The Door to the Six Industry Clusters in the Bangsamoro Autonomous Region in Muslim Mindanao

DEPARTMENT OF TRADE & INDUSTRY ARMM

JICA

An Investor's Guide to the Business Opportunities in the Six Clustered Industries in the BARMM

Department of Trade and Industry – BARMM
Comprehensive Capacity Development Project for the Bangsamoro (CCDP)
Japan International Cooperation Agency

Copyright © 2019 by DTI-BARMM
All Rights Reserved

Written by
Department of Trade and Industry – Bangsamoro Autonomous Region in Muslim Mindanao (DTI-BARMM)

Supervised by
Daryl I. Valdez
of the
Comprehensive Capacity Development Project
Japan International Cooperation Agency

Table of Contents

Basic Profiles of the Six Clustered Industries in ARMM

The data presented below are basic information on the six industries in ARMM which was piloted for industry clustering. The six industries and their respective pilot provinces are as follows:

1. Abaca Industry Cluster – Lanao del Sur
2. Coconut Industry Cluster – Maguindanao
3. Coffee Industry Cluster – Sulu
4. Oil Palm Industry - Maguindanao
5. Rubber Industry Cluster – Basilan
6. Seaweed Industry Cluster – Tawi-Tawi

Abaca Industry

The abaca plant is indigenous to the Philippines whose warm, wet climate and volcanic soils are particularly suited to its cultivation. It has been grown in the Philippines for centuries, long before the Spanish occupation.

Top Abaca Producing Regions in the Philippines (PhilFIDA Region 9, 2018)	
Bicol Region	37.33%
Davao Region	16.72%
Eastern Visayas Region	12.50%
Caraga Region	10.08%
ARMM Region	10.07%

Today the total area planted with Abaca of the country is estimated at 172,934 hectares and is producing 72,734.71 metric tons of fiber annually (PhilFIDA Region 9, 2018).

Like many other provinces of Mindanao, Lanao del Sur is also ideal for planting high value crops like abaca because of its fertile agricultural lands and good climate condition. Abaca as an indigenous plant in the country has been part of the agricultural commodities in the province.

In terms of yield, the Autonomous Region in Muslim Mindanao has the highest volume for the past 10 years, averaging at around 718 kilograms per hectare annually. This was followed by Davao Region with 509 kilograms; Bicol region with 455 kilograms; and, Eastern Visayas with 358 kilograms.

Distribution of Area planted, Number of Farmers, Volume of Production per Province in ARMM (PhilFIDA Region 9, 2018)

Provincial/City Offices	Abaca Areas as of December 2018			Number of Farmers Involved		FIBER PRODUCTION (Kg)
	Productive Area	Unproduc-tive Area	Total	Individ-ual	Group	
Basilan	47.5	34.2	81.7	21	3	12,959
Lanao del Sur	1,670.53	49.97	1,720.50	1330	7	3,293,037
Maguindanao	287	17	304	2	4	24,020
Sulu	4,075.21	-	4,075.21	2,170	-	1,905,675
Tawi- Tawi	0	0	0	0	0	0
TOTAL ARMM	**6,080.24**	**101.17**	**6181.41**	**3,523**	**14**	**5,235,691**

