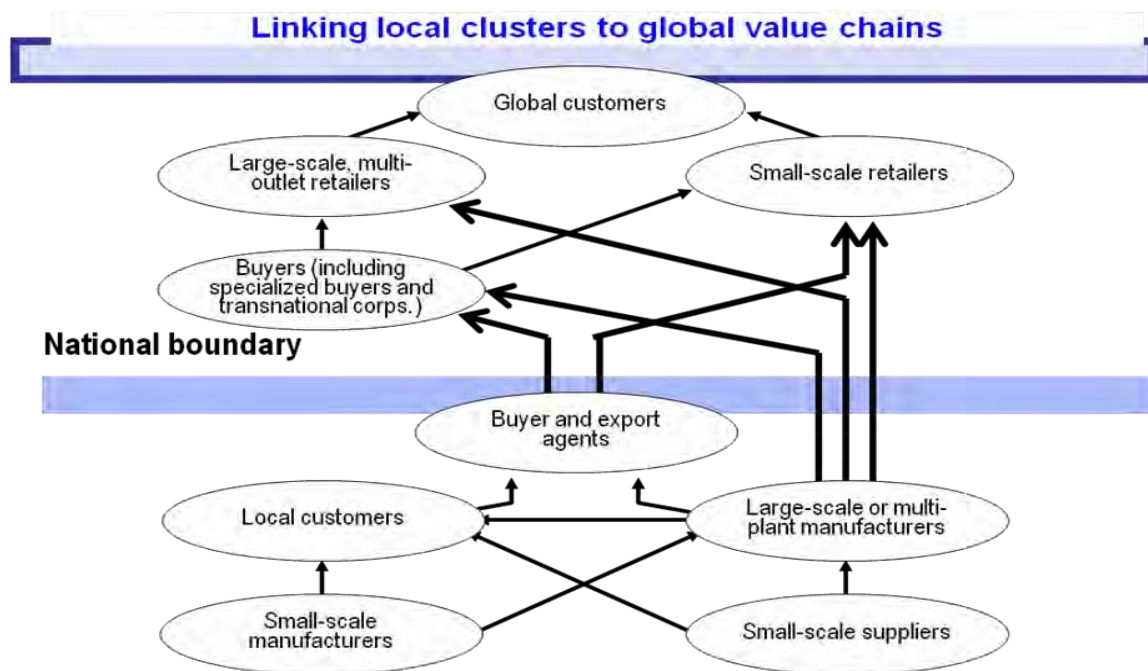


Figure 2-15 Linkage between Local Clusters and Global Value Chains²⁵:

²⁵ Presentation material by DTI at the workshop of LIP-ARMM in October 2010.

Box 2-1: Diagnosis system of MSMEs (Introduction of Japanese SME Shindan System) ²⁶

In an effort to strengthen the BDS support to enterprises, the DTI introduced the Diagnosis system of MSMEs (MSMEs Shindan System) with the assistance of JICA in 2007. The initial training was conducted by the SME Councilors nominated from five provincial offices of DTIs including Misamis Oriental in Mindanao. These trained councilors provided business counseling services to 35 enterprises with the target of doubling their sales in one year. The overall results were very encouraging with 13 enterprises (37%) reaching the target in less than one year. On average, the target enterprises more than tripled (3.5 times) their original sales in a year. Based on these results, the DTI decided to promote the system in all provinces except the ARMM, and provided the initial training to the selected DTI officers from each province with the assistance of Asian Institute of Management (AIM). GIZ also plans to introduce the system to their Small and Medium Enterprise Development for Sustainable Employment Program (SMEDSEP) mainly in Visaya and Mindanao.

(6) One Town One Product

The MTPDP aims to create micro-enterprises and provide them with credit, technology and marketing support as embodied in the SULONG loan program and the OTOP programs. OTOP Philippines is a government program that helps MSMEs manufacture, offer and market distinctive products or services through the use of indigenous raw materials, local skills and talents. OTOP Philippines started in 2004 following the success of the One Village One Product (OVOP) movement pioneered by Oita former Governor in Japan. The program highlights the key concepts of regional pride, the rediscovery of indigenous products, entrepreneurship, and Public-Private Partnerships.

Under the strong initiative of President Arroyo, OTOP strengthens Executive Order No. 176 which stipulates support for the nationwide growth of local MSMEs by stimulating local economic activity and sustaining the anti-poverty thrust of the government. Under OTOP, the local chief executives of every city or municipality take the lead in identifying, developing, and promoting a specific product or service which has, or has the potential to have a competitive advantage. Such products or services form part of the value chain of the provincial or regional cluster. It should be noted that the citation of regional pride in OTOP was initiated

²⁶ Based on the interview with the director of BMSED of the DTI and the project on SME “Shindan” for Philippine SME Councilors – Capacity Development for DTI-SME Counselors. According to the SME Shindan Project, one of the most successful cases was an old local delicacy enterprise which increased monthly sales from Php 160,000 to Php 600,000 (3.75 times) in one year after they changed the color of their packaging label and participated in the trade fair.

by local officials, not by the local people. This differs from the Oita experience where it was the local people's initiative supported by local officials that exuded the elements of ownership. The characteristics of OTOP in the Philippines are envisioned so that regional development will be carried out through the establishment of MSMEs together with technical support, project funds, market support, capacity building and policy support.

Under the Integrated DTI-RODG Work Plan 2008-2010, the following are the eight flagship projects across the country: i) bayon development, ii) pangasius (aquaculture) development, iii) the bamboo industry, iv) hyacinth development, v) subcontracting partners for innovation, vi) veggie noodles, vii) the Saba banana integrated development program, and viii) virtual poultry farming. The total investment of OTOP as of 2010 April is Php 9,882 billion. As of 2010 April, the main outputs of OTOP are as follows: i) 382,899 jobs created, ii) US\$ 563.85 million in exports, iii) Php 13.06 billion in total domestic sales, iv) 8,515 MSMEs developed, v) 5,121 market outlets. OTOP Philippines has been made possible through the strong leadership of the former administration. However, the continuation of the OTOP activities is uncertain with the next administration. The following section describes the implementation status in the ARMM.

(7) Philippine Investment Promotion Plan (PIPP, 2010-2014)

In June 2010, the country's network of Investments Promotion Agencies (IPAs) had completed the medium-term national marketing plan dubbed as the Philippine Investments Promotion Plan (PIPP) to steer the Philippines through the tides of globalization and increase capital inflows into the economy. The IPAs are unfolding the plan as they are committed to laying down the groundwork for sustainable investments and ensuring a favorable business climate in the Philippines. The PIPP is a blueprint for all IPAs which can be used to synchronize strategies in investment promotion. With the goal of facilitating economic development through investment, the new PIPP targets in the eight industries are as follows: i) agro-industrial investments, ii) Business Process Outsourcing, iii) electronics and semiconductor industries, iv) the energy sector, particularly electricity, v) logistics industry for transshipment activities, vi) mining industry, vii) shipbuilding industry, and viii) tourism industry. The PIPP emphasizes improving the general investment climate with an analysis of industrial clusters and value chains and addressing their gaps by targeting companies in foreign countries that can fill these gaps.

(8) Brunei Darussalam Indonesia Malaysia Philippines East ASEAN Growth Area

Under the initiative of President Ramos, the Brunei Darussalam Indonesia Malaysia Philippines East ASEAN Growth Area, or BIMP-EAGA, was launched in 1994 to develop the East ASEAN sub-regions and uplift the condition of people in the areas through the potential

of regional economic cooperation. The strategic objectives are to: i) accelerate economic development, ii) improve export competitiveness, and iii) enhance the attractiveness of EAGA to local and foreign investment. The Philippines is taking a role in SME development²⁷, while the Mindanao Business Council is the national secretariat in the Philippines.

In the first few years following its establishment, BIMP-EAGA cooperation activities developed and made some achievements such as the liberalization of the transport sector, the establishment of uniform port tariffs in selected ports, and the streamlining of travel procedures and documentary requirements. However, activities slowed down as a result of the 1997 Asian financial crisis, changes in the political leadership in Indonesia and the Philippines, and security concerns in some parts. Since the year 2000, the cooperation initiative has been revitalizing to increase trade, investments, and tourism in and outside the EAGA.

In January 2011, the Mindanao Development Authority (MinDA) and regional DTI Offices in Mindanao held the workshop to formulate Mindanao Action Plans for BIMP-EAGA. The plan includes several flagship projects such as coco sugar, fishery processed products, halal poultry, business matching, trade and investment promotion, and SME development. It is planned that several products produced in Mindanao will be packed and obtain halal certificate in Brunei for exports to the Middle East. Although DTI could not attend the workshop, it is expected that the ARMM can utilize the opportunities in collaboration with MinDA.

(9) Mindanao 2020 Peace and Development Framework

The Mindanao 2020 Peace and Development Framework, a 20 year framework from 2011 to 2030 was launched in December 2010. With its vision to improve quality of life through a peaceful and sustainably developed Mindanao, five themes were stipulated which are: i) lasting peace, ii) human development and social cohesion, iii) dynamic, inclusive and green economy, iv) enabling conditions, and v) governance. (Refer to Figure 2-16.)

²⁷ Capital formation, customs, immigration, quarantine and human resource development

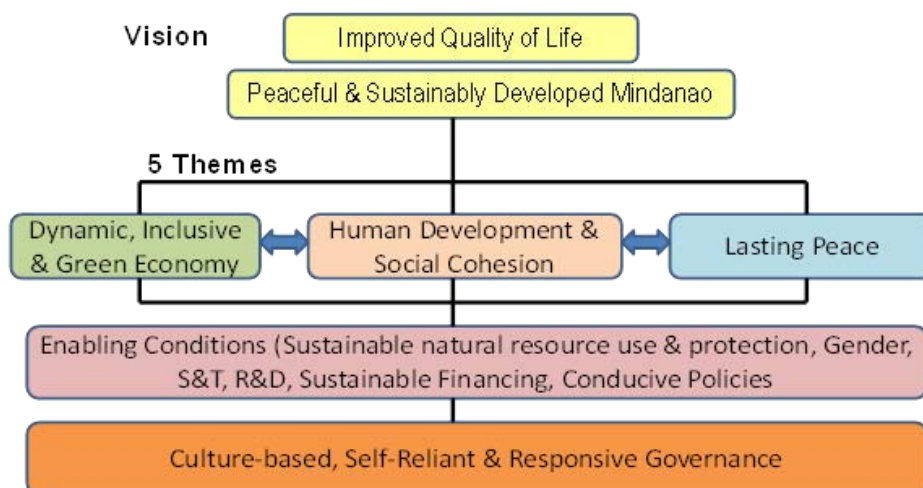


Figure 2-16: Vision and Themes of Mindanao 2020 Peace and Development Framework

Under the theme of economy, seven strategies are identified as follows.

- 1) Focus on potential sectors & industries (Key Strategic Drivers)
 - Archipelago area: **Seaweed & carrageenan, fisheries & marine culture**, etc.
 - Land based area: **Organic farming, processed tropical fruit**, etc.
- 2) Enhanced and more inclusive value chains
 - Promotion of BIMP-EAGA
 - Investment promotion in conflict affected areas through fiscal incentives, financing, fostering entrepreneurial and developmental local leaders such as Toto Paglas
 - **SME food processing such as carrageenan from seaweed and sugar**
- 3) **Enterprise development especially MSMEs (through one stop shop by LGUs, etc.)**
- 4) Inclusive world-class **agriculture/agribusiness** (through solving land disputes, DA-LGU linkage, etc.)
- 5) Vibrant services sector
- 6) Long term industrialization
- 7) Environment for wealth creation (environmentally-friendly production & consumption)

Many of the strategies and key strategic “driver products” such as seaweed, marine culture, organic farming and fruit processing can be applied to ARMM for its local industry promotion.

2-3-3 ARMM Regional Level

(1) ARMM Regional Physical Framework Plan (RFPF, 2000-2030)

As a long-term development plan of the ARMM, the Regional Physical Framework Plan

(RPFPP) aims to serve as a major reference for all socio-economic development planning and decision making in the autonomous region, and the regional centers or the sub-regional areas. The RPFPP was approved by the Regional Economic and Development Planning Board (REDPB) in 2005. The RPFPP is a guiding principle for development planning concerns which seeks to impart an ecological balance in physical resources for the present and future “shape” of the region. It covers the policy direction and agenda for the management of resources to ensure the most favorable development concerns which are implemented in land use such as settlements, infrastructure, agriculture, industry, and most likely the rehabilitation, conservation, and protection of the physical resources in order to attain sustainable development in the next 30 years. The plan is composed of three items: i) protection of land use; ii) a settlement plan; and iii) infrastructure.

(2) ARMM Regional Development Plan (2004-2010)

Along with the Philippine Mid-Term Development Plan (MTPDP), the Regional Development Plan (RDP) in the ARMM was officially published in 2005. The development goals of the Plan included i) strengthened and sustained peace and security, ii) improved economic growth and job creation, iii) enhanced social development with direct poverty reduction, iv) improved and sustained infrastructure facilities and utilities, v) institutionalized good governance, and vi) enhanced international relations.

(3) ARMM Strategic Action Plan 2010-2011

The ARMM Regional Executive Legislative Agenda (ARELA) 2009-2011 was formulated in 2009. However, due to the change of administration, the ARMM Strategic Action Plan for 2010-2011 (ASAP) was formulated by the Regional Planning Development Office with the Office of the Acting Regional Governor. The ASAP covers five major sectors; i) Peace and Security, ii) Economic Development, iii) Social Development, iv) Infrastructure Development, and v) Development Administration and Governance. The ASAP is anchored on the vision, mission, development goals, objectives, and strategies of the ARELA, RDP and the RPFPP of the ARMM.

The ASAP does not include key priority areas, strategies, and targets but addresses “critical development issues” of five major sectors. Under the economic sector, the critical issues are identified as follows: i) low level of investments, ii) environmental degradation and inequitable resource utilization, iii) low level of production and productivity from the agri-fishery sector, iv) inadequate irrigation facilities, and v) inadequate science and technology resources. In response to these issues, priority programs and projects were identified. The total investment requirements were Php 7.6 billion in 2010 and Php 9.9 billion in 2011. In terms of sector-wise

distribution, the infrastructure sector accounts for 54.4% of the total plan, followed by social development (35.9%), economic development (5.7%), development administration (2.1%), and peace, public order and security (1.9%). Of the total requirement, 64.2% in 2011 have not been funded. (Figure 2-17).

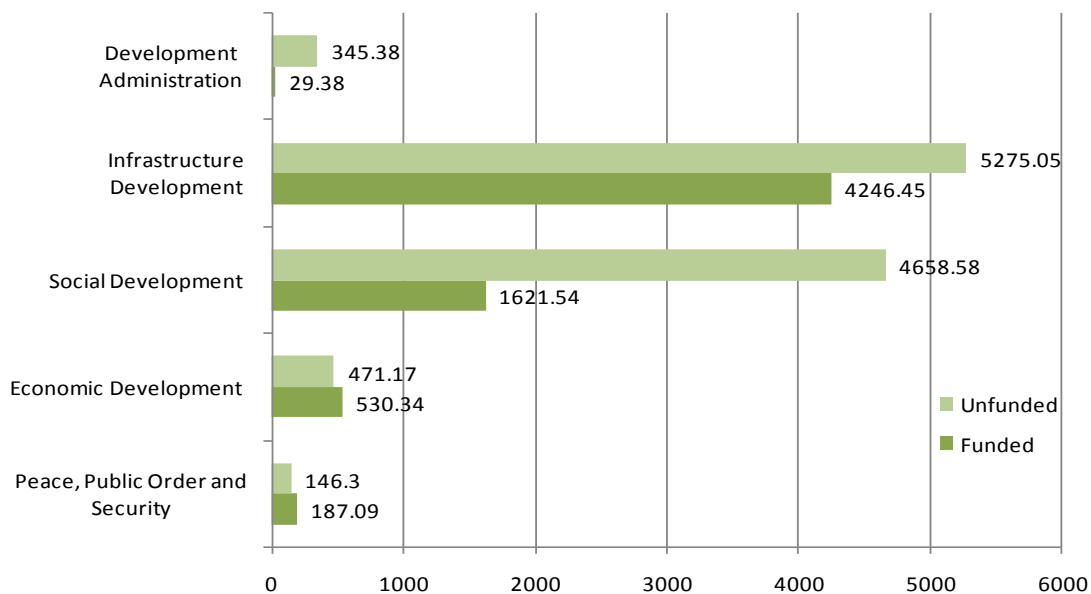


Figure 2-17: Budget Allocation by Sector of the ARMM Strategic Action Plan 2010-2011
 Source: The ARMM Strategic Action Plan 2010-2011 (Unit: Php million)

When looking at the fund allocation by department of the ARG, the DAR is allocated 67% of the total funded projects and programs, most of which for agrarian reform are funded by the Government of the Republic of the Philippines (GRP) and foreign donors. It is followed by the BFAR and the DA in the agriculture and fisheries sectors (12.7%), the DENR (7.8%), and the CDA (6.8%). The DTI has been allocated only Php 2.7 million to implement the halal industry development programs such as advocacy activities, the promotion and marketing of halal products and the enforcement of the Halal Fraud Bill. It should be noted that a large proportion of the planned DTI’s programs and projects are not funded.

(4) ARMM Regional Development Plan (2011-2016)

RPDO issued the new RDP in 2011. Its mission is to promote lasting peace and security, ensure access to quality social services, and sustain economic, political and socio-cultural gains. The plan sets regional macro-economic targets such as annual growth rate of GRDP at 3.5%, manage annual population growth at 3.0%, and reduce poverty incidence to 43% in 2016.

For the economic sector, identified development challenges include i) low investments in the potential industries (halal foods and seaweeds) and weak revenue generation capacity, ii) weak enforcement of environmental laws and policies, iii) vulnerability to climate change, iv) inadequate infrastructure support facilities, and v) inadequate skilled and semi-skilled workers and limited scientific and technological advancement.

To cope with the challenges, strategies for economic development are identified, including:

- 1) Harness the rich resources with emphasis on the region's comparative advantage (rice, corn, halal industry, seaweeds, rubber, banana, coconut and cassava);
- 2) Massive and intensified investment promotion;
- 3) Strengthen economic, trade and investment relation with Muslim countries (BIMP-EAGA);
- 4) Reactivation of institutions and mechanisms for economic, trade, business and investment;
- 5) Strengthen institutional governance through collaboration with the LGU's;
- 6) Accelerating the implementation of comprehensive Agrarian Reform Program (CARP);
- 7) Enhance entrepreneurial skills and institutional mechanisms of MSMEs and cooperatives;
- 8) Rationalize conservation and management of environment and natural resources;
- 9) Institutionalizing the ARMM as the halal industry led region;
- 10) Intensify scientific and technology application, eco-tourisms, and marketing;
- 11) Strengthen cooperative operation and management;
- 12) Strict enforcement of laws and regulation governing economic, agri-fishery and natural resources utilization and exploitation;
- 13) Installation and upgrading of infrastructure support facilities; and
- 14) Strengthen the operation and management of REZA and the Regional Economic Zone.

(5) Special Regional Economic Zone Act of the ARMM

Creating a special economic zone to expand markets, making business more viable, and creating jobs in the region are among the important socio-economic components of the 1996 GRP-MNLF Peace Agreement. With that background, in 2003, the Regional Legislative Assembly (RLA) passed the Special Regional Economic Zone Act (REZA) in the ARMM. The REZA established the legal and regulatory framework for the organization and operation of a special economic zone in the ARMM. Through the use of eco-zones and a deregulated business environment, the ARMM government aims to strengthen local entrepreneurship, encourage

business expansion, and attract new investors.

Due to the lack of funds, the implementation of the special economic zone has been delayed. However, the REZA management committee, composed of an executive secretary, RPDO director, regional treasurer, and the chairman of the ARMM Business Council, was created in 2009 and the committee prioritized the declaration of Polloc port in Parang as a pilot special economic zone in the ARMM and the ARMM government allocated Php 12.5 million for the REZA. In November 2009, the Technical Working Group for operating and managing the REZA was set up. As of April 2010, the Study Tour for Subic Bay (the special economic zone in Luzon) has been conducted, and private consultants conducted a study for promoting site development involving social and economic components. In June 2011, the ARMM government started the construction of the Barter Trade Center designed to beef up the operations of the Polloc Freeport facility. The center building is funded with seven million pesos from the special projects fund of the ARMM government and will contain or accommodate 36 stalls. The construction of the Freeport road networks is also on-going as of August 2011²⁸.

(6) Halal Industry Development Program

Halal industry promotion has been a flagship program of the ARMM government since 2005 when the Halal Industry Development Inter-Agency Technical Working Group was organized. In 2006, the ARMM Halal Industry Development Program Framework was crafted as an economic re-entry plan of the ARMM Regional government and the Muslim Mindanao Halal Certification Board, Incorporated (MMHCBI) was established in 2006.

In 2009, the Regional Halal Food Industry Plan was formulated to serve as one of the road maps to guide in the resolution of problems related to the halal food industry and contribute to the realization of the prospects for growth and development in the halal industry in the ARMM. The details of the above two plans will be explained in the latter section of 2-5 Halal Industry Promotion

(7) Provincial Small and Medium sized Enterprise Development (SMED) Plans

To advocate support and participation in the implementation of the SMED Plan 2004-2010 countrywide, the DTI organized regional harmonization workshops in 2006 in coordination with the Provincial SMED Councils through the DTI regional and provincial offices. In the

²⁸ From the ARMM Website: <http://www.armm.gov.ph> and the interviews with REZA Office.

ARMM, five provinces participated in the workshop to identify priority industries, review on-going program/projects for industry development, and formulate the programs/plans to contribute to the objectives of the SMED Plan. The provincial offices of DTI and SME councils coordinated the processes. Table 2-19 summarizes the priority industries and challenges in the provincial SMED plans. The contents of the plans vary among the provinces, as seen in the table. For example, the plans by Basilan and Tawi-Tawi entail detailed analysis. In summary, the following common challenges raised are:

- Lack of capital and access to loans
- Problems with technology, quality, equipment and facilities
- Lack of access to markets and information
- High production costs including electricity and high transportation costs

In addition to the above, lack of support from municipal LGUs was noted in Lanao del Sur. Problems related to land ownership and the rights, licenses, and the lease of seaweed culture areas were raised in Tawi-Tawi.

Table 2-19: Priority Industries and Challenges Identified in the Provincial SMED Plan

Province	Priority Industries	Challenges
Maguin-danao	Coconuts, Coffee, Mango, Cassava, Goat, Cattle, Poultry, Seaweed, Fish processing, (Information on challenges not available)	
Lanao del Sur	Fisheries/ Marine	A lack of support from municipal LGUs, a lack of capital and networks to support marketing, high production costs, a lack of R&D and technology transfer services
	Corn	A lack of support from municipal LGUs, a lack of capital and access to loans, post-harvest facilities, high transportation costs, insufficient production of appropriate quality seeds/ seedlings, a lack of appropriate technology and needed infrastructure improvements
	Metal/Wood Craft	A lack of support from municipal LGUs, a lack of capital, a lack of funds for marketing, the low quality of raw materials, a lack of standardization of the products, high production costs, a lack of tools and facilities, a lack of modern technology / machines/facilities
Basilan	Fisheries/ Marine	A lack of technology for fish cultivation, a decrease of young fish due to environmental degradation caused by drainage water from rubber plantations, a lack of access to loans for start-ups and for sustaining businesses, limited operations of freezer/post-harvest/semi-processing facilities due to high power costs, inadequate research/development/dissemination services
	Coconuts	A lack of materials for planning, a lack of nurseries for seedlings, a lack of information on access to financial institutions, the low quality of copra
	Rubber	Low quality and productivity due to old and young rubber trees, a lack of modern production and processing facilities leading to limitations on adding value to products, a lack of capital for plantations, a lack of access to long term loans, weak market linkages among rubber production farmers / buyers / processors, a lack of specialized organizations to promote the industry such as research institutes on rubber, high transportation costs
Sulu	Seaweed	A lack of financial support to production and culture, the low quality of dried seaweeds
	Fruit (Durian, etc.)	A lack of finance for long term production, weak access to markets and information, low productivity and seasonality
	Coconuts	Weak cooperatives, a lack of funds such as for coconut plantations, low productivity
Tawi-Tawi	Fisheries/ Seaweed	Lack of the land ownership system, ownership / right/ license / lease of seaweed culture areas, limited production capital, high production cost, access to export market, high business cost such as transportation, low productivity, decreased production, lack of access to good quality seeds, frequent disease, lack of technical assistances
	Cassava	Conflicts on lands, lack of production capital, lack of technology / knowhow on preservation and processing of cassava, lack of information on market, wild hog crop destruction, lack of the varieties which are strong against disease and with high yield, lack of post-harvest facilities
	Trade Hub	Bongao to be a Trade Hub for BIMP-EAGA

Source: DTI-ARMM Provincial Offices

(8) Business and Industry Promotion Activities by DTI

The vision and mission of DTI places emphasis on the following issues.

- Development of agri-industries and the growth of SMEs which will generate employment
- Pursuing an environment where people are motivated, empowered, and fulfilled aiming for excellence and global competitiveness
- Render quality and excellent service to clients, undertake catalytic networking and safeguard the welfare and rights of the public
- Aggressively pursues investment promotion

To pursue the above vision and mission, various activities for industry promotion were undertaken by the DTI. In 2010, the DTI utilized Php 1.5 million (2.7% of total budget of Php 55.8 million) for industry promotion activities. Their major activities in 2010 are summarized in Table 2-20. The data of output of most of the activities and the direct outcome are not available. For example, it is not known how many enterprises received training and services as well as the results such as increased markets and businesses.

Table 2-20: Major Activities of the DTI-ARMM in 2010

Items	Outputs/Outcome
< OTOP Program >	
Assistance & trainings on product development, packaging & labeling	N/A
Facilitation for testing for rubber	N/A
Provide trainings on coffee	N/A
Investment programming for OTOP of Parang	N/A
< Trade Fairs/Forum >	
OTOP Mindanao Island Fair 2010	Approximate total sales: Php 1,470,000
ARMM Ramadan Fair	
Provincial Trade Fair in Tawi-Tawi	
Assistance to Ramadan Fair in Parang	
Fruit Forum in Maguindanao	N/A
<Skills and Entrepreneurial Training >	
Entrepreneurial skills trainings for Sultan Kudarat Islamic Academy students	119 participants
Basic entrepreneurial training for social fund project	400 participants
Trainings for enterprise development & skills, business proposal making, packaging,	N/A
< Facilitation for Programs with Donors and Other Stakeholders >	
Meetings with donors & various stakeholders	N/A

Source: DTI-ARMM Accomplishment Report 2010

The bottom-up achievements which are mainly deprived from the business names registered at DTI in 2009 and 2010 are reported in Table 2-21. As observed a downward trend of the performances. In addition, the contribution of the activities by the DTI to these accomplishments is not clear.

Table 2-21: Bottom-up Accomplishments by DTI-ARMM, 2009 and 2010

Type/Indicator	2009	2010
Investment Generated	Php 342 mil.	Php 307 mil
Employment Generated	9,041	3,652
Business Names Registered	1,055	685
Export Earnings	USD 15.1 mil.	USD 23 mil

Source: ARMM Performance Report 2009 and 2010

Note: Data excludes Oct.-Nov. 2009 accomplishments in the provinces of Maguindanao and Lanao del Sur.

As above, various activities were undertaken by the DTI. It was encouraging to observe that the DTI assisted the Maranao Chamber of Commerce in Maguindanao to hold a Fruit Forum inviting a fruit exporter from Manila. Many farmers participated in this forum and there were active discussions with the exporter and relevant organizations. There also observed a concentration of activities in Maguindanao (particularly in Parang and Sultan Kudarat) and Tawi-Tawi in 2010 and no specific activities were reported for Lanao del Sur. It is necessary for DTI to establish a system to make more concrete plans with targets to cater for MSMEs in all the provinces and monitor the performances of provincial offices, in addition to secure the necessary budget.

2-3-4 Institutions Related to Local Industry Promotion in the ARMM

(1) Overview

Stakeholders related to local industry promotion in the ARMM include the ARMM government, provincial and municipal LGUs, and the private sector (Figure 2-18).

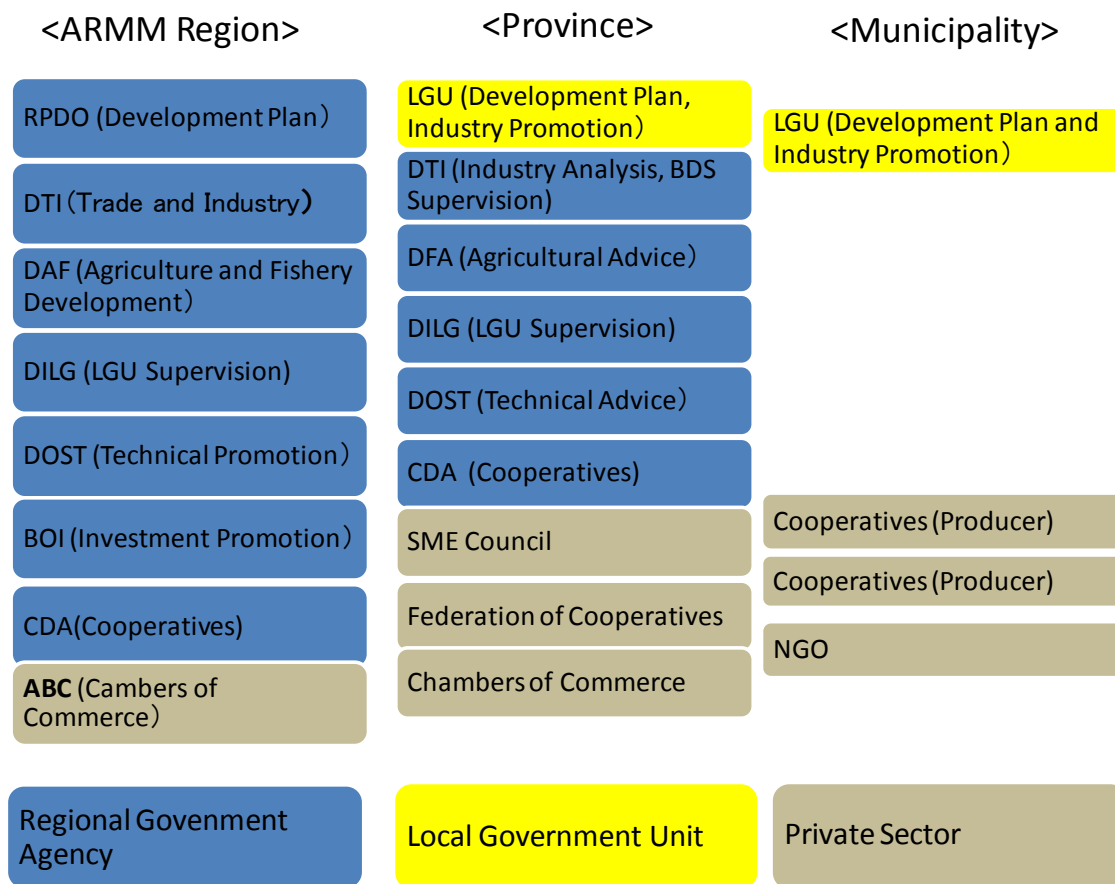


Figure 2-18: Relevant Organizations for Industry Promotion in the ARMM

The ARMM government organizations relevant to the promotion of industry are the following: i) Department of Trade and Industry (DTI); ii) Department of Agriculture and Fishery (DAF); iii) Department of Science and Technology (DOST); iv) Department of Interior and Local Government (DILG); v) Regional Board of Investment (RBOI); and iv) Cooperative Development Agency (CDA).

The DTI is in charge of promotion, regulation and coordination of trade and industry. The DAF is responsible for the development of agriculture, forestry and fisheries. The DOST is assigned to lead processing technology. The DILG supervises the LGUs in the ARMM and supports the preparation and evaluation of their development plans. The RBOI is responsible for the promotion, assessment and acknowledgement of foreign investments in the ARMM. The CDA is administratively defined to execute registration, supervision, training and the direction of cooperatives in the ARMM. The DTI, DAF, DOST, DILG and CDA have provincial offices and support the preparation of the development plans of the LGUs. They also provide the LGUs with guidance and directions on development programs in agriculture, forestry, fisheries, and

cooperatives.

In the private sector, each province has a Chamber of Commerce. There are also many NGOs which support the enhancement of income among the local inhabitants. For example, the University of Southern Mindanao (USM) provides research and development, and technical guidance to the inhabitants in the agriculture and fisheries sectors. Cooperation and partnership activities are necessary among the provincial offices of the ARMM, LGUs, universities and other private organizations.

(2) Related ARMM Regional Government Entities

1) Department of Trade and Industry (DTI)

The DTI is the leading institution for this survey on the ARMM government side. There are four divisions, five provincial offices and the number of staff members is 123 in the department. The first division is the business/trade development division, which supports the business activities of MSMEs. The second division is the industrial development and investment promotion division, which prepares and coordinates industrial plans. The third division is the consumer welfare division, which regularly monitors the price of basic and prime commodities. The fourth is the finance and administrative management division.

As a devolved agency, the DTI has to finance its operations and programs in accordance with the approved annual budget of the ARG from the General Appropriations Act. In the last five years, the allocation for the agency has been heavily allotted to personnel services, which accounted for 64% of the total budget from 2006-2010. The allocation for operations and maintenance accounts for only 35%, or about Php 117 million for the whole period, which gives the agency meager funds with which to support its operations and provide technical assistance services to its clients, including the LGUs (Figure 2-19).

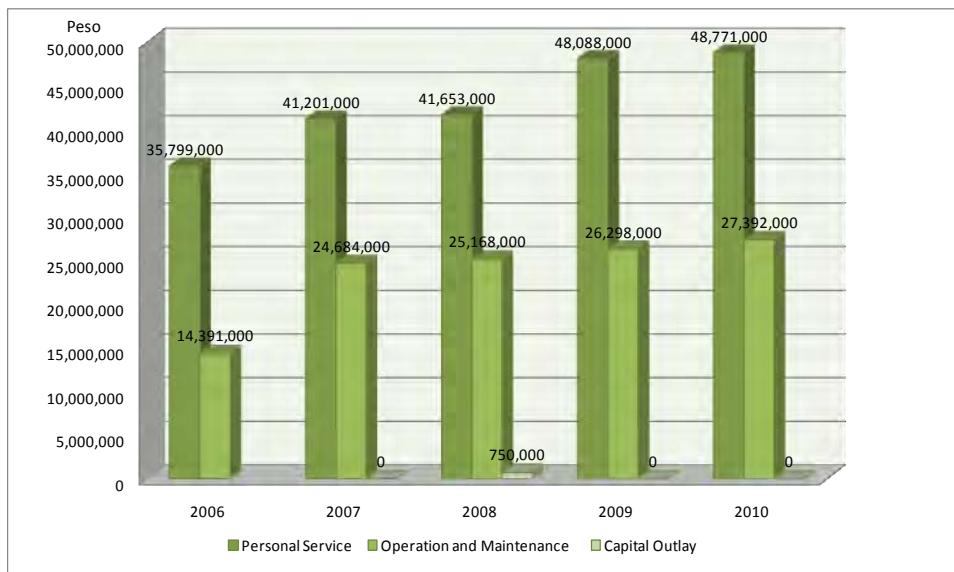


Figure 2-19: DTI-ARMM Annual Budget

Source: DTI-ARMM

The DTI emphasizes the need for capacity development in the following two areas. The first is the consulting abilities for economic and industrial surveys, and then for “business development services (BDS).” The second is the strengthening of know-how in the marketing of products from the region and the promotion of investments. Regarding the capacity development of industrial analyses, some DTI officers from the Regional and Provincial offices in Maguindanao participated in designing questionnaires and in part of field trips during this study.