Abaca Industry Players

Value Chain	Name of Industry Player	Role/Function
Input Supplier	PhilFIDA Region 9	The mandated agency on fiber industry provides mostly the seedlings to farmers in the province
Producer	1. Pindolonan Abaca Farm Producer Cooperative: Pindolonan, Calanogas, Lanao del Sur 2. Bayanihan Farmers Services Cooperative: Pindolonan Piagapo, Lanao del Sur 3. Upper Itil Illana Bay Agro Marketing Cooperative: Upper Itil, Balabagan, Lanao del Sur 4. Romagondong Agri Aqua Marketing Cooperative: Romagondong, Marogong, Lanao del Sur 5. Palao Farmers Livelihood Producer Cooperative: Palao,Bayang, Lanao del Sur 6. Singcara Cairan Farmers Producer Cooperative: Singcara, Lumbayanague, Lanao del Sur 7. Lumbac Salimbago Farmers Producer Cooperative: Tagoranao, Calanogas, Lanao del Sur 8. Panggaw Calalanuan Agri Marketing Cooperative: Calalanuan, Calanogas, Lanao del Sur 9. Balintad Farmer Abaca Producer Cooperative: Balintad, Madamba, Lanao del Sur 10. Tambac Community Association, Inc.: Tambac, Calanogas, Lanao del Sur 11. Ganassi Panggawalupa Farmer Cooperative: Panggawalupa, Ganassi, Lanao del Sur 12. Mangodadatu Farmers Cooperative: Sitio Liang, Kapatagan, Lanao del Sur 13. Bagoingud Farmers Progressive Producers Cooperative: Gadungan, Ganassi, Lanao del Sur 14. Piagapo Minombao Small Coconut Farmers Producer Cooperative: Piagapo, Lanao del Sur 15. Maguing Farmer Marketing Cooperative: Balintao, Maguing, Lanao del Sur 16. Kalilintad Organization Inc.,: Ngingir, Calanogas, Lanao del sur 17. Philippine Islamic Social Progress Agency Inc.,: Picotaan, Binidayan, Lanao del Sur 18. Fajron Jadeed Multi Purpose Cooperative: Pantar, Madamba, Lanao del Sur 19. Uyaan Proper Farmers Producer Cooperative: Uyaan Proper, Madamba, Lanao del Sur	Farmers cooperative in the province produces mainly abaca fiber. They are also capable of stripping their own fibers before selling it to local traders or consolidators

Value Chain	Name of Industry Player	Role/Function
Traders	Al-Fahad Abaca Enterprises	Caters to smallholder growers that are far from the processors. Some consolidators have the capacity to pay in cash directly to the farmers. Traders are also certified classifiers by the PhilFIDA
Processors	NewTech Pulp Incorporated	Purchase Abaka fiber from certified classifiers by PhilFIDA
Enablers	PhilFIDA Region 9	Mandated Agency in the development of abaca industry. They provide input materials, technical assistance and other post-harvest facilities
	DTI-ARMM	Mandated agency in the promotion and marketing of the industries through capacity development and value addition.
	MSU Marawi City	Provides technical assistance in the development of the industry. They were in charge on the research and development of the planting materials.

Development Initiatives for the Abaca Industry in ARMM

Program	Description	Beneficiary	Implementing Agency
ARMM-Transition Investment Support Program (TISP) (2013)	Provision of SSF to 4 abaca producing municipalities in Lanao del Sur (4 sets of machineries: spindle machine, grass cutter and aluminum sprayer.)	Madamba (2 Coop) Ganassi (1 Coop) Pualas (1 Organization) Ganassi (1 Coop)	DTI-ARMM Lanao del Sur Provincial Office
ARMM Comprehensive Capacity Enhancement Project (AICCEP) (2014-2017) ARMM Market Driven Local Industry Promotion (2017-2019)	• Clustering Abaka Industry related stakeholders • Establishment of Abaca Seed Nurseries • Establishment of High-Density Nurseries • Conduct of series of capability development trainings for cluster members • Conduct of skills training for abaca fiber by-products • Conduct of Market Matching	Pualas (1 Coop)and Calanogas (1 Coop) Malabang (1 Coop), Calanogas (1 Coop), Madamba(1 Coop)	JICA and DTI-ARMM Lanao del Sur Provincial Office
Expansion of Abaca Plantations	Distribution of Abaca seedlings	Cooperatives in Lanao Sur	PhilFIDA IX
Rehabilitation of Abaca Plantations	Technical assistance to Abaca farmers	Cooperatives in Lanao Sur	PhilFIDA IX
Eradication of Pest and Diseases	Provision of pesticides	Cooperatives in Lanao Sur	PhilFIDA IX
Accreditation of Traders	Technical assistance and funding provided	Cooperatives in Lanao Sur	PhilFIDA IX

Industry Needs and Investment Opportunities

Value Chain	Industry Needs
Input Supply	Training and Capacity Development (Provision of Training on Nursery management)
Processing/Production	Training on GAP in abaca producing municipalities Training on Proper Harvesting Training on value adding of by-products
Marketing	Conduct Market Matching
Logistic and Infra support	Provision of Post-Harvest facilities such as warehouses and dryers.

Coconut Industry

The figure at the right shows the total area of hectarage planted with coconut in the country, total number of bearing trees, nut production and export revenue in the year 2016 (Source: PSA).

Coconut production in Philippines, 2016	
Area planed (has)	3.565 Million
No. of bearing trees	339 Million
Nut Production	13.8 Billion
Export Revenue	USD 1.702 Billion

Table 1 below shows the distribution of area planted with Coconuts and volume of production in million nuts per region. Top 5 producing regions in the country are Davao region (XI), Northern Mindanao (X), Zamboanga Peninsula (IX), Calabarzon (IV-A) & Autonomous Region in Muslim Mindanao (Source:PSA).

Table 1. Distribution of Area planted and Volume of Production per Region (PSA 2016)

Region	1,000 has	% share	million nuts	% share
CALABARZON	485	13.6	1,517	11
MIMAROPA	215	6	759	5.5
BICOL	454	12.7	1,081	7.8
Other Luzon	56	1.6	219	1.6
LUZON	1,210	33.9	3,576	25.9
Western Visayas	75	2.1	311	2.2
Eastern Visayas	320	9	1,073	7.8
Central Visayas	79	2.2	262	1.9
VISAYAS	474	13.3	1,646	11.9
Zamboanga Peninsula	424	11.9	1,530	11.1
Northern Mindanao	303	8.5	1,802	13
Davao Region	357	10	1,895	13.7
SOCCSKSARGEN	191	5.4	958	6.9
CARAGA	193	5.4	775	5.6
ARMM	**332**	**9.3**	**1,377**	**10**
Negros Island Region	80	2.2	267	1.9
MINDANAO	1,880	52.7	8,604	62.2
TOTAL PH	**3,565**		**14,735**	

Table 2. ARMM Annual Average Volume of Production per Province in 2016 (Philippine Coconut Authority and Bureau of Agricultural Statistics, PCA-BAS)

Region/Province	Coconut Area	Yield/Tree (Nuts)	Yield/Ha (Nuts)	Total Production (Nuts)
ARMM	376,642.95	51	6,408	1,790,255,345
Basilan	49,026.67	12	1,440	18,584,058
Lanao del Sur	86,939.92	78	9,360	566,667,504
Maguindanao	117,074.20	57	6,840	538,257,213
Sulu	69,057.10	85	10,200	555,291,485
Tawi-Tawi	54,545.06	35	4,200	111,455,085

Table 2 above shows the distribution of hectarage planted with coconuts and volume of production per province in year 2016. Among the five provinces in ARMM, Maguindanao recorded the most number of hectarage with coconut, while Lanao del Sur recorded the most number of nut produced. On the other hand, Basilan province recorded the least number of hectarage and volume of production due to the widespread infestation of CSI (The Coconut Scale Insect). But this issue was already being addressed by PCA-ARMM and slowly recovering from the infestation.