According to the Accomplish Report of 2010, the major activities related to local industry promotion were focused on BDS. The details of these activities are described in 2-4-3. In addition, DTI continue business regulation, information dissemination through regular radio program, and legislation of Muslim Mindanao Autonomy Act 254, which is widely known as halal labeling act of 2009. JICA and the DTI have jointly implemented the ARMM Human Capacity Development Project (AHCDP) since 2008. Under AHCDP, the DTI is a leading agency of the economic development Technical Working Group (TWG), and the TWG has been working for technology transfer to the farmers not only on goat production technology but also its business management know-how and knowledge on halal certification. DTI regards such approach in the AHCDP as one of the practical ways for promotion of halal industry.

2) Department of Agriculture and Fishery (DAF) and Bureau of Fisheries and Aquatic Resources (BFAR)

The primary administrative mandate of the DAF is agricultural development. The DAF has five provincial offices, and has 767 officers in total. The headquarter of the DAF has three departments. The first is the field operations division, which provides guidance and other technical services concerning the production and sales of crops and livestock. The second is the research and development division. The third is the finance and administrative management division which faces many challenges in the pursuit of its administrative responsibilities. The challenges are as follows: a need for capacity development for advanced agricultural related technology and know-how; a reduction of its current overstaffing; and a rational and efficient distribution of authority and labor between the regional office and the provincial offices.

There are two affiliated institutions: ARMM Integrated Agricultural Research Center (ARMMIARC) which is specialized in agricultural research and development; and Agricultural Training Institute (ATI) which focuses on agricultural extensions and training. ARMMIARC has 46 employees. Out of 46, 29 employees hold permanent status while 17 are on contract basis. The personnel under technical division are 7 technical staffs 15 permanent farm workers, and 17 contract workers. The fundamental issues to be tackled in ARMMIARC are insufficient budget for activities, inconvenient location for ARMMIARC center, and irregular dissemination of research results. ATI, which is technically under the management of Department of Agriculture in the national level, holds the special mandate for an agricultural extension. Nevertheless, ATI is not properly functioning as a center of agricultural extension due to insufficient staffs assigned. Instead, DAF officers in its provincial offices and in municipal LGU offices in ARMM play major roles for the extension service. The department also recognizes its need for organizational capacity development in both of these institutions. In addition to the above mentioned, there is the Bureau of Fisheries and Aquatic Resources (BFAR) whose mandate is fishery administration.

The DAF plays an important role in agricultural extensions to farmers. For instance, the DAF has a farmer's field school. Although this program focuses on a variety of agricultural products such as rice, corn, and coconuts, the program focuses on rice production. One period of the program is four months, and the school conducts one session per week. Participants are composed of resident representative farmers from all the covering barangays. This program covers many topics including the handling of seedlings, the proper applications of fertilizers and pesticides, and the appropriate preservation of post-harvesting products, through the comparison of pilot farms with practical applications which can be applied to the farmers own lands. In addition, provincial offices offer various training programs to disseminate agriculture skills to

farmers. Nevertheless, these extension programs are often disturbed by budget deficits.

The BFAR is responsible for fisheries and aqua farming. In particular, the BFAR attempts to facilitate various extension programs to fishermen although the BFAR often faces budget deficits. The BFAR has the following facilities to demonstrate and disseminate technologies relating to aqua resource farming. The BFAR has a model fish pond to disseminate farming skills and information concerning milkfish and mud crabs in Parang of Maguindanao. The BFAR also has a pond for tilapia and carp to demonstrate farming skills. In addition, a hatchery facility is also located in Tawi-Tawi. According to the Study, many of these programs have operational as well as management problems. For instance, BFAR is supposed to receive training programs for skill-up in Regional Fishery Research and Training Center in Davao and Zamboanga. Although these training centers are located outside the jurisdictions of the ARMM, these centers have mandates to provide training programs to BFAR officers. Nevertheless, these officers hardly utilize these centers for their trainings.

3) Regional Board of Investment (RBOI)

Republic Act No. 6734, known as the Organic Act of the ARMM, provides the ARMM Government the authority to regulate and exercise issues over foreign investments. Using this as the legal basis, the national government devolved the powers and functions of the national Board of Investments (BOI) about investments to the ARMM. The RBOI was created to: i) review applications for registration, ii) supervise enterprises registered within the ARMM, iii) cancel certificates of registration, iv) evaluate incentives to be availed by enterprises, and v) assume promotion of investments. Incentives given to investors in the ARMM consist of income tax holidays, tax and duty exemptions on imported equipment, exemption from real property tax on machinery and equipment, and exemption from national and local taxes.

The RBOI annually formulates the Investment Priorities Plan, which seeks to grant incentives to targeted investments that could take advantage of the expected global and domestic economic rebound. This plan includes the ARMM priorities list²⁹ identified by the RBOI. Despite promotion activities conducted by the RBOI, the size of the investment in the ARMM areas is limited due to security concerns, and cultural differences in business usage. It should be noted that, among the ASEAN countries, only the Philippines has decreased Foreign Direct Investment (FDI) over the last five years. This is mainly the result of: i) weak governance in an unstable

²⁹ Priority activities in the ARMM involve a wide range of sectors. The sectors include i) agriculture, agribusiness, aquaculture and fisheries and consumer manufacturing; ii) basic industries (production of pharmaceuticals, mining); iii) consumer manufacturing (processing of rubber products); iv) infrastructure and services; v) industrial service facilities (testing and quality control laboratories, training and demonstration centers); vi) engineering industries; vii) energy; viii) BIMP-EAGA trade and investment enterprises; ix) tourism; x) health, education services, and facilities; and (xi) the halal industry. (RBOI (2010) Investment Priorities Plan)

political condition, and issues on conflict and security, ii) obstacles to participation by foreign investors, such as the ban on land ownership, and iii) inconsistent rules and regulations between the national BOI and other region-specific investment boards such as the RBOI.

4) Regional Planning and Development Office (RPDO)

The RPDO was created under the Muslim Mindanao Autonomy Act No. 4 enacted by the Regional Assembly pursuant to Republic Act No. 6734. The RPDO is mandated to serve as the planning and coordinating agency of the ARMM regional government and to act as technical secretariat of the Regional Economic and Development Planning Board (REDPB). The main functions are to: i) coordinate the formulation of development plans and policies, ii) monitor and evaluate project implementations, iii) provide technical assistance to LGUs and other ARMM agencies, iv) coordinate with other donors, and monitor and evaluate the status of ODA assisted projects, and v) work closely with the central government. The RPDO is composed of five operational divisions and one center which function in the following capacities: i) finance and administrative support, ii) economic development, iii) social development, iv) infrastructure development, v) macro-intersectoral coordination assistance, and vi) the project development evaluation center.

5) Department of Interior and Local Government (DILG)

The DILG is mandated to: i) assist the Regional Governor in the exercise of its general supervision over LGUs; ii) promote peace and order; and iii) develop and strengthen local government capability at both the municipality and the barangay levels towards the effective delivery of basic services to inhabitants. Under the DILG jurisdiction, there are 5 provinces, 1 city (Marawi), 117 municipalities and 2,477 barangays as of April 2010. There are over 300 officials including the regional and provincial offices. The DILG is composed of four divisions covering: i) local government development, ii) local government operations, iii) finance and management, and iv) administration.

With the CIDA assisted project (LGSPA), the local governance performance management system (LGPMS) was developed as a strategic tool for building the foundation of good governance and increasing the level of public consciousness in local governance. The LGPMS allows the DILG and the ARG to map out the underlying capacities of the ARMM LGUs across the different performance areas. This will serve as the basis for development planning, capacity development assistance, technical support, program development, networking, and linkage. The LGPMS conceptual framework comprises five performance theme areas (governance, environmental management, economic, social, and environmental), 17 service areas, and 111 indicators. The DILG plans to allocate grants based on performance by utilizing this evaluation

system.

6) Department of Science and Technology (DOST)

The mandates of the DOST are to: i) formulate plans for science and technology programs, ii) conduct research and training, and iii) develop technological innovation systems. As of April 2010, the total number of officials is 35, with 10 located in provincial offices (two each). It is composed of two divisions: Administrative and Finance; and Technical Management Services. The Technical Management Service Division consists of three sections: i) research and development, ii) science and technology services, and iii) information technology. The program related to local industry is the Small Enterprise Technology Upgrading Program that aims to provide technical assistance to SMEs through training, equipment provision and technology innovation support in order to standardize and improve production processes. Using the Regional Standards and Testing Laboratory Services Development, the DOST is supposed to provide a wide range of microbial and chemical testing and analysis services as required by SMEs in food processing and material production along with the Regional Halal Food Industry Plan. To promote the Plan, the laboratory center, funded by the ARMM Social Fund was inaugurated in April 2010. However, no financial and human resources have been allocated due to the lack of funds.

One of the major functions of the DOST in terms of local industry promotion is the research and development on food processing technologies. The DOST continues to play a leading role in the extension program on food processing technologies. These programs are often affiliated with relevant government agencies, such as the DAF and the DTI. In addition, the DOST supports the National Commission of Muslim Filipinos (NCMF), in terms of developing halal technologies. The participation of the DOST in the NCMF is aimed at promoting halal industries in the ARMM.

7) Cooperative Development Authority (CDA)

The mandate of CDA is to promote the viability and growth of cooperatives as instruments of equity, social justice, and economic development in fulfillment of the mandate in section 15, Article XII of the Constitution. The CDA has nine district offices: two in Sulu, one in Tawi-Tawi, one in Basilan; two in Lanao del Sur, one in Marawi City, and two in Maguindanao. The total number of the officials is 45. The main roles and responsibilities are to: i) register and supervise cooperatives, and ii) provide technical assistance for institutional development such as providing pre-membership seminars, leadership management training, and basic training courses, and iii) regulate cooperatives. The CDA officials normally collaborate with the LGU officials in charge of the cooperatives at the municipality level.

The CDA plays a leading role in providing various training programs for the cooperatives. These training programs cover cooperative formation, business management, and accounting. According to interviews with officers in the CDA, programs for cooperative formation constitute the vast majority of all the training programs. Those who are interested in forming cooperatives are required to participate in this program, and thus the demand for this program is far higher than the other programs. On the contrary, the CDA conducted only a few of other training programs in the year of 2009-10 due to low demands from operating cooperatives.

(3) Local Government Units (LGU)

Provinces, municipalities and barangays are considered administrative institutions under the ARMM. Due to political and other reasons, the number of municipalities in the ARMM is larger than the national average in comparison with the population. Some industry analysis is already carried out at the provincial level, but the target of finding and promoting local industries with good potential will be at the municipality level. Nevertheless, the degree of initiatives conducted by each municipality is varied because of the lack of commitment by leaders and officials, the political and security situations, and so on.

(4) Private Sector and Non-Governmental Organizations

1) Bangsamoro Development Agency (BDA)

The BDA was established by the MILF by following the “humanitarian support, reconstruction and development guideline” of the Tripoli Agreement, which was agreed on between the National government and the MILF in June 22, 2001. The function of the BDA was defined as being the coordination agency responsible for executing humanitarian support for development and reconstruction in the conflict affected areas. It is an informal organization brought about as a result of the peace agreement. The budget for the operation, management, and personnel of the BDA is covered by the Office of the Presidential Adviser on the Peace Process (OPAPP), the Mindanao Trust Fund and others. The development undertakings are managed through the support of each major donor country. The priority agenda in 2008 included the preparation of a comprehensive Bangsamoro development plan and the utilization of “underground” resources.

2) Cooperatives

A cooperative is an autonomous and duly registered association of persons, with a common bond of interest, who have voluntarily joined together to achieve their social, economic, cultural and aspirational needs. A cooperative aims to achieve these goals by making equitable contributions to the capital required, patronizing their products and services, and accepting a fair share of risks and benefits of the undertaking. The primary objective of every cooperative is to

help improve the quality of life of its members³⁰. The types of cooperatives include credit, consumer, producer, marketing, multi-purpose, agrarian reform, and fisherman. The basic principles of the cooperative are: i) voluntary membership, ii) democratic member control, iii) economic participation, iv) autonomy and independence, v) education, training and information, vi) cooperation among cooperatives, and vii) concern for community.

3) Civil Society Organizations (CSOs)

The present armed struggle between the Christian central government and Muslim residents in Mindanao has been more or less continuing up to year 2011 since late 1960s. During these years, several NGOs and other civil society organizations (CSO) have been providing basic human needs related goods and services to the victims of those conflicts who were forced to become internally displaced in these conflict affected areas. Financial and other necessities which have been regarded as necessary for these activities of NGOs and other CSOs have been provided by international public and private donors. It has been also known that most of these NGOs and other CSOs were politically and/or religiously motivated organizations.

Thus the operations of these CSOs in the ARMM became very active after the signing of the Peace Agreement in 1996. After the agreement, as the situation became safer and more stable than before, the demand for service providers for the people in the conflict affected became evident. At the same time, there was a trend that more numbers of international donors brought more financial and other resources for reconstruction of Bangsamoro communities, but administrative absorption capacity among Bangsamoro LGU and the ARMM government had been very low.

The CSOs are expected to play a critical role in the social, developmental and political transformation of communities. With the on-the-ground experiences and practical knowledge of the needs of the communities, CSOs can strengthen the enabling environment for a better socio-economic development framework. However, the performance and achievement of CSO in the ARMM may be fragile and limited at present. They have been facing numerous difficulties in pursuing their original objective. These challenges include external factors such as i) unstable security situation, ii) low education level of the work force, iii) mismatch between occupational needs due to lack/shortage of quality occupation training opportunities, iv) lack of

³⁰ Towards these end, the cooperative aims to: i) provide goods and services to its members to enable them to attain increased income, savings, investments, productivity, and purchasing power. In addition, they aim to promote among themselves an equitable distribution of the net surplus through maximum utilization of economies of scale, cost-sharing and risk-sharing. Specifically, they aim to ii) provide optimum social and economic benefits to its members; iii) teach them efficient ways of doing things in a cooperative manner; iv) propagate cooperative practices and new ideas in business and management; v) allow the lower income and less privileged groups to increase their ownership in the wealth of the nation; and iv) cooperate with the government, other cooperatives, and people-oriented organizations to further the attainment of the foregoing objectives.

or poor content/scale of support from public authorities for technical and financial services, v) limited professional capacity of public officials, vi) insufficient physical infrastructure, and vii) lack of sustainable commitment from the political leadership and government policies. They also have internal challenges which are; i) vision and mission of the organization became vague which led to a lack of discipline and motivation among members, ii) fragile financial base and/or difficulty in obtaining sustainable financial resources, and iii) lack of management skills and expertise. One of the most urgent training needs is hands-on management skills and expertise in managing CSO.

2-4 Technical and Financial Institutions

The Study team found many network institutions, technical service providers, and financial institutions in the ARMM as well as neighbouring regions. This section introduces some of major representatives in each category in order for readers to grasp images of these institutions.

2-4-1 Network

(1) ARMM Business Council and Chambers of Commerce

The ARMM Business Council (ABC) is the networking group for the chambers of commerce in the ARMM. As of November 2009, the ABC contains ten chambers of commerce. The study revealed that these chambers have following common institutional problems: a lack of funds, small membership numbers, and an insufficient variety of services which are provided to their members. Most of business entities in the ARMM have a relatively small percentage of participation in any chambers or related associations.³¹ Therefore, it is difficult to state that the chambers of commerce in the ARMM have sufficient capacities to promote business activities. However, there was a positive movement. The Eranon Chamber of Commerce took the initiative to conduct a fruit forum in November 2010 in Cotabato. In the forum, fruit producers under the chamber obtained opportunities to introduce their fruits to an invited fruit traders from Manila in addition to having information exchanges between producers and venders.

(2) Small and Medium Enterprise Development Council

The Small and Medium Enterprise Development (SMED) Council has been established through Republic Act 6977. The SMED Council which consists of both public and private sectors aims to enhance and develop SMEs at the local and regional levels. The Council plays a role in

³¹ Rate of business entities, which participated in chambers of commerce or other related business associations as of August to December 2010: Maguindanao 13%, Lanao 10%, Basilan 8%, Sulu 18%, and Tawi-Tawi 2%.

urging its members to participate in the business supporting programs of the government. Moreover, the council functions to recommend improvements in the local business environment, for instance, by simplifying the registration procedures of business at the local level. However, it was found that the SMED Councils in the ARMM are not as active as the ones in other parts of the Philippines. For instance, the SMED Council in Lanao stopped functioning in 2010 due to insufficient funds.