Coconut Industry Players in the ARMM Region

Value Chain	Name of Industry Player	Role/Function
Input Supplier	Seedlings Suppliers/Commercial Nurseries	No registered nurseries supplying large numbers of coconut seedlings; only small, occasional suppliers of seednuts, particularly dwarf varieties
	Seednuts suppliers	Coconut seednuts for the PCA planting/replanting program and for farmers' initiatives are sourced from farmers' plantations using PCA-recommended selection procedures
	Fertilizer Suppliers: 1. Artemis Salt Corporation 2. Arvin International Marketing, Inc. Incorporated 3. Modern Time Enterprises, Inc. 4. Roy Agribest Phils. Inc. 5. Fertilizer retailers in Cotabato City, Datu Odin Sinsuat, Shariff Aguak and Upi and South Upi, Maguindanao; Marawi City and Malabang, Lanao del Sur. Jolo and Siasi, Sulu; Bongao, Tawi Tawi and Lamitan City and Isabela City, Basilan	Supplier of Agricultural Grade Salt Fertilizers, Coconut Coir Organic Fertilizer and Complete Fertilizer (14-14-14)
Producers	1. Sta. Clara Agrarian Reform Beneficiaries and Intehrated Development Cooperatives (SCARBIDC), Lamitan City, Basilan 2. Tairan Agrarian Reform Beneficiaries Multipurpose Cooperative (TARBAMC), Tairan, Lantawan, Basilan 3. Limo-ok Agrarian Reform Beneficiaries Cooperative (LARBECO), Lamitan City, Basilan	Supplier of Coconuts

	4. Manggal Agrarian Reform Beneficiaries Development Cooperative (MARBEDCO), Manggal, Sumisip, Basilan 5. Jelmi W. Asanin, Badja, Tipo Tipo, Basilan with a 100-hectare-plantation 6. Upian Agri Pinoy Farmers Producer Cooperative, Darugao, North Upi, Maguindanao 7. Al-Mani Farmers Marketing Cooperative, Guinibon, Datu Badullah Sangki, Maguindanao 8. Orandang Plantation, Orandang, Parang, Maguiondanao 9. Puracan Plantation, Malabang, Lanao del Sur 10. Hofer Farm, Balabagan, Lanao del Sur 11. Baras Cooperative, Matling Lanao del Sur 12. Usman Plantation, Bongo Island, Parang, Lanao del Sur 13. Almura U. Abdurasad, Gulangan, Maimbung with a 100-hectare plantation, Sulu 14. Some 3,299 coconut farmers in ARMM with at least five (5) hectares land area with an aggregate of 23,903 hectares.	
Processors	COCOSUGAR PROCESSORS 1. Upi Agricultural School Farmers Multi Purpose Cooperative, Nuro Upi, Maguindanao 2. Babae, Mabuhay Ka! Pandag Women's Association, Pandag, Maguindanao 3. Barira Agricultural Producers Cooperative, Making, Parang, , Maguindanao (Coco Syrup) 4. Tubig Samin Farmers Producer Cooperative, Tubig Samin, Maimbung, Sulu 5. Batu Batu Buansa Agri Marine Producers Cooperative, Buansa, Indanan, Sulu	Coco Sugar Producers
	VIRGIN COCONUT OIL Organix Solution- Tenorio, Awang, Datu Odin Sinsuat, Maguindanao	Processor of Virgin Coconut Oil Product is shipped to local buyers in Manila
	BUKO JUICE AND BUKO MEAT 1. Ekayen Buko Juice- 12 Pastor Kimpo Subdivision, Cotabato City 2. ACH Corporation- 10 Makakua St., Cotabato City	Buko Juice and Buko Meat manufacturer and distributor
	COCONUT CONDIMENTS/SEASONING 1. Amirson Palapa Iranun- Rosary Heights IV, Don E. Sero St., Cotabato City	Producer of local coconut condiment or seasoning