2-4-2 Technical Service Providers

(1) University of Southern Mindanao

The University of Southern Mindanao (USM), one of the leading universities in the Philippines, has an agricultural department with good facilities. USM has 5,129.97 hectares in the three campuses which are located in Kabacan (Main campus), Arakan Valley, and Kidapawan City.³² A majority of the land is used for agricultural research based projects. A potential technical service provider, USM has the following facilities: the Philippine Industrial Crops Research Center, the USM Agriculture Research Center, and the Philippine Rubber Testing Center.³³ By utilizing its resources, USM sanctioned the following research projects in 2010; Palm Oil and Its Derivatives as Fuel for Internal Combustion engines; The Effects of Climate Change on the Productive Performance and Health Conditions of Small-scale Goat Production; Yield Stability of USM Quality Protein Maize Varieties; and Sensory Evaluation and Storage Stability of Lanzones.

(2) Kadtuntaya Foundation Inc.

Kadtuntaya Foundation Inc. (KFI) is a non-profit organization whose objective originally was to reunify those who have different economic and social backgrounds, tribal groups, and religions in Mindanao. Nowadays, in order to pursue these aims, KFI conducts a variety of activities for community development. Throughout these activities, KFI has accumulated experiences as a potential service provider. KFI teaches organic farming and instructs on the creation of pesticides by naturally available resources. KFI also promotes integrated pest management under the scheme called the Field Farmer School (FFS). The FFS contributes not only to the extension of agricultural technologies, but also agro-ecology, experimental education, and community development.

³² University of Southern Mindanao, URL:
http://www.usm.edu.ph/index.PHP?option=com_content&view=article&id=83&Itemid=84

³³ University of Southern Mindanao, URL:
http://www.usm.edu.ph/index.PHP?option=com_content&view=article&id=260&Itemid=413

(3) ARMM Integrated Agricultural Research Center (ARMMIARC)

The ARMM Integrated Agricultural Research Center (ARMMIARC) under DAF is the research and development center for agriculture and livestock. ARMMIARC has received financial assistance from the Government of Japan, such as the three conservatories supported under the scheme of the Grassroots Human Security Grant Project.³⁴ These conservatories mainly function as nurseries. The main training center building which provides lodging facilities was also supported by JICA through the ARMM Social Development Fund. In addition to these facilities, ARMMIARC has a goat cage and carabao (water buffalo) shed. ARMMIARC has 56 staff members in total including 14 technical, 17 non-technical, and 25 on a contractual basis. ARMMIARC has a great potential to provide technical services because of its facilities and researchers who conduct various training programs related to agriculture and livestock.

2-4-3 Financial Institution

Financial institutions in the Philippines consist of government banks, commercial banks, thrift banks, rural banks, cooperative banks, NGOs, and Savings and Credit Cooperatives (SACCOs). Multi-purpose cooperatives also provide financial services to their members. Microfinance Institutions (MFIs) who provide financial services to micro-enterprises and the poor are about 500 NGOs, 4 thrift banks, 191 rural banks, and 4579 SACCOs. Among them is one of the leading MFI in the world, the Center for Agriculture and Rural Development (CARD) Bank which started as a NGO in 1989 and was transformed to a commercial bank in 1997. However there are many institutions with small outreach and the MFIs which attained financial sustainability are limited. Overall outreach is also limited to one third of poor households and over 660 municipalities, 40% of the total, do not have banking offices³⁵. On the other hand, there are many pawnshops and money lenders including informal ones.

There are several government financial institutions providing loan funds to MFIs and cooperatives, which are PCFC (People's Credit and Finance Corporation), NLDC (National Livelihood Development Corporation), the Land Bank of the Philippines (LBP), and Small Business Corporation (SBC).

As to trainings, several training institutions provide capacity building support for MFIs. Among those known to offer training programs for MFIs are Punla sa Tao Foundation, Catholic Relief Services (CRS), Social Enterprise Development Partnerships, Inc. (SEDPI) and Microfinance

³⁴ ARMMIARC Profile (Brochure of ARMMIARC)

³⁵ Financial Sector Assessment Philippines, UNCDF, 2008, Asia Microfinance Analysis and Benchmarking Report 2008, MIX Market

Innovation Center for Resource and Alternatives (MICRA). There are also MFI NGOs that offer training programs for other MFIs. These are CARD-MRI Development Institute (CMDI), Negros Women for Tomorrow Foundation, Inc. (NWTFI), and Taytay sa Kauswagan, Inc. (TSKI).

In the ARMM, there are 13 MFIs and two rural banks operating with the estimated clients of around 22,000 which are 4% of total population. Their coverage is also limited to 34 municipal LGUs (29% of all the municipal LGUs) in the ARMM. There are 97 cooperatives which provide loans to their members but their performances are unknown. In total, 70 municipal LGUs (59%) do not receive the services offered by MFIs and financial cooperatives in the ARMM

2-5 Halal Industry Promotion

2-5-1 Overview of Halal Industry

(1) Definition of Halal

“Halal” is an Islamic Holy Qur’anic term meaning “permitted, allowed or lawful.” “Halal” when used in relation to food and other consumer goods, means “permissible for consumption and used by Muslims.” “Haram” is the opposite of “halal.” In Islamic Law, the following foods and their derivatives are defined as unlawful, which mean “haram.” and below are the major examples of “haram” with explanations.

1) Dead inland animals

Animals or birds that have died of natural causes without being slaughtered or hunted by men are defined as haram. The purpose of slaughtering in Islam is to let the blood out and use the flesh of the animal as food and remove the slaughtered animal from the “dead animal.”

2) Prohibition on flowing blood

The reason for this prohibition is both that the drinking of blood is repugnant to Muslims and that it may in some cases be injurious to health.

3) Pork

4) Animal slaughtered dedicated to anyone other than Allah

Also considered “haram” are animals for food which have been “sacrificed to idols” and any animals which are not slaughtered in accordance with Islamic Law.

5) All land and aquatic animals and plants are lawful except the following:

i) boars, dogs, monkeys, foxes, donkeys, cats, tigers, lions, and elephants, ii) snakes and

some reptiles, iii) carnivorous animals with claws and fangs such as lions, bears, and other similar animals, iv) birds of prey with claws such as eagles, vultures, and other similar birds, v) pests such as rats, centipedes, scorpions, and other similar animals; vi) animals that live both on land and in water, vii) all poisonous and hazardous aquatic animals, viii) intoxicating and hazardous plants, alcoholic drinks, ix) all forms of intoxicants and hazardous drinks, x) all forms of prohibited drugs like shabu, marijuana, opium, ecstasy, and other similar drugs, and xi) food additives derived from unlawful sources.

At present, the term “halal” is commonly associated with food and drinks but it is also being applied to non-food items such as perfumes, toiletries, pharmaceuticals, and other personal care products. In the service sector, halal has been applied to banking, project finance, and even personal finance. It is important to clarify that production, transportation, sales and consumption of any food and other related goods and services can be subject of the halal industry.

(2) Potential World and Domestic Market for Halal Foods and Goods

In the estimated world population of 6.5 billion, according to the latest research from 2011 World Halal Forum, there are an estimated about 25% or 1.6 billion Muslim population worldwide and the present value of the global halal food market, is estimated to be about US\$ 661 billion. The breakdown by region is as shown in Table 2-23.

Table 2-23: Global Halal Food Market Size by Region (US\$)

Region/Year	2009 (billion)	2010 (billion)	Change (%)
Africa	150.6	155.9	3.5
Asia	400	418.1	4.5
Europe	66.6	69.3	4.1
Australia/Oceania	1.2	1.6	33.3
Americas	16.1	16.7	3.6
Total Halal Food Market Size	634.5	661.6	4.3

Source: World Halal Forum 2009 Post Event Report and World Halal Forum 2011 Presentation

Over the recent years, the demand for halal-certified products has increased dramatically. There are several reasons for the explosive increase in demand. The first has been the increase of Muslim populations in not only traditional Islamic countries but also all over the world. The second has been the rise of per capita income, particularly among the Middle East Muslim countries exporting oil. The third has been the trend towards fundamentalism and awareness of

Muslim laws, which emphasizes a more strict compliance with the original teachings of the Islam. The fourth has been the spread of world recognition that genuine halal foods are safe and healthy. Finally, the rapid and widening recognition of the business world, that there must be tremendous business opportunities in connection with halal foods and other related goods.

The Philippines has a Muslim population of 4 to 5 million, 80% of them live in the ARMM. At present, nearly 300 halal products can be found in Philippine supermarkets, resorts, and hotels. Some of these products are made by the 55 domestic companies based in Davao, General Santos City, and Metro Manila. Others are imported from Thailand, Malaysia, Singapore, Australia, New Zealand, and the USA. As the demand and concern for genuine halal foods and other products grows rapidly even in the Philippines, it is becoming evident that the volume, kinds and quality of halal products from the supply side has been quite insufficient. It is currently an urgent need for the Philippines halal producers and suppliers to meet the domestic demand, before expanding to exports in the world market. This is a step for the stable development of halal industry in the region.

(3) The Halal Industry in Asia and the Philippines (ARMM)

According to the latest research from 2011 World Halal Forum, there are an estimated 1,105 million Muslim population in Asia. (Indonesia: 205 million; India: 177 million; Pakistan and Bangladesh: 327 million; China: 23 million; Malaysia, 17 million; and Thailand, 4 million; other countries: 352 million). For 2010, estimated size of Asia's halal food market is at US\$ 418 billion or 63 percent of the global halal market.

To meet the growing demand for genuine halal products, companies all over the world and Asia are seeking authentic halal certification to gain consumer confidence, expand their existing markets, and enhance sales strategies. Thailand has set up a Halal Science Center at Chulalongkorn University, and plans to establish new industrial estates for the production of halal food in the province of Pattani. Thailand has already succeeded in the promotion and exporting of halal food products. Malaysia aims to promote itself as the global halal hub. The JAKIM (Jabatan Kemajuan Islam Malaysia: Malaysian government department specialized in halal certification) has been the most active in halal certification activities and the promotion of halal goods to the world. Brunei has also established one of the most reliable halal certification systems. Furthermore, Australia has also been very eager to establish halal certifications and export halal foods and products. As for the legitimacy aspects, these countries have policies and laws to ensure that halal certified products are authentic, and to protect the halal trade from fraud and misrepresentation. Likewise, halal certification is becoming the cornerstone of the

development and production of halal compliant products³⁶.

Compared with the other countries above, the approach by the Government of the Philippines towards halal certification and industry development has been relatively slow and passive. One of the main reasons is that the majority of the population is predominantly Christian and Muslims are small minority. However, in the ARMM, the awareness of the business opportunities for the development of the halal industry became evident by the 2000's. It is a turning point, when the Philippine government, as indicated in the MTPDP 2004-2010, has designated the halal food industry as one of the strategies to promote agribusiness, and the ARMM as a strategic place for the growth of halal business enterprises.

Some institutional measures for halal industry development are being set up. The ARMM government came up with the ARMM Halal Industry Development Program and the Muslim Mindanao Halal Certification Board Inc. (MMHCBI) was established in 2006 by the DTI, the ARMM Business Council, and the Darul Ifa (House of Opinion)³⁷. By virtue of Republic Act 9997, the National Commission on Muslim Filipinos Act of 2009 was made effective in March, 2010. Consequently, the Office on Muslim Affairs (OMA)³⁸ was deemed abolished. Under the provisions of R.A. 9997, the National Commission on Muslim Filipinos (NCMF) is tasked to lead in the promotion and development of Philippine Halal Industry and accredit halal certifying entities/bodies, in partnership or cooperation with appropriate government agencies, and other institutions. However, by August of 2011, the NCMF is still drafting its criteria for the accreditation of halal certifiers. As a result, the new national system for halal certification and then national leadership for promotion of halal industry is not ready to function properly. In addition, since the NCMF is newly created institution, it has some difficulties to efficiently and effectively exercise the mandates in real terms. The main causes and/or reasons are due to meet perfect or clear contents of the mandates, inexperience of the office and staff in actual activities, the shortage of operation budgets and funds, etc. Currently, this limited administrative management capacity of NCMF is the one major basic issue for promotion of halal industry in the Philippines, because only after the criteria by NCMF are finalized; all the halal certifiers in the Philippines including MMHCBI will be mandated to apply for accreditation.

³⁶ Here are the key points in halal food production standards commonly adopted by various certifiers: i) all the raw materials and ingredients used must be halal; and ii) the slaughter of halal animals, the processing, manufacturing, and storing should be done in accordance with Islamic rules. Processing plant inspections will be regularly conducted in which inspectors look into the processes, equipment used, cleanliness, sanitation, possible contamination and cross-contamination along the production chain, packing and labeling, storage, transport, and other considerations that will likely pose hazards to human health.

³⁷ For the detailed system, refer to the latter section on Halal development plan.

³⁸ The OMA was originally mandated to attend to all issues pertaining to Muslim concerns. The objective is to serve as the principal agency of the State from which the Filipino Muslims can seek government assistance, a responsibility so broad as to include the protection of the cultural, social, and traditional rights as members of a national minority.

2-5-2 Regional Program to Promote Halal Industry

(1) Halal Industry Development Framework

As a flagship program of the ARMM, the Halal Industry Development Inter-Agency Technical Working Group (TWG) headed by the DAF and co-chaired by the DTI, was organized as the mechanism for harmonizing and institutionalizing the development of the halal food industry in the region in 2005. In the following year, the ARMM Halal Industry Development Program Framework was crafted as an economic re-entry plan with three main components: i) the crafting of a unified halal certification system and the creation of a single halal certifying body, ii) marketing, promotion and business development, iii) the aspects of production, and iv) halal certifying system. Within this framework, MMHCBI was established as a body which certifies halal products and services.

(2) Regional Halal Food Industry Plan

In 2009, the Plan was formulated for growth and development in the halal industry in the ARMM. The core objectives of the plan are to: i) increase the volume of halal compliant agri-fishery products in the region, ii) have existing local investors of food products and services in the ARMM be halal certified, and iii) have new and foreign investments in halal compliant food products and services generated. Table 2-24 shows the targets, strategies, and programs and projects for each objective.

Table 2-24: Contents of the Regional Halal Food Industry Development Plan

Objective 1: To Increase the Production Volume of Halal Compliant Agri-Fishery Products		
TARGETS	STRATEGIES	PROGRAMS & PROJECTS
1. Increase volume of agri-fishery production by 30% in 3 years in compliance to Halal standards	-Expansion of Agri-fishery areas to increase production	-Sustainable Agri-fishery production: (i) Crops (corn, mango, banana, oil palm); (ii) Livestock (cattle, goat, poultry); (iii) Fishery (Tilapia, Bangus, Seaweeds)
2. Facilities of ARMMIARC with be developed as center for R& D	-Improvement of ARMMIARC facilities intensification of R&D programs	-Reserch and Development (technology generation and technologyverification)
3. Estatlish techno-demo	-Utilization and adaptation of verified technologies	
4. Conduct information drive through quad-media approach	-Intensification advocacy campaigns for Halal Certification Institutionalization	-Halal advocacy program (quad-media and conference)
5. At least 20 farm producers were issued halal cetificates annually		
6. Provide capital assistance/loan to association or cooperatives	-Organization strengthening and provision of capital of cooperatives and associations	-Halal financin program (credit facilitation, develop financing scheme)
7. Provide infra and post-harvest facilities	-Institutionalization, sustenance and maintenance of hatcheries, abattoirs and other support facilities	-Infra and other post harvest suppor facilities (establishment of hatcheries, mariculture, packaging ceter, iceplant and cold storage, operation of slaughterhuses, tissue culture, livestock
8. Conduct training	-Capacitation of stakeholders on the utilization of appropriate technology	-Institutionalization and capacity building program on artificial insemination, cattle fattening, issue culture of banana, organic farming, aquaculture, animal production
Objective 2: To Encourage Local Investors to Venture on Halal Compliant Food Product and Services		
1. Provide infra and post-harvest facilities supportive to Halal	-Insttutionalization, sustenance and maintenance of Laboratory centers,	-Infrastructure and other post harvest support facilities such as regional standard and testing lab, processing plants,
2. Utilize Mindanao State University as center for Halal education	-Intensification of R&D through development of human resource	-R&D program
3. Conduct of seminar, briefing and other activities supportive to Halal industry	-Intensification of advocacy campaigns for Halal Certification	-Halal advocacy program (orientation on Halal Fraud Bill, institutionalization and celebration of halal consumer, establishment of one stop information center
4. Parqticipated conducted trade fairs	-Promotion of appropriate technology, policies and guidelines	-Marketing and promotion (establishment of halal product outlets, strengthening marketing strategies, fair, promotion of ecozone/halal hub as strategy for halal development and the provincial incentives code)
5. Conduct orientation of the policies and any guidelines relative to halal	-Participation to the exhibits and for a locally and abroad	
6. Local codes, guidelines and policies formulated, adopted and implemented	-Enforcement of the regional government directive on harmonizing halal support system inclusion of halal incentive	-Development Administration and Governance (passage of Halal Fraud Bill, inclusion of the Halal Food Industry plan to the LGUs development plan, enactment of regional administrative code, policy support program, public hearing,
Objective 3: To Generate Local and Foreign Investment on Halal Compliant Food Products and Services		
1. REZA operationalized and functional in 3 years	-Institutionalization of REZA operation and management	-Infrastructure and other post harvest support facilities (concrating, stripping and gravelling of circumferential road, construction of water system level II, improvement and expansion of bongao airport, improvement of Jolo Airport, Constuction of micro-hydro and solar power facilities improvement of offsite facilities
2. Develop 1 economic zone	-Construction and rehabilitation of ports, roads and other support facilities	
3. Two provincial airports improved and upgraded within 3 years	-Promotion of oil depot operation as an investment opportunity	
4. 10% increase of new roads		
5. Operationalization of oil depot in Parang, Maguindanao		
6. Upgraded the facilities in Polloc port		
7. Conduct peace dialogue	-Capacitation of stakeholders on the utilization of appropriate technology	-Institutionalization and capacity building program (networking, seminars, meeting)
8. Developed and implemented mechanism on peace building	-Promotion of culture of peace	
9. 10% annual increase in new investments	-Enforcement of the ARG directive on harmonizing halal support system	-Development Administration and Governance (declaration of Halal Hub, operationalization of REZA, enactment of Halal iIncentives Code, declaration of Regional Agro-Industrial Growth Center, declaration of Provincial Industrial Estates)
10. Local incentives code formulated, adopted and implemented		
11. Joint business ventures	-Formulation of Halal Financing Scheme	-Halal Financing Program
12. ARG shall allocate funds for credit financing annually		
13. Conduct quarterly M&E	-Formulation and development of M&E	-M&E (conduct of M&E and feed bakcking mechanism and data banking
14. Develop Halal Information System	-Establishment of information system	

Source: Regional Halal Food Industry Development Plan

The total investment requirement for the implementation of the Plan for the three-year period is Php 4.53 billion. Out of this, Php 2.74 billion, which accounts for 60.36% of the total investment, has been funded or is being implemented. Those major funded programs/projects were either selected or taken from different departments and agencies of the ARMM regional government as possible halal industry promotion related programs/projects. Some of the examples are infrastructure projects like farm to market roads under DPWH, construction of slaughter houses and other production related projects under DAF and staff/stakeholder development activities under DTI (e.g. OTOP). The causes or reasons of those unfunded programs/projects could be shortage of applicable fund, insufficient project/program preparation and uncertainty of the close relationship for promotion of halal industry, etc.