	COCONUT PEAT-BASED ORGANIC FERTILIZER 1. Badak Multi-Purpose Cooperative Bulod, Gen. Salipada K. Pendatun, Maguindanao	Producer of local organic fertilizer
	FRESH COCONUT COOKING OIL 1. Palanguwak Small Coconut Farmers Organization, Palanguwak, Datu Anggal Midtimbang	Producer of local coconut cooking oil
Traders	COPRA BUYERS/TRADERS- 139 Basilan- 1 Lanao del Sur- 3 Maguindanao- 12 Sulu- 104 Tawi Tawi- 19	Buyers of copra produced by the farmers
	WHOLENUT (DEHUSKED) NUTS BUYERS/TRADERS- 21 Lanao del Sur-9 Maguindanao-11 Sulu-1	Buyers of wholenuts (dehusked nuts) produced by the farmers
Enablers	1. Philippine Coconut Authority Region XIV-ARMM 2. DTI-ARMM/Maguindanao Coconut Industry Cluster	1. Provision of quality planting materials 2. Implementation of PCA Programs and Projects including distribution of quality coconut planting materials, fertilizer, intercropping planting materials, equipment for coconut processing technical assistance and training and facilitation in organization of coconut farmers 3. Strengthening of coconut industry in the province through formation and market linkages

Infrastructure Support

Facility/Item	Location	Service/Capacity
KAANIB Coconut Agro Hub Integrated Whole Nut Processing Plant provided by PCA (infrastructure completed; delivery and testing of equipment on-going	Nituan, Parang, Maguindanao	Wholenut Processing 24,000 nuts/day capacity
KAANIB Coconut Agro Hub Integrated Whole Nut Processing Plant by PCA (Infrastructure 98% completed; delivery equipment scheduled in 2019)	Bugawas, Datu Odin Sinsuat, Maguindanao	Wholenut Processing 24,000 nuts/day capacity
Seven (7) units copra hot-air dryers abd five (5) charcoal kilns)	Marogong, Balabagan and Picong, Lanao del Sur; Kabbon, Pandami, Sulu and Gadung, Barira, Maguindanao	2,000 nuts capacity/unit
Five (5) Charcoal kiln	Gadung, Barira, Maguindanao	3,000 nuts capacity/unit
Bangsamoro Resource Center for Coconut-Based Technologies	Sitio Bubong, Kalanganan II, Cotabato City	Training and Demonstration Center of coconut farmers for coconut processing

Development Initiatives for the Industry

Program	Description	Beneficiary	Implementing Agency
COCONUT FARM PRODUCTIVITY ENHANCEMENT PROGRAM (CFPEP)-2008-Present	1. Planting and replanting with high-yielding coconut planting materials 2. Fertilization of bearing coconut trees 3. Coconut-based farming system through intercropping and livestock integration 4. Coconut Processing	All provinces of BARMM	PCA-XIV-ARMM
FARMERS WELFARE AND INSTITUTIONAL DEVELOPMENT PROJECT-2008- Present	1. Provision of extension services to coconut farmers through training, techno-demonstrations, farm visits and distribution of Information, Education and Communication (IEC) materials. 2. Accreditation of coconut farmers organizations and cooperatives	ALL PROVINCES OF ARMM	PCA-XIV-ARMM
KAANIB COCONUT AGRO HUB PROJECT (2017-2019)	Provision of infrastructure, equipment and capacity building for integrated coconut processing for coconut farmers organizations and cooperatives	MAGUINDANAO	
NATIONAL COCONUT FARMERS REGISTRY SYSTEM (NCFRS) 2017-2018	Enrollment of coconut farmers and farm workers in a database	ALL PROVINCES OF ARMM	
SEEDFARM DEVELOPMENT PROGRAM- 2018-2019	Establishment of provincial sources of selected local and dwarf planting materials funded by PCA	MAGUINDANAO and TAWI TAWI	
ARMM Industry Cluster Capacity Enhancement Project (AICCEP)(2014-2017) Market driven Local Industry Promotion (MDLIP)(2017-2019)	1. Clustering the coconut industry stakeholders 2. Capacity development training of coconut farmers and traders. 3. Establishment of Market-linkage	MAGUINDANAO	DTI-ARMM, PCA-XIV-ARMM; Japan International Cooperation Agency (JICA)