The Plan is to be implemented over the long term, but the Plan includes only three-year investment programs and requirements. Thus the ARMM Halal Industry Development Management (ARMM-HIDM) was set up for the overall management of halal industry development in the region. The Halal Industry Development-TWG is expected to play a role in the following: coordinating with the concerned agencies; formulating and implementing policies, rules and regulations; preparing policies, plans, programs and projects; and preparing regular reports and updates of the halal industry's development.

Several major internal weakness and external threats were reported in the plan. In particular, the major internal weaknesses which were specifically identified were as follows:

- Non-contiguity of the whole region, due to separation of island provinces and Mindanao mainland provinces.
- Limited supply of appropriate social services, due to mismatch between available skills and industry requirements, relatively low functional literacy rates and lack of awareness on the hygiene, etc.
- Peace-related concerns in this conflict affected area, along with very unstable general security situation.
- Limited devolution of public administration to the ARMM government, such as maritime, land and air transportation and communications; patents, trademarks, trade names, and copyrights; and, foreign trade.
- Limited halal production base and unavailability of commercial scale production.
- Certification-related concerns such as the lack of awareness and appreciation on the importance of halal certification, non-compliance to accreditation requirements for halal certification, mislabeling of products as halal, low awareness on halal products and the limited halal compliant agri-fishery products.

- Absence of infrastructure and other support facilities, such as halal certified slaughter houses, halal accredited dressing plants/storages, halal laboratory and qualified technical personnel, etc.
- Weak implementation of locally enacted laws due to absence of funds, such as the Muslim Mindanao Autonomy Act Nos. 154 and 161, otherwise known as REZA Law and Regional Sustainable Forest Management Act, in the ARMM, in respectively.

Finally, the plan indicated in the problem analysis that the core problem is limited production of halal-compliant agri-fishery products, along with lack of investors engaged in halal-based business enterprises.

2-5-3 Major Private Institutions for Promotion of Halal Industry in the ARMM

(1) The Muslim Mindanao Halal Certification Board, Incorporated (MMHCBI)

Within the framework of the Halal Industry Development Program, MMHCBI was established in 2006 by the DTI, the ARMM Business Council, and the Darul Ifa (House of Opinion). The Board which serves as a certifying body extends to products that are produced and circulated in other parts of the country where its stamp of approval is sought. The Board is composed of 15 members based at a central office in Cotabato City while a seven-person certifying committee is established in each of the provinces within the ARMM. The Board and the committees have their respective pools of trained inspectors and auditors. The Board is a private-led, SEC-registered, non-governmental organization recognized by the ARMM.

The Board uses shariah- and science-based approaches to certify products and services and accredit facilities which are deemed to be in full compliance with halal regulations. The guidelines are based first and foremost on religious observance, while they stress the use of scientific methods to detect prohibited ingredients and monitor likely contamination along the production chain. Laboratory tests are used to ascertain the presence of lard, pork derivatives, blood and blood by-products, alcohol residue, genetically modified components, and gelatin in processed or manufactured foods. The Board is not limited to ascertaining haram (forbidden by Islamic law) ingredients in fresh or processed food products. It also determines whether a food or non-food product contains harmful biological, chemical, and physical contaminants.

Since its establishment, the MMHCBI has steadily expanded its administration of the mandates. Although the MMHCBI is yet to apply for accreditation as halal certifier to NCMF, its certification process is currently recognized as both a Philippine national and international certification process. The status of the MMHCBI as a credible halal certification body has gained momentum with its partnership with local and international organizations, such as the International Halal Integrity (IHI) Alliance, the partner of the Islamic Chamber of Commerce and Industry (ICCI), the economic wing of the Organization of Islamic Conference (OIC). The MMHCBI also signed a Memorandum of Understanding with the University of Southern Mindanao (USM) in Kabacan on March 3, 2009 for research and education, information dissemination, and technical exchanges and cooperation.

MMHCBI itself does not have any technical laboratory to analyze the ingredients of the materials of possible halal products. As a proper procedure of the halal certification, MMHCBI requests the applicants to submit genuine technical certificates which are issued by any reliable research institutions to prove that the ingredients of the product is halal but not haram. All the certification procedures are carried out by MMHCBI in principle. However, if there is any reservation or doubt about the contents, production and processing and at the same time where it is difficult to carry out technical investigation/analysis by itself on the grounds of technical sophistication, high cost and/or physical burden, MMHCBI is able to ask assistance from relevant authorities, such as government research institutes, advanced education and training organizations and/or prominent private research institutions.

As of November 2010, 37 establishments in and outside of ARMM were granted the certificate by MMHCBI. Nevertheless, as the operations of halal certification, auditing and information dissemination of MMHCBI rapidly expands, there are emerging challenges such as; i) shortage of resources both of financial and facility and equipment, ii) management know-how required as a solid NGO organization, and iv) advanced scientific and technical knowledge for technical verification, auditing, and public relations. The need to improve the technical capacity for effective halal auditing of products and services is its most pressing capacity development need. The advanced knowledge and technologies for halal auditing of products and services will lead to increased trust in the effectiveness of the MMHCBI's product certification and in the certified products made in the region.

The procedures in acquiring halal certification are shown in Figure 2-20.

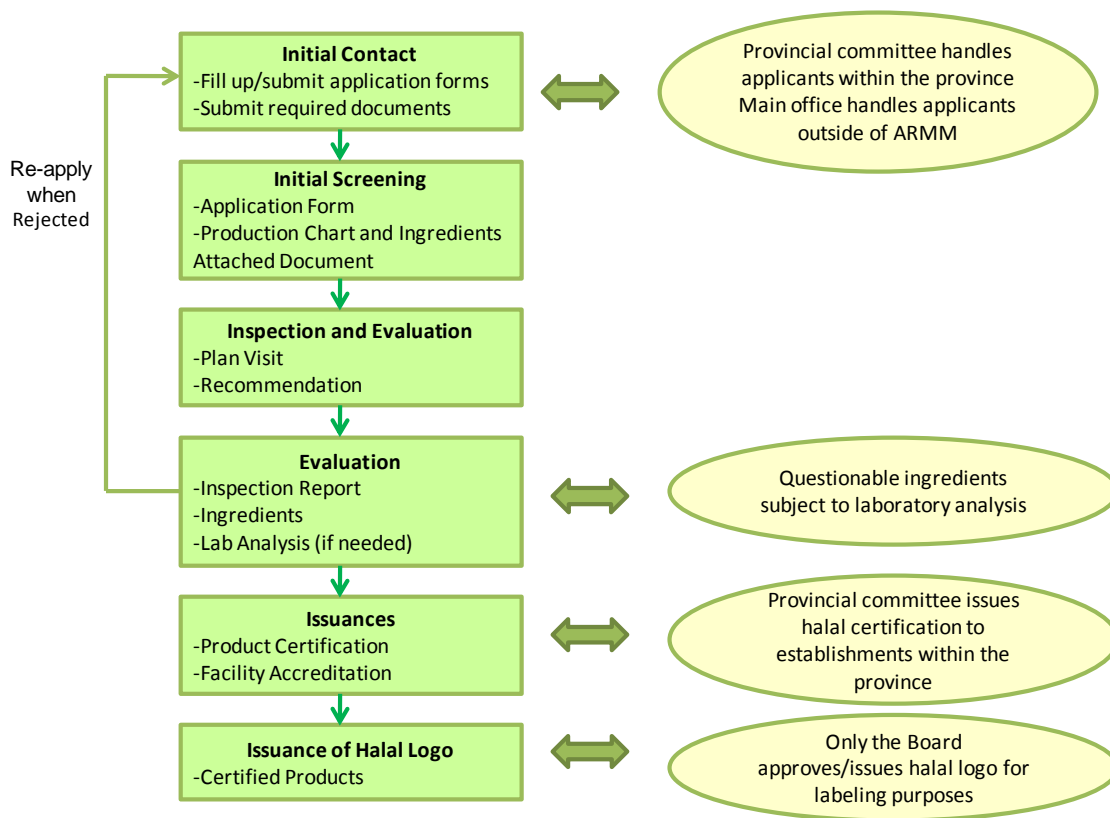


Figure 2-20: Halal Certification Flow of MMHCBI

(2) The ARMM Business Council (ABC) and affiliated Chambers of Commerce

The ARMM Business Council (ABC) is working closely with DTI, RBOI, LGU’s and the MMHCBI in the marketing and promotion of the halal industry development in the region involving its affiliate chambers of commerce and trade associations. One of the basic roles of ABC is to promote the development and assistance for SMEs as explained in the former section.

However, given the prolonged period of unstable security situation and related political confusion in this area, both the capacity and performance of ABC to accomplish its designated purposes have been very limited. There are several needs for capacity development for ABC, including i) an operational database on industry profile, investment environment, and government incentives and procedures to assist would-be investors in the halal business and those who are about to engage in halal ventures, ii) the technical know-how and skills of setting up and managing such a database, and iii) construction of physical facilities, supply of equipment, development of software and other technical solutions.

The affiliated members of the chambers of commerce in the ARMM have a lack of technical know-how and expertise in organizational and event management, preparation of investment proposals, and marketing and promotion strategies and they need training for entrepreneurship, marketing and promotion, food processing and packaging, and then business matching facilitation. Not classroom-based learning but hands-on exposure type training is desirable and effective in molding the knowledge and skills of the beneficiaries of a training program.

(3) Civil Society Organizations (CSOs)

As aforementioned, the CSOs play a critical role in the social, developmental and political transformation of communities. It is important to mobilize the overall activities of CSOs and let them contribute to halal industry development. Provision of supports to CSOs will enable human resource development to serve as the catalyst in overcoming many external and internal constraints and obstacles for development because it can start with relatively few resources available.

The case of “Federation of United Mindanawan Bangsamoro Women Multi-Purpose Cooperative (FUMBWMPC)” can be considered as an example. It was established in 1997, as a product of Peace Agreement of 1996 between GRP and MNLF. The women participated in various capability building programs to learn the skills in production and service skills, business management, marketing and other related economic knowledge, as well as project planning, coordinating and implementing projects. After that, they initiated various projects with the assistance of donors. The need to consolidate planning, delivery and post-delivery assistance issues have driven the women to strengthen their group by organizing all primary cooperatives into their federation. Currently, FUMBWMPC is an umbrella organization of 127 primary cooperatives and associations operating within and outside of ARMM, engaging in i) economic development and livelihood, ii) socio-political awareness and participation, iii) human resource development, iv) home, family, personality development and improvement, v) organizational development, and vi) spiritual enrichment. Therefore FUMBWMPC might be one of suitable and available candidates for development of halal industry.

In this survey, it is recognized that the purposes and contents of the activities undertaken by most of these CSOs have been on emergency and humanitarian aid for the internally displaced peoples (IDPs) who have come to existence due to prolonged armed conflicts in the area over the last 40 years. As a result, it has also become clear that there is no major CSO which has actively tackled and promoted halal industry in the ARMM, except MMHCBI. Considering the present general inactive situation in the ARMM, it is very important to promote halal industry from grass-root level. Therefore, in order to apply grass-root approach, it can be regarded as

advantageous to utilize any economic related CSOs such as ARMM Business Council, its affiliated Chambers of Commerce and prominent universities for promotion of halal industry in the ARMM.

2-5-4 Role of Capacity Development for Promotion of Halal Industry in the ARMM

As mentioned above, human resource development for CSOs may be the key in initiating the action for halal industry promotion. Where the strong attachment to traditional religious and cultural values prevail, as in the ARMM, it is advisable to apply the traditional solidarity into self-help capacity development within the communities. This is an attempt to build up the economic activities from a grassroots level to the local industry level. This bottom-up approach may be more effective than the approach based on the trickle-down theory, to promote the halal industry in the ARMM as a conflict-affected area.

In order to minimize or divert bottlenecks and constraints in the pursuit of halal industry establishment, the ARMM Human Capacity Development project by JICA (2008-2011, extension 2011-2013) may be worth noting, because of the emphasis of direct link between the government and farmers as end beneficiary, and encouragement of farmer's own initiative. It emphasized the technical training among farmers on goat production and its business management by the selected ARMM government officials. The ultimate aim is to formulate the very basic core of halal industry development in the ARMM. The characteristics of the training program are as follows:

- 1) The project selected a group of permanent staff and organized a Technical Working Group (TWG) in the ARMM government. The aim is to concentrate on technology transfer and to make it sustainable, and then to let them become more aware of their administrative responsibility in practice.
- 2) The cluster identified goat production and its business management as the training subject. Goat was selected not only because of its economic viability, but also because of its familiarity to the Muslim population in the target area.
- 3) The training provided an integrated program of goat production technology and its business management know-how, along with halal certification and marketing. Although basic knowledge was taught in classrooms, emphasis is being placed on field activities. In this way, the program intended to formulate and disseminate the halal goat business among goat farmers at the grassroots level.
- 4) The program introduced the Trainers of Trainings (TOT) system, with the original TWG members becoming resource persons. Eventually, technology transfer is carried out to the

ordinary goat farmers as the end beneficiary. The project stresses that the private sector is the major driver of economic development from the grassroots level.

The human capacity development program of the economic development cluster aims to foster entrepreneurship in the goat business among the grassroots farmers and to encourage its development halal goat industry through the accumulation of successful cases in the ARMM. The training emphasizes hands-on activities, with the farmers expected to apply their learning experience to their actual production and business management. The project also encourages a sense of entrepreneurship among the goat farmers. The unity and solidarity of goat farmers, which may be derived from traditional social values and customs, will be an indispensable asset for the success.

It also defines the function of the government and its officials in policy formulation and the commitment of administrative services. In this way, the program is proposing ways that the ARMM government and its officials can become more capable in promoting the halal industry in the region.

2-6 Donor Support

2-6-1 JICA Projects in the ARMM

(1) ARMM Human Capacity Development Project (2008-2011; technical cooperation)

As described in 2-5-2, the purpose of this project is the enhancement of the administrative capacity of the ARMM government. The project carries out intensive training for the middle management personnel and the core operations staff of related departments in the spheres of economic development, infrastructure development and administration development. In the sphere of economic development, a basic survey on local industry development was carried out, and goat production was identified as the priority industry. In the training program, technologies and know-how related to goat production, business management, halal certification and marketing are being taught. Thus, it is fair to expect synergy effects for the promotion of local industry. At the end of the initial period of three years of 2008-2011, the project was regarded as success by accomplishing the project purpose in the final evaluation. It was extended for two more years in order to strengthen the sustainability of the project outputs and commitment by the ARMM government.

(2) Study for Socio-Economic Reconstruction and Development of Conflict-Affected Areas in Mindanao (SERD-CAAM) (2007-2009; development survey)

The purpose was the preparation and implementation of the reconstruction and development plan for the conflict-affected areas in Mindanao. The basic components of this comprehensive survey were a sample survey of socio-economic conditions at the barangay level, and the implementation of pilot projects for reconstruction in conflict-affected areas. Such pilot projects included rehabilitation of school facilities and provision of portable water supply. In the socio-economic survey, the current conditions of the basic infrastructure and local communities were examined. The survey also carried out barangay profiling and the preparation of a database. Based on the results of the survey and experiences of the pilot projects, the formulation of a community development plan in a conflict-affected area is now under consideration.

(3) ARMM Social Development Fund (Yen Loan)

The purpose of this project is community development and regional infrastructure development through the initiative of ordinary people in the designated areas. The scheme has joint funding from the World Bank, CIDA and JBIC. The project expects that the construction of small-scale infrastructure, through the initiative of people in the designated areas, will provide basic social services and increase income generation opportunities through promotion of locally-based agriculture, forestry and fishery industries. In this way, the project intends to alleviate poverty and support sustainable social and economic development in the ARMM. In this project, 700 districts (JICA is responsible for 200 districts) out of 2,400 districts in the ARMM are the target of the development survey. The implementation of locally-based components is expected to double the effects of the outcome of the project.

2-6-2 Other International Donors

(1) Canadian International Development Agency (CIDA)

The Local Government Support Program in the ARMM (LGSPA) was implemented in 2005-2009 by CIDA in partnership with the ARMM Regional Government. Total project cost was Php 821.5 million. The overall goal is to reduce poverty and achieve sustainable peace and development in the ARMM through excellence in local governance. The program aimed to strengthen local governance in the ARMM with respect to local government leadership and management, service delivery, resource generation and management, participatory governance and peace and to strengthen the enabling environment.

The LGSPA capacity development effort revolves around two major outcomes. The first outcome, excellence in local governance has been characterized as more efficient and effective LGU leadership and management, while the second outcome, enabling environment includes

enhanced access to and improved quality of services; more equitable, efficient, effective, transparent and sustainable generation, allocation and utilization of resources; more effective and equitable participation by individuals, private sector and civil society organizations; and more effective peace building and conflict resolution and improved peace, order and community harmony. At the regional level, the program builds a supportive enabling mechanism encompassing legal and regulatory frameworks, institutions, resources, and cultural appropriateness and sensitivity. The LGSPA strengthened intergovernmental relationships between regional and local levels. The details on economic development through the Project will be addressed later.

(2) United States Agency for International Development (USAID)

USAID's Growth with Equity in Mindanao (GEM) program aims to: i) accelerate economic growth in Mindanao and help assure that many people benefit from the economic growth and that the benefits are equitably distributed, and ii) help bring about and consolidate peace in Mindanao. GEM Phase Three (2008-2012) operates throughout Mindanao but has a special focus on conflict-affected areas of Mindanao, including the ARMM. The GEM Program has five components intended to drive and support economic development. The components are: i) infrastructure development, ii) business growth development, iii) education improvement, iv) governance, and v) livelihood enhancement and peace. The total project cost is US\$ 80.8 million. Stakeholders of the Program are mainly producer associations and cooperatives, the Mindanao Business Council, the ARMM Business Council, chambers of commerce and private firms, the parents association, the ARMM Regional Government, and national government line agencies, local government and other donors. The details on economic development component through the Program are provided later.

(3) Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

The Private Sector Promotion (SMEDSEP) Program, a technical cooperation project between the Republic of the Philippines and the Federal Republic of Germany, was conceived to help improve the Philippine business and investment climate for MSMEs. The Program aims to improve the framework for private sector development in the Philippines, especially in the Visayas. The objective is to be attained by means of three components: i) harmonization of the National SME Development Plan, ii) models to improve the local business and investment climate, and iii) support of the National Competitiveness Council in technical, organizational, and methodological aspects and implementation of capacity. The Program has a long-term implementation strategy with three phases during the period of 2003-2012.

(4) World Bank

The Mindanao Rural Development Project (MRDP) funded by the World Bank aims to reduce poverty for the rural poor and indigenous communities of Mindanao. The objectives of the project are to: i) increase agriculture production and efficiency and the diversification of rural economic activities, ii) improve food security among the poor and increase rural incomes in a sustainable manner, and iii) provide a sustainable mechanism for rural development through improved institutional service delivery by LGUs and agencies concerned. The project involves three phases called adaptable program loans (APLs). Each phase is to be implemented for a period of four to five years, and the project will not be moved to the next phase unless there is strong evidence of performance based on specific triggers. Here are the components of the project: i) investment for governance, ii) rural infrastructure, iii) community fund for agriculture development, and iv) national resource management. The total project cost is US\$ 123.9 million.

The objectives of the MRDP APL2 are to: i) alleviate poverty, ii) increase incomes and iii) enhance food security among the rural poor of Mindanao. They are to be pursued through sub-projects such as infrastructure, community funds for agricultural development, natural resource management and investment for governance reforms that are identified by the communities at the outset, and planned, implemented and monitored and evaluated by the LGUs, together with national government agencies, by way of consultation with and strong involvement of target beneficiaries. The approach is viewed as a reinforcement of the intent and purpose of the Local Government Code, which is to strengthen its capacities to plan and deliver devolved agricultural services.

(5) Asian Development Bank (ADB)

The mandate of the Mindanao Basic Urban Services (MBUSSP) funded by the ADB is to provide institutional strengthening and capacity building programs to improve the living conditions of urban poor communities and reduce poverty in urban areas. The MBUSSP provides an array of capacity building activities that address various knowledge and skills required by the LGUs in the development of the urban sector. This involves the provision of technical assistance and advisory services to the DILG and the LBP including their field offices and is focused on enhancing the technical, financial and managerial skills of the LGUs. This program consists of package of assistance which is being carried out as a vital component activity of the institutional strengthening program for the Project stakeholders - the DILG, LBP and the LGU - while enhancing the active participation and direct involvement of the relevant local organizations in sub-project preparation, implementation and management.

(6) United Nations (UN)

The Action for Conflict Transformation for Peace Program, or simply the Act for Peace, is a successor program that builds on the gains of the Government of the Philippines-United Nations Multi-Donor Program (UNMDP) phases one, two and three. The Act for Peace Program seeks to strengthen peace-building efforts and sustain the gains made in peace and development in Southern Philippines. The program is part of the continuing effort to support and realize the provisions and commitments embodied in the 1996 Peace Agreement between the MILF and the Government of the Philippines.

The main target areas of the program are the areas of potential conflict and in post-conflict situations and the purposes are to: i) build local capacities for conflict prevention and peace-building, ii) deliver basic services and capacity building for conflict prevention, and iii) provide relief and rehabilitation of areas affected by ongoing armed conflict and in post-conflict areas. The Program works with multiple stakeholders and promotes peaceful change at different levels. Social capital, essential to peace-building, is to be strengthened through the consolidation of people's organizations and other community-based social transformations. The program intends to achieve this by strengthening the capability and capacity of the Peace and Development Communities (PDC) declared and organized during the UNMDP phase three. As of September 2010, there were 278 PDCs all over Mindanao, including the ARMM.

The Program implementation strategy is based on five operational components, namely:

- Component 1 – Strengthening the social capital for peace building;
- Component 2 – Promoting human security through improved access to basic services;
- Component 3 – Promoting human security through economic development;
- Component 4 – Building capacity for conflict transformation;
- Component 5 – Promoting and advocating a culture of peace through peace-building and conflict transformation.

To date, the Act for Peace Program has provided community economic development (CED) projects to 101 PDCs in the five ARMM provinces. The total Program assistance to the PDCs for economic development projects reached Php 27.8 million. These CED projects have benefited 9,273 community members and have contributed to the employment of 366 individuals in the PDCs. Part of the implementation requirement for the CED is the provision of counterparts from the beneficiaries and the host LGUs. The program has generated Php 7.34 million funds from beneficiaries and Php 127,500 from the LGUs concerned.

CHAPTER 3 CASE STUDIES ON LOCAL INDUSTRY PROMOTION IN THE ARMM

3-1 Study Methodology

(1) Objectives

The objective of the case study is to propose appropriate approaches for local industry promotion in the ARMM from a regional perspective. The case study is to i) conduct a series of case studies for local industry promotion in the region, collecting information and data on current situation and challenges, ii) describe different approaches, iii) identify lessons learned from those cases in different approaches, iv) conduct social assessment in the context of the ARMM, and v) address recommendations for appropriate approaches.

(2) Methodology

The Study was conducted through literature reviews and a field survey. Due to security conditions, the field survey was limited to Maguindanao province where relevant LGUs, companies, and cooperatives were visited (Table 3-1).

Table 3-1: Target Groups and Private Companies in the Field Survey

	Name	Place
1	Upi Women's Federation	Upi
2	Agri Venture Corporation	Upi
3	Kalutan Farmers and Fisheries Multi-Purpose Cooperative	Parang
4	Stateliner Cooperative	Sultan Mastura
5	Simuay Diamond Rice Mill	Sultan Kudarat
6	Taliawid Multi-Purpose Cooperative	Datu Odin Sinsuat
7	Pareh Blah Farmers Cooperative	Datu Odin Sinsuat
8	Agumil, Corporation	Buluan

3-2 OTOP in the ARMM

(1) Overview

The One Town One Product (OTOP) in the ARMM is part of the national program on OTOP implemented by the DTI-National. DTI-National provided the overall guidance and technical assistance in the implementation of the OTOP in the regions. DTI-ARMM (Hereinafter called DTI) is the designated lead agency for the implementation of the OTOP in the ARMM and advocated for the implementation of the OTOP strategy within the ARMM Regional Government (ARG) and the LGUs. The OTOP was included in the ARMM Regional

Development Program (RDP).

(2) Support from CIDA-LGSPA

In 2005, the DTI participated in the Local Economic Development (LED) Coach Program sponsored by the CIDA-LGSPA as part of its capacity building program for LED program. The coaching program helped strengthen a critical realization among the agency participants on the role of local governments and other local stakeholders in local economic development. The participants acknowledged that the program would provide a vehicle to promote strategies such as the OTOP model and other techniques for promoting enterprises by providing coaching support to LGUs as an integral part of the DTI's services.

The LGSPA LED program involves the participatory process of formulating a local economic development plan. The LED planning process include five stages, namely i) organizing the LED effort in the LGU, ii) conducting the Local Economy and Competitive Assessment (LECA), iii) formulating strategy, iv) implementing strategy, and v) reviewing strategy.

The LED process identifies the economic advantages and competitiveness of a local government. The process involves not only the LGU and the government agencies, but also the private sector involved in the local businesses. The end-product of the LED process is the LED plan which outlines the strategies and resources that need to be mobilized and to implement a local economic program. The OTOP strategy fits and complements the LED process, as it also involves the identification and development of core products and services that the LGU will promote and market.

The LGSPA LED planning process was participated in by eight LGUs in the ARMM, as shown in Table 3-2. The LED plans of the participating LGU became the basis for the identification of the OTOP for each of the LGUs with the guidance of the DTI.

Table 3-2: LGU LED and OTOP Programs

LGU	LED Goals	Identified OTOP
Upi, Maguindanao	To strengthen the Business Development Center as the mechanism for community development	Corn Industry
Datu Odin Sinsuat, Maguindanao	To be the Halal Livestock and Poultry Production Center in Shariff Kabunsuan and Maguindanao Province To develop the livestock sector in order to provide employment and alternative income sources	Livestock & Poultry Industry
Parang, Maguindanao	To become an agri-aqua investor's haven in the ARMM	Seaweed Industry
Sultan Kudarat, Maguindanao	To be the center of inaul production and inaul base products	Inaul Products
Wao, Lanao del Sur	To develop the Wao livestock and poultry production in order to provide additional income source to farmers	Livestock Industry (Goat & Cow)
Lamitan, Basilan	To develop the Lamitan rubber industry	Rubber Industry
Bongao, Tawi-Tawi	To develop the Bongao Trading Hub/Central Business District	-
Jolo, Sulu	To develop a Free Trade Zone in order to take advantage of Jolo's strategic location	-

In the LED planning process, a stakeholder analysis was conducted to determine the interests, roles and contributions of the identified stakeholders in the LED process and in the OTOP. The identification and analysis of stakeholders was facilitated by the DTI, coached with support from the LGSPA. Common stakeholders from the private sector are cooperatives, farmers' organizations, small businesspersons, and market vendors. The stakeholders participated in the workshops and meetings for the LECA and the actual LED plan formulation. The DTI coaches acts as facilitators and mentors in the LECA and plan formulation.

(3) Budget

As explained before, DTI has budget constraints with little funds to support its operations and provide technical services to clients, including the LGUs. During the LGSPA implementation, the program augmented the limited financial resources of the DTI by providing coaching and travel allowances to selected DTI specialists from the regional and provincial offices involved in the LED planning process. In addition, the DTI team was given the necessary training, capacity-building and mentoring support in their role as coaches to undertake the LED planning process.

(4) Current Status of the OTOP Activities

With the LGSPA's implementation of the LED program, the DTI was given leeway in advocating for and implementing the OTOP. The priority programs identified in the LGSPA LED became the priority OTOP for the DTI, including the Tugaya brass industry and Sultan

Kudarat's inaul production. Using the LED process, the DTI regional and provincial offices assisted LGUs in identifying the specific products or services, and in pulling together all the services required. Aside from the LGSPA, the DTI replicated the LED process in other municipalities in identifying the OTOP priority. As of June 2010, 44 LGUs had identified their respective OTOPs. To sustain the initiative, Sanguniang Bayan (municipal council) resolutions were passed to ensure that the OTOP declaration is covered by local legislation.

The official resolution adopting the identified products as the OTOP is not a guarantee for its success. The LGU resolution is still part of the initial process of confirming the product/service as the local OTOP. The LGUs have to go into the serious business of consolidating the resources needed to produce the OTOP and the establishment and communication of the brand that will distinguish the product with the rest, i.e., the difference between the "rice" OTOP of Datu Paglas from the "rice" OTOP of Kabuntalan and the other municipalities. More importantly, the LGUs also have to establish a marketing and selling strategy together with the private sector business participants for its identified OTOP.

This part of the OTOP process is more substantial, and involves technical activities that require external assistance. The DTI and the other agencies could provide the technical support, but the question is an availability of the budget to support the required processes. This is the main limitation of the OTOP strategy. Most of the LGUs do not allocate the necessary funds to make the OTOP operational. The line agencies, on the other hand, are also financially hard-pressed to provide the necessary financial assistance.

The whole process of identification, production, product consolidation, and marketing of the OTOP does not have specific timeframe. However, in order to make a mark in this process and to significantly contribute to the local economy, the process should be tied and linked to the local planning processes of the LGU to ensure that the OTOP gets prioritized in the local investment programming of the LGU during the term of the local mayor.

(5) Analysis of the OTOP in the ARMM

In the list of identified OTOP, only the municipalities of Upi, Tugaya, Wao and Sultan Kudarat have moved forward with their OTOP successfully compared to the rest of the municipalities. Critical to the success of the OTOP was the support of the local leadership in the municipalities concerned. The support of the local Sanguniang Bayan was also an important factor, as local legislation was needed to legitimize the priority industry.

However, the DTI was able to show the OTOP to the other LGUs outside of the project area of the LGSPA. Using the LED process introduced by the LGSPA, the DTI provincial offices

facilitated the identification of the priority OTOP at the LGU level, which demonstrated the capacity of the DTI to pursue its own programs.

The continuation of the OTOP in the ARMM is affected by the limited program funds available to implement the program. After the declaration of the OTOP, most of the LGUs have not implemented other activities to move their identified priority industry. Program funds should be continued beyond the identification of the main LGU product. The success of the OTOP depends on the commitment of the LGUs, which is defined by the amount of the investments and budget. The local government will effectively mobilize its private sector toward a common product or service. The convergence approach which means coming together and designing a common strategy for the benefit of a common beneficiary, was applied by the LGSPA and DTI in implementing the LED. The OTOP was helpful in bridging the limited resources of the LGUs and the DTI and in supporting the implementation of the program in the target municipalities.

Technical and financial assistance also comes in a trickle. Support for integrating the identified OTOP in LGU level planning and investments is solely lacking. The important assistance includes product packaging, branding, marketing, product development and other related services that would improve the marketability of the OTOP.

More importantly, the LGUs and the line agencies supporting the OTOP should understand that the program is not about the LGU producing and marketing the product. The ultimate objective is to mobilize the private sector, SMEs, and the local producers toward a common product. The absence of core producers who are willing and able to invest in the OTOP affects the development of the program. With technical assistance, the OTOP can become a complementary support program to the main economic and poverty reduction agenda of the administration, which is now focused on Private-Public Partnership initiatives and the expanded Conditional Cash Transfer (CCT) program.

3-3 Cooperatives in the ARMM

(1) Overview of Cooperatives

The ARMM is the region that hosts the largest number of cooperatives in the Philippines. The region has more than 6,700 cooperatives registered under the original Cooperative Code. These cooperatives are currently undergoing an evaluation and re-validation process under the revised Cooperative Code or the R.A. 9520. Because of the re-evaluation and re-registration of the region's cooperatives, the number of cooperatives in the region has dropped to 685, or 4.43% of the total number of cooperatives in the country in June 2010. These cooperatives have a

registered membership of 41,135 and assets worth Php 2 billion. The authorized capital of the cooperative reached Php 3.567 billion, of which Php 892.82 million has been subscribed, and Php 223.33 million is paid up.

(2) Budget

As a devolved agency, the budget of the Cooperative Development Authority-ARMM (Hereinafter called CDA) is taken from the annual ARG budget. Although receiving less than 1% of the total ARMM budget in the last five years, the CDA has a larger budget for its Maintenance and Other Operating Expenses (MOOE) than for personnel services. In 2008, the MOOE budget of the agency was Php 7.5 million, compared to Php 50 million for personnel services. The MOOE budget of the agency was Php 7.5 million, compared to Php 50 million for personnel services. The MOOE amount has slightly increased in 2008 to Php 7.6 million and to Php 10.9 million in 2010, compared to Php 5.8 million and Php 6.5 million for personnel services for 2009 and 2010, respectively (Figure 3-1).