Industry Needs and Investment Opportunities

Value Chain	Industry Needs/Investment Opportunities
Input Supply	» Training and Capacity Development (Provision of trainings on Nursery Management) » Accreditation of Coconut Seedling of Coconut Farmer/ Cooperative Nurseries » Establishment of Organic Fertilizer facility and Demo Farms/ Stations.
Production/ Processing	» Conduct of Farmers Field Schools on Coconut (GAP) » Development/Expansion of Coconut areas (Planting and replanting) » Establishment of Coconut Research Center in the Bangsamoro » Establishment of Village-type Coconut processing plant for smallholder farmers » Provision of Coconut by-product training for Value-Addition » Provision of support to product development of processed coconut food products such as FDA licenses, packaging and labeling, etc. » Establishment of Integrated Coconut Processing Plant in Economic Zone of Bangsamoro areas » Conduct Coconut Forum on effective farming system and intercropping for increased income of smallholder farmers for Poverty Reduction
Marketing	» Conduct Investment Forum for Coconut Industry players » Market Matching/Linking through Coconut Industry Cluster » Annual Coconut Farmers' Congress
Logistic and Infra support	» Provision of post-harvest facilities • Warehouse • Hauler trucks • Water Facilities such as sources of potable water for coconut-based food products processing such as solar-powered water pumps and irrigation facilities for coconut farms • Dryer » Farm to Market Roads linking smallholder farmers to road network for transporting of coconut products

Coffee Industry

The Country's production of Coffee Beans in 2015 is accounted to 36,171 MT per Philippines Statistics Authority (PSA) record. Mindanao is the country's biggest producer accounting for 75% of the total production with Luzon and Visayas share the remaining 25%. Top 3 Producing Regions in Mindanao includes SOCCSKSARGEN, Davao Region and ARMM. Philippine coffee is dominated by Robusta at 69% share, Arabica with 24%, Excelsa with 6% and Liberica with 1%.

Distribution of Area planted and Volume of Production per Region in Philippines

REGION	PRODUCTION (mt)	AREA (ha)
PHILIPPINES	**31,171**	**113,738**
CAR	2,605	6,631
Ilocos Region	40	352
Cagayan Valley	372	2,922
Central Luzon	824	1,957
CALABARZON	1,136	13,409
MIMAROPA	89	933
Bicol Region	148	737
Western Visayas	2,195	9,857
Central Visayas	104	1,702
Eastern Visayas	30	172
Zamboanga Peninsula	504	919
Northern Mindanao	2,718	11,709
Davao Region	5,840	17,344
SOCCSKSARGEN	13,479	26,731
CARAGA	823	4,417
ARMM	5,263	13,946

(Source: PSA, 2015)

Total area planted to coffee in 2015 was 113,738 ha. The top five regions with the biggest planting area for coffee are as follows: SOCCSKARGEN (26,731 ha); Davao Region (17,344 ha); ARMM (13,946 ha); CALABARZON (13,409 ha) and Northern Mindanao (11,709 ha). Of ARMM's 13,946 hectares of coffee plantations, 2,526 hectares are from Sulu.

Distribution of the Area Planted and for Expansion per Municipality in Sulu, 2016

Municipality	Plantation (ha)	Area for Expansion (ha)
Patikul	1,573	53
Parang	226	32
Panglima Estino	160	1
Indanan	114	55
Talipao	107	55
Panamao	65	3
Maimbung	51	32
K. Caluang	55	1
Luuk	45	1
Omar	12	12
Pangutaran	5	0
Lugus	39	0
Pandami	2	0
Pata	2	0
Siasi	60	0
Tapul	10	0
Total	**2,526**	**245**

(Source: Department of Agriculture, 2016)

Industry Players in ARMM

Value Chain	Name of Industry Player	Roles/Function
Input Supplier	Department of Agriculture	Supplier/provider of coffee seeds and fertilizer
	Philippine Coconut Authority	Provide coffee seedlings
Producers / Processors	Kankitap Consumers Cooperative	Planting, harvesting and processing of coffee seeds
	Jadjeera Coffee Producers Cooperative	Planting, harvesting and processing