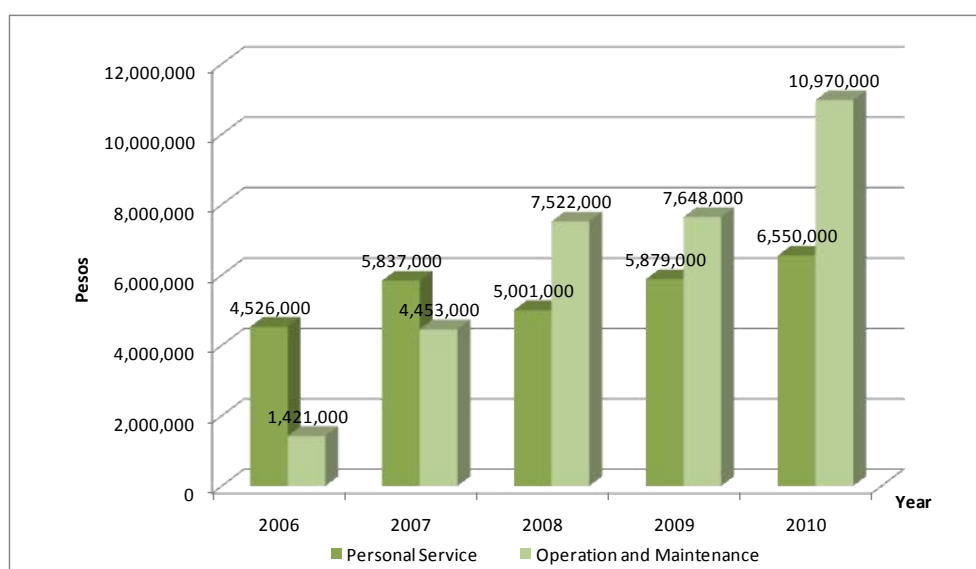


Figure 3-1: CDA-ARMM Annual Budget

Source: DTI-ARMM

(3) Current Status of the Cooperatives in the ARMM

1) Profile of the Cooperatives

As of April 2010, there were 755 registered cooperatives and 37,750 total members in the ARMM. Out of the total, 681 are re-registered, while 74 are newly registered in accordance with R.A. 9520. By province, Maguindanao has the largest number (348), which accounts for 46.1% of the total number, followed by Lanao del Sur (19.2%), Sulu (15.0%), Tawi-Tawi (11.0%) and Basilan (4.8%). In terms of the types of cooperative, multi-purpose cooperatives in agriculture (MPA) account for 73.5% of the total, followed by multi-purpose cooperatives not involved in

agriculture (MPN) (11.8%). Others are related to marketing (7.0%), production (3.7%), services (1.5%), consumer (1.3%), and credit (0.5%). Of the total 755 cooperatives, only 21 cooperatives were issued Certificates of Good Standing, which are used by cooperatives as supporting documents to avail themselves of assistance from funding and donor agencies (Figures 3-2 and 3-3).

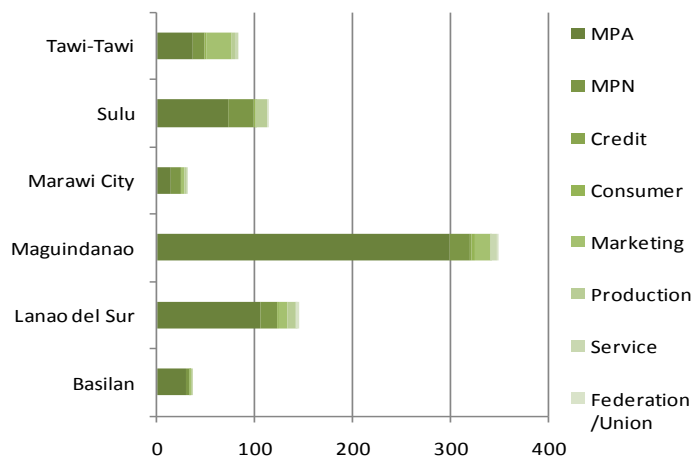


Figure 3-2: Number of Cooperatives by Type and Province in the ARMM

Source: CDA

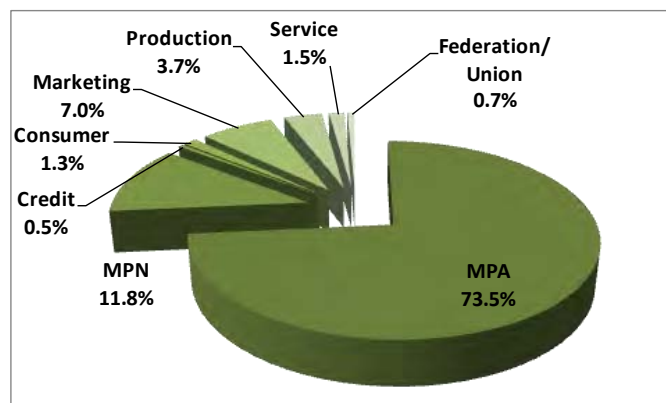


Figure 3-3: Cooperative by Type in the ARMM

Source: CDA

For the period from April to May 2010, 88 new cooperatives have registered. These cooperatives have a total membership of 3,252 and total paid-up capital of Php 2.815 million. This means that on average, each member has individually paid Php 865 to their respective

cooperatives.

2) Federation of the Cooperatives³⁹

Lanao del Sur and Tawi-Tawi have three cooperative federations respectively. Maguindanao province has one registered federation and Sulu also one federation. A cooperative federation serves the business interests or requirements of the primary cooperatives. As a separate entity, the cooperative federation can develop its own businesses, and acquire assets and loans from banks and other financial institutions that would support or augment the operation of the primary cooperatives. No information, however, is yet available on the kind of business in which the current cooperative federations are engaged.

3) Cooperative of Good Standing (CGS)

As of June 2010, a total of 98 CGS were issued to primary cooperatives by the CDA. Most of them are from Basilan, with 30 cooperatives. This is closely followed by Sulu province, with 26 cooperatives, and Maguindanao, with 20 cooperatives. Tawi-Tawi has only six CGS. Obtaining CGS status requires the submission of basic documents required⁴⁰. The CGS is an important document, particularly for income tax exemptions for the cooperative business. The CGS is also used by cooperatives to show good status in utilizing and requesting assistance from donor agencies and government financial institutions. The CGS is a nationwide program of the CDA and is renewed annually.

(4) Analysis of the Cooperatives in the ARMM

1) Types of Cooperatives

Generally, cooperatives in the ARMM can be categorized into two types. One is those cooperatives organized based on the principles of self-help and communal action. The other is cooperatives that were organized because members would like to obtain available economic support, usually financial, in order to start or augment existing enterprises. Both types of cooperatives follow the basic requirements for cooperative registration, including the

³⁹ The cooperative federation is a cooperative of cooperatives. A minimum of six cooperatives can form a cooperative federation. The registration of cooperative federations follows the same procedure as the registration of a primary cooperative.

⁴⁰ (1) Application letter duly signed by the cooperative Chairman or any authorized representative; (2) Endorsement from the Cooperative Development Specialist II (CDS II) assigned to the area; (3) Submission of the Cooperative Annual Performance Report (CAPR) together with the Audit; (4) Financial Statements for the preceding fiscal period; (5) Copy of the updated bond of accountable officers/employees of the cooperative; (6) Minutes of the Annual General Assembly Meeting for the preceding fiscal period, including the results of the election of the Board of Directors and the Committee members, in accordance with the bylaws; (7) Certification by the Chairman or the Secretary of actual specific business undertaken during the preceding fiscal period, showing that the cooperative making the request is compliant with the Standard Chart of Accounts appropriate to its type; (8) Certification from the Legal Officer of the CDA Office that the cooperative has no pending case; and (9) Payment of Certificate fee of Php 200.

contribution of capital and savings.

The basic difference, however, is shown in the sustainability and organizational capacity of the cooperatives. The cooperatives organized based on self-help and communal action tend to be more organizationally capable and manifest sustainable operations. This has been shown in the experiences of the Stateliner Cooperative in Sultan Mastura and the Taliawid Multi-Purpose Cooperative and the Pareh Blah Cooperative in Datu Odin Sinsuat⁴¹. The members of the cooperatives are former MNLF combatants and were organized after the signing of the 1996 Peace Agreement between the Government of the Philippines and the MNLF. In these cooperatives, the value of continuous capital accumulation is identified as a key factor in the sustainability of the cooperative. General assembly meetings and organizational planning are also conducted on a regular basis.

On the other hand, the common denominator is that these cooperatives were organized mainly as a vehicle to access projects and financial resources is the absence of clear organizational direction and membership participation. This was observed in the cooperatives in Parang, which were organized to engage in seaweed production projects, and those in Sultan Mastura, which was organized as a recipient of community-based livelihood projects. Capital-build up in these cooperatives is minimal and the meetings are also irregular.

2) Factors for the Success and Sustainability of the Cooperatives

- Strong Leadership

Strong leadership is provided by the former MNLF leaders in the cooperatives organized as a result of the peace agreement. These cooperatives continue to survive and operate because of the vision and aspirations that have been instilled in their members. The cooperatives do not operate only for specific projects, but also incorporate their activities into community-based undertakings such as community water-system, road improvement and the overall maintenance of peace in the community. The leadership capacity of the former MLNF combatants was further honed by the UN-funded Act for Peace Program through its leadership development program and trainings. Aside from leadership training, the Program provided the leaders with management skills training. The cooperatives that have shown good management and leadership examples are tapped to train other cooperatives and organizations in a replication process.

⁴¹ Case studies on the Taliawid, Pareh Blah and Stateliner cooperatives.

- Leadership and Composition of Membership

Family-based leadership is exercised in some of the project-based cooperatives (e.g., Kalutan seaweeds growers' cooperatives). These cooperatives continue to operate with the strong leadership of a family or families who are dependent on a particular economic activity (e.g., seaweed farming). In the ARMM context, this type of family-based management system with leadership is considered as important by those residents not only for economic purposes, but also for the maintenance of family tradition and culture. Engagement in business activity with which the members of cooperatives are familiar with and can effectively manage has been the operational mantra of the successful cooperative in the pursuit of their economic goals. Keeping operations simple and immediately responding to the needs of members in terms of farm inputs or facilities strengthen the cohesion between cooperative members⁴².

- Networks and Linkages

Networks and linkages contribute to the success of the cooperatives. Cooperative networks and linkages refer to the organizations and institutions that provide technical, financial, logistical and other support to the cooperatives. The organizations and institutions could be local or international or could be coming from the public or private sector. In the case of the cooperatives organized under the 1996 Peace Agreement, the technical and financial assistance was provided by the UN-funded Act for Peace Program and its partner organizations. The Program provided the avenue to link the cooperatives to external organizations and partners, which provided the support and the seeds to realize the cooperatives' community aspiration.

The project-based cooperatives, on the other hand, relied on the political connections of the concerned families with local decision- and policy-makers to ensure that technical support was provided in their undertakings. The networks and partners of these cooperatives are normally connected through the local government and regional agencies. In turn, the LGUs and the agencies linked the cooperatives to their own partners so that they could provide the support to the cooperatives.

3) Factors behind Failure of Cooperatives

The failure of some cooperatives in the region can be attributed to a few reasons, such as poor management, natural calamities (e.g., floods), and a decrease in the spirit of cooperation among

⁴² Another view is that this is the result of a lack of public service delivery in the area. Normally, the poor families have nowhere to ask for financial assistance.

members. The project-based cooperatives tend to create the dole-out mind-set, which reduces the motivation of members to voluntarily contribute to the operation of the cooperative. Without a project and assistance from agencies or the local government, members tend to forget their responsibility, including attendance in meetings and contributions to capital build-up. Lack of clear basis of unity and organizational development is also manifested in the non-participation in cooperative activities and capital accumulation and savings.

4) Lessons Learned

Cooperatives can become successful if they utilize the economic resources of the community (seaweed, rice, corn), and are given technical assistance to improve productivity and efficiency. In addition, backward and forward links should be established to ensure that institutional markets and networks are integrated into the production processes of the cooperatives. Community vision, goals and aspirations contribute to creating cooperative cohesion and development, which suggests that the assistance should not only be focused on the economic activities, but also toward community development in general.

Cooperatives can become an LGU partner in local governance. In the case of the municipalities of Datu Odin Sinsuat and Parang, the cooperatives can be an effective LGU partner in the Municipal Development Council (MDC). The participation of the cooperatives in the development council is an avenue whereby they can articulate and integrate their agenda into formal government programs and policies. Providing transparency in cooperative operations helps strengthen the organizational maturity of the cooperatives. Thus, assistance should be continued in the areas where cooperatives can further innovate in transparency and participation.

Capacity development programs should be continuously pursued and provided to all the cooperatives. Continuous awareness-raising programs on the importance of community actions in economic development and social transformation encourages cooperative members to understand the nature of operations and the services of the cooperative. Technical assistance by the line agencies helps strengthen accountability and dialogue between the government and the cooperative sector. LGUs should be assisted in developing technical and capacity-building programs that are practical and can be implemented in the short and medium term.

3-4 LGU-Led Activities

(1) Public-Private Partnership

The model for public-private partnership is best demonstrated by the municipalities of Upi and

Datu Paglas in Maguindanao, with Upi Agriculture Ventures Corporation and the various companies operating banana plantations in Datu Paglas, respectively.

1) Upi Municipality

The Upi Agriculture Ventures Corporation is registered with the Securities and Exchange Commission (SEC) with Php 25 million in stocks. It was registered in 2009. The ventures corporation was organized principally to undertake various types of agriculture processing and trading in the municipality of Upi. Its first major undertaking is the production of organic fertilizer. The corporation is a result of the implementation of the LED program of the LGU of Upi, to which the CIDA-LGSPA provided technical assistance and is a model for local government and private-sector partnerships in that it jointly invests in a corporate project for the production of halal fertilizers.

It is debatable whether the local government is directly engaged in investing in a corporation with its private sector partners. The Upi municipality has adopted this strategy promoted by the CIDA-LGSPA since no one from the private sector has the capacity and willingness to invest in the identified industry. With the LGU funds, the Upi municipality was able to mobilize and organize groups such as a farmer's cooperative, associations, the corn traders, and financiers in the halal fertilizer production ventures. This was a major step towards realizing industry development in the municipality.

2) Datu Paglas Municipality

The Datu Paglas municipality is known as one of the few places in the ARMM which succeeded in its economic transformation led by its outstanding leader, the former mayor Datu Ibrahim Paglas, Jr. Exercising his leadership and authority as mayor from 1988-97, he succeeded in inviting major corporations from Italy, Saudi Arabia and the USA to invest in the La Frutera banana plantation in 1996. He took firm steps to halt the spiral of violence in his area, and persuaded MILF commanders to disarm and reintegrate in society. Within four years, Paglas brought an Israeli engineering firm to provide ex-combatants with irrigation technology in the area. La Frutera then broke the world record for the heaviest bunch of bananas. In 2001, it exported 5.3 million boxes of bananas to China, South Korea, the Middle East and Japan.

Another investor in Datu Paglas is ARDEXCOR (Alip River Development and Export Corporation), which invested in banana production for the export. The decision of ARDEXCOR to invest in Datu Paglas was the result of the strong leadership of the mayor. With his support and leadership, ARDEXCOR was able to locate and negotiate for the use of 1,300 hectares of land for its banana plantation. The company just had to discuss and agree with the mayor on the use of the land. Peace and order in the area is also guaranteed by the LGUs to the company. In

fact, the plantation company has employed ex-combatants.

The incentives that the investors can obtain in the ARMM include tax incentives and access to an inexpensive supply of labor compared to other regions. As a pioneer industry, the company was able to avail itself of the six-year income tax holidays as a registered company under the RBOI. Other fiscal incentives enjoyed by the company are a reduction in duties for its importation of capital equipment, exemption from taxes and duties on imported spare parts, exemption from wharfage dues and export tax, duty, impost and fees. The Datu Paglas Municipality is also strategically located in the nearby ports of General Santos and Davao, which easily serve the requirements of the company for the export market.

The investments by the company generated employment for over 800 employees from the municipality. The company has also contributed to the improvement of revenue generation for the municipality and the development of allied industries such as trucking and storage services. With people employed, community enterprises also flourished.

The Datu Paglas model demonstrated that leadership could be exercised not just in the political arena but also in the economic sphere. From the viewpoint of a private company, the decision to invest in the municipality is not complicated, as the company has to agree only with the mayor. For his outstanding effort, Mayor Paglas was awarded the Ten Outstanding Young Men (TOYM) of the Philippines in 1999 and the nationwide Ernst & Young Entrepreneur-of-the-Year (EYEOY) Award in 2006.

(2) LGU Alliance (from a regional perspective)

Inter-LGU alliance is a relatively new development in the ARMM. LGUs in the ARMM have not shown the strong political and organizational maturity to be able to share limited resources among LGUs and address common concerns. Even the mandated LGU Leagues have not been a player shaping the governance landscape of the region.

1) Southern Ligawasan Alliance of Municipalities (SLAM)

In 2008, the Southern Ligawasan Alliance of Municipalities (SLAM), composed of the Datu Paglas, Paglat, Sultan sa Barongis and Gen. SK Pendatun, was officially organized⁴³. The idea of the four LGUs working together as an Alliance began in 2007 during the LGSPA Leadership Development Course that showed the success of the PALMA Alliance⁴⁴. Inspired by the

⁴³ SLAM is the latest LGU alliance in the ARMM. Before that, with the assistance of CIDA, seven alliances were established in the ARMM, including Tawi-Tawi Alliance of Local Authorities (TALA) and Metro Kutawato Development Alliance (MKDA).

⁴⁴ The PALMA alliance project Kabalikat Infrastructure Project was awarded as the top trailblazing program of the Philippines in 2009, awarded by the Galing Pook Foundation.

PALMA's achievements mainly through its systematic organizing and pooling of resources for road construction projects, Mayor Langkuno of the Paglat municipality took an initiative to work together with three other LGUs whose mayors are related in a similar manner as the PALMA Alliance. With LGSPA assistance, an orientation, study tour and planning sessions were conducted for the SLAM Alliance with the coaching and mentoring support of the PALMA Alliance. The mayors realized that forming the Inter-LGU Alliance can facilitate implementation of common development concerns through resource and expertise sharing.

With the support of the LGSPA, the alliance organized its management structure, including its Project Management Office (PMO) headed by the MPDC of Datu Paglas municipality, and initiated pooling of resources to start their own road construction initiatives⁴⁵. The SLAM Alliance formalized their common bond with the formulation of the SLAM development plan consistent with the respective CDP-ELA of the member LGUs⁴⁶. In 2009, the SLAM Road Rehabilitation Project had completed several road improvement projects in the member LGUs benefiting several barangays. With improved road conditions, transporting of farm products from these barangays has become easier and more affordable. The SLAM has also expanded its operation to include health development⁴⁷.

2) The Iranun Development Council

In 2002, the Iranun Development Council (IDC) was organized by the municipalities of Barari, Buldon and Matanog, where the Camp Abubakar Complex of the MILF is located. The organization of the IDC was prompted by the all-out-war waged by the Philippine government against the MILF in 2001 at Camp Abubakar, which affected the Matanog, Buldon and Barira people. An alliance was formed to enhance peace and development efforts in the Iranun-dominated municipalities. With the subsequent participation of the municipalities of Parang and Datu Blah Sinsuat, the IDC include five LGUs comprising the so-called Iranun province, which is populated mostly by the Iranun tribe.

⁴⁵ To support its operations and projects, each of the LGU has agreed to contribute Php 25,000 per month.

⁴⁶ The PALMA alliance project of the Kabalikat Infrastructure Project was recognized as the top trailblazing program of the Philippines in 2009, awarded by the Galing Pook Foundation. Among the goals defined by the Alliance are: i) strengthen the organizational capabilities and mechanisms of the Alliance; ii) improve the health condition of the communities of the Alliance; iii) put in place adequate infrastructure support facilities and equipment; iv) enhance the economic condition of the alliance members through environment-friendly agro-industrial practices; v) strengthen the involvement of stakeholders through responsive participatory governance; vi) improve the culture of peace and empower communities through improved quality of education; vii) establish a balanced ecosystem through conservation and protection of natural resources.

⁴⁷ The Zuelleg Foundation assists the health development program. Both the infrastructure and health development projects of the SLAM are seen as triggers for agriculture and industry development in this part of Maguindanao.

The IDC has embarked on the Iranun Rescue Assistance 511 or IRA 511 patterned after the country's most effective emergency action center, called Davao City's 911. The IRA 511 is part of IDC's community service to address the problem of emergency response by the five town members. The IRA 511 also involves the Armed Forces of the Philippines, the Philippine National Police, the Department of Health, the National Disaster Coordinating Council, and the National Telecommunications Commission. To date, the IDC has brought about infrastructure developments with day-care centers, low-cost housing and farm-to-market roads, multi-purpose buildings and livelihood programs.

The IDC is focused not only on the economic development of the Iranun community, but on the peace and security of the member towns. The IDC decided to create a Supreme Council that would address the problem of *rido*, a common occurrence in Muslim communities all over Mindanao, and other security threats. The Supreme Council, composed of respected political and religious leaders in the five member towns, acts as a mediating body to resolve conflicts between municipalities, barangays and even armed conflict between the MILF and the government of the Philippines.

The ARMM Government has welcomed the recent developments in the IDC. Department of Agriculture and Fishery-ARMM allocates regular annual funds. The regional government and the IDC are pursuing a development partnership particularly in the area of the Polloc Port in Parang as a free-port-zone. In 2009, the government declared the Polloc Port a free port and the whole barangay of Polloc an economic zone and Polloc becomes a tariff-free territory.

Although partnership agreements have yet to be formalized, both the regional government and the IDC see the potential of the Polloc Port as an undertaking that could trigger local economic development in this part of Maguindanao, particularly the Iranun municipalities. The IDC is planning to make the Polloc Port their gateway to the world. At present, the Polloc Port serves as a port connecting to the Superferry vessels navigating from Manila. Officials revealed that investors inside the Subic Bay Free Port are now eyeing possible investments in the port and a Korean car manufacturing company has reportedly expressed interest in investing in the area.

3-5 Donor Support

(1) Local Governance Support Program in the ARMM (LGPSA)

The LGSPA support of industry promotion was implemented through the Local Economic Development Program (LED). Anchored on a capacity development strategy, the LGSPA

defines LED as “the process by which actors within localities work collectively with the result that there are improved conditions for economic growth, employment generation and quality of life for all.” The overall objective of the LED is to improve the overall quality of life by providing opportunities to increase incomes, generating new jobs, strengthening local governance and increasing cooperation among local economic development stakeholders including the LGUs, private sector, Civil Society Organizations (CSO) and communities.

The implementation of the LED activities was integrated in the DTI’s OTOP program. The LED process was conducted in two tracks. First is the LGU level, where the DTI introduced the LGU-facilitated LED model to eight municipalities. One of the models adopted is the Business Development Center (BDC) established by Upi LGU. The LED process was integrated into the other LGSPA capacity building program such as the Local Agriculture Development (LAD) program where enhancements to agricultural extension service delivery support 53 LGUs and key commodities, namely high value vegetables (potato), rubber, fruit trees, grains, and freshwater fish. The second track of the LED is at the regional level, where the enabling environment is established. The priorities concerned support for the implementation of the Regional Economic Zone Authority (REZA), consolidation of entry and exit rules of all agencies operating in Polloc Port, the strengthening of the halal industry as an economic niche for the region and the establishment of a credible and science-based halal regulatory and certification system.

Key lessons learned from LGSP II and LGSPA-LED are addressed below. They include the factors that contribute or hinder the successful implementation of the LED process and strategies that were found to be effective and those that were not⁴⁸. These key lessons are:

- The prospects of community wealth creation are the major ‘selling point’ that has motivated LGUs and stakeholders to buy into and commit to the LED process.
- LED success and sustainability rest on a strategic and planned approach.
- There is not one exclusive approach by which LGUs can facilitate LED since the duplication of initiatives is rarely successful. Each locality is unique and LGUs are themselves entrepreneurial and innovative.
- LED gains credibility when planned initiatives are immediately carried out.
- LED gives focus and direction to other programs run by the local government.
- The benefits of LED can be effectively reaped when the partnership between the local government and the community translates into concrete and day-to-day actions reflecting

⁴⁸ “LGSPA (2009) Strategic Local Economic Development: A Guide for Local Government,” LGSPA, Davao City, the Philippines.

the principles of participation, responsiveness, equity, accountability and transparency throughout the process.

(2) Growth with Equity in Mindanao (GEM)

GEM (Phase Two) involves the Business Growth Component, which consists of: i) Business Support Organization (BSO) Development, ii) Target Commodity Expansion Project (TCEP), and iii) exploratory investments in key industries. The key strategy of the GEM is to strengthen capacities of stakeholders who are identified as key players in the value chain for specific commodities. In this regard, GEM assists potential farmers and fishermen in order to achieve a successful case that will be replicated by others.

For BSO, GEM identified and increased the effectiveness of selected BSOs with a focus on the following: i) assisting chambers of commerce that have not yet received USAID support, ii) assisting BSOs working in the tourism, aquaculture, and BPO sectors, iii) assisting chambers of commerce that have received assistance in their advocacy for improved LGU performance in revenue generation, corruption control and improved quality of education, and iv) assisting BSOs to plan and implement strategic events. On the other hand, TCEP helped to triple international exports and domestic out-shipments (volume and value) of targeted commodities like fresh and processed fruit and vegetables, tuna, carrageenan and high-value marine products such as abalone, grouper and sea cucumber.

TCEP also helped to expand warehousing, cold storage and vapour heat treatment (VHT) facilities to support the increased export and out-shipment of targeted commodities, and assisted previously-supported producer associations to improve their competitiveness through training and information on improved production, packaging and marketing. TCEP activities provided selected communities of former MNLF combatants with pre- and post-harvest facilities needed to achieve more profitable farming/fishing, and implemented community development activities for selected barangays in the Sulu Archipelago.

Under the exploratory investment activities in key industries, GEM helped to “jump-start” investment in the two key industries of tourism and business process outsourcing (BPO), and helped to improve the community outreach activities of selected responsible mining firms.

GEM Phase Two strengthened BSOs, increased the out-shipment of major fruits and vegetables to key local and export markets, promoted sustainability of fishery and high-value aquaculture industries, and assisted former MNLF combatants in diversifying into higher value crops. Key

lessons learned include the following⁴⁹:

- Focus on improving the value chain for specific priority commodities.
- Utilize BSOs as anchor-groups for overall industry development and collaboration in policy advocacy with key government agencies and private sector groups.
- Use past successes to generate current credibility with industry stakeholders.
- Be willing to adapt program models to accommodate emerging needs and changing circumstances.

3-6 Assessment of the Different Approaches

(1) National Government-Led Approach

Normally, nationally funded programs come together with financial and technical resources, especially if the programs are included in the Medium-Term Philippine Development Plan. Money from the national budget is adequately allocated to the programs for effective delivery of technical assistance and capacity building support. These programs are also linked to major support groups, such as financial institutions from both the public and private sector. Nationwide implementation of these programs also results in a wider information database of successful undertakings which can be adopted and replicated in the ARMM.

On the other hand, the issues and limitations of the national programs in the ARMM are related to i) lack of budgetary support and ii) lack of technical cooperation among agencies. The budget to implement national programs is not directly provided to the ARMM. Overall supervision of the operation of the ARMM agencies lies with the ARMM Regional Government, not with the line departments of the national government. For instance, if the ARMM Regional Government does not provide sufficient funds for OTOP and other nationally-defined programs, the regional agency such as the DTI would not be able to implement in full the programs in the same manner as the national agencies. The lack of interaction and knowledge sharing between the regional agencies and the LGUs is also observed in the ARMM. More often, national and regional programs that need the support and assistance of the LGUs are not considered as their own programs by LGUs.

(2) LGU-Led Approach

The LGUs in the ARMM are considered to be major players in both the national and regional

⁴⁹ “USAID (2008) Growth with Equity in Mindanao 2 Program: Completion Report,” USAID.

governments' industry promotion programs. LGUs serve as conduits of program implementation on the ground which i) deal with stakeholders, including entrepreneurs and industry leaders, and ii) mobilize communities in the areas. In the regional development of the ARMM, LGUs are expected to initiate and sustain industry promotion programs by integrating them into the local development processes, particularly in planning and investment programming, as shown in the cases of Upi. By doing so, it is expected that industry promotion programs will be provided with budget and administrative and structural support by the LGUs.

On the other hand, a serious constraint on promoting local industry led by the LGUs in the ARMM lies in the fact that industry promotion is simply not a priority concern of many LGUs. It is likely that the LGUs allocate financial resources to infrastructure development projects which help to increase the political capital of the local leaders. Further, the concept and strategy of public and private sector partnerships for local economic and industry development have not yet been developed and understood by the LGUs. This is further strengthened by the general perception of the citizens, who hold the view that the governments provide services and dole. Consequently, poor coordination among municipal leaders, the respective agencies, and citizens is observed.

(3) Private Sector-Led Approach

Private sector initiatives in industry promotion are crucial in local economic development. The private sector is the engine of the local economy. This has been proven with a few outstanding private sector initiatives in the region, such as the palm oil plantation and processing plant in Buluan, and the banana plantations in Datu Paglas and the various corporations in Sultan Kudarat municipality. The private initiatives are effective ways of creating employment opportunities and in improving the overall business and economic prospects of a locality. In the ARMM, one of the important conditions that should be met to set up business is security insurance by the LGUs. In the cases of Datu Paglas and Sultan Kudarat, political leaders who are traditional leaders in the locality have complete control of the areas without any security problems such as kidnapping and land grabbing that are common in the other parts of the ARMM.

On the other hand, the overall capacity of the private sector in mobilizing resources and initiating industry development is still minimal. This is further complicated by the unfavorable business and investment environment owing to the many inter-related problems facing the region, including poor infrastructure, insufficient peace and order, poor market access, the high cost of doing business (transport, power, etc.) and poor governance.

3-7 Social Assessment of Local Industry Promotion in the ARMM

Poverty in the ARMM prevails primarily in rural areas. This is characterized by the limited capacity of the rural poor in the region to chart, control and contribute to local economic development. The limitations of the poor are generally attributed to their limited access to productive resources such as land, capital, technology, financing and market.

Reducing poverty, especially in rural communities such as in the ARMM, is a big challenge. Addressing poverty requires a comprehensive social transformation program to improve the rural communities' access to productive resources and to increase their opportunities for employment. The achievement of this transformation is doubly challenging, considering the conflicts affecting the communities, as they aspire for their right to self-determination. The challenges are not only external factors such as the relationship with the national government. Even within and among communities and among families, there are deeply rooted traditions and concerns that need to be settled through both alternative and traditional approaches, including *rido*.

However, the socio-cultural history, traditions and differences in the ARMM can be an opportunity for better understanding on needs and aspirations of the communities. For instance, traditional natural resources such as the Liguasan Marsh can become an inspiration for leaders to band together and address common issues in their respective communities, as shown by the SLAM Alliance⁵⁰. The strong attachment to and preservation of the cultural roots of the communities can also become a vehicle for good governance and better service delivery, as exemplified by the IDC Alliance.

To achieve a common good, the exercise of traditional leadership role can become an effective tool for mobilizing a community to support a major economic undertaking. This was shown by Mayor Toto Paglas with the banana investments in Datu Paglas, creating employment opportunities in the area. Strong family ties and respect for local leaders also holds together the various small growers in the seaweed production area of Parang, Maguindanao. There are existing models for industry promotion in the ARMM. This would include the traditional industries such as the Tugaya metal craft in Lanao del Sur. Even the traditional trading businesses between the island communities of Tawi-Tawi and Sabah still continue today.

These models and practices can improve current approaches to industry development strategies such as the agribusiness development and the economic zone programs in the region. Agribusiness development and economic zones are traditionally developed with the expectation

⁵⁰ The Alliances are not involved in local industry promotion yet.

that the economic benefits will trickle down to target communities. Another approach is to build up from the grassroots and scale up to industry levels.

3-8 Findings for Appropriate Approaches

Analyzing the results of the case study, recommendations for future intervention are addressed in the following section. The recommendations will be utilized to devise appropriate approaches for local industry promotion in the ARMM in the regional development perspective, considering the social aspects of the ARMM.

(1) Enhanced Involvement of Communities

The success of economic development and industry promotion, especially in the ARMM, needs the collective participation, peaceful co-existence, mutual respect and cultural sensitivity of all people in the region. As such, industry development strategies that promote inclusive growth, nurture and protect the environment, and contribute to lasting peace in the region are the fundamental requirements in this respect. An industry promotion program requires the effective participation of the people to contribute benefits to the rural communities. To do this, it is necessary to strengthen the capacities of the rural poor, which constitute the majority of the populace in the region, to control and manage productive resources in the long run.

To address the long-term economic and industry goals and objectives, in the immediate future the industry promotion strategy should focus on feasible programs that would impact employment and investment generation, improve productivity, and increase government direct participation and stake in industry promotion. Currently, there are ongoing agri-business initiatives that are proving successful and therefore can be continued or improved as necessary. Examples of these are the contract growing programs for selected crops such as banana, pineapple, coffee and cocoa. Also, improved models involving local cooperatives and private business similar to the Agumil Corporation in palm oil can be expanded. These programs contribute to local employment generation, an increase in local taxes and improvements to the overall local business environment in communities.

(2) Building Corporate Partnerships and Public-Private Partnerships

The emphasis on partnerships with corporate partners is intentional. Small growers and farmers are simply at the mercy of the traders in many aspects –from inputs to marketing to processing. This kind of relationship should be changed. Farmers cannot compete with the quality and product standards needed in the market. Government support and subsidies are too miniscule to

make a significant impact in the development of community agriculture enterprises. Therefore, one immediate feasible strategy is to partner with corporations whose social responsibility has been proven beyond reproach. The national government can assist in the linkages and partnership building with these corporations.

The relationship between communities and the business sector will be on an equal footing as partners and co-investors. The partnership should also try to maximize the respective expertise of the partners. Communities can be tapped to supply labor while the corporate partner manages the day-to-day business operations using its technical expertise. Both the private and public sector partnership can be brokered by the national government and the regional government with support from foreign programs. The partnership initiatives can be carried out in existing programs such as the LGU OTOP or in an existing competitive industry in the region such as the seaweed production in the island provinces.

(3) Stronger Enabling Policy

The regional government and the LGUs, apart from building the necessary conducive business environment, can also achieve the goals by prioritizing rural infrastructure projects that would support the development of the partnership between the communities and the business sector. e.g., maintaining peace and order, improving basic service delivery that would improve human capacity and dignity such as providing access to potable water, health and nutrition. The government's rural infrastructure investment can be strategically focused on the requirements of the partnership or investment area. This can be done by reviewing the current 20% development fund allocation of the IRA. Instead of just providing a generic policy on the development fund, the national government and the regional government, through the RLA, can instruct local governments to allocate specific amounts for infrastructures needed by industries.

Both the national government and the regional government can also be tasked to design additional incentives for private sector investment in conflict-affected areas and in the poorest provinces, such as the ARMM provinces. These incentives could include greater access to loan programs with better terms and packages which the national government can facilitate together with government financial institutions such as the Development Bank of the Philippines (DBP) and the Land Bank of the Philippines (LBP).

The initiatives in the immediate future should provide new perspectives in social relationships and cohesion, address unemployment problem, provide income opportunities and improve the business environment in the region. The most important thing is that all stakeholders (national government, regional government, LGUs, private sector, communities) must work together,

defining their respective roles and implementing the agreed-upon roles. Regarding the activities in the ARMM, the regional government should hold an initiative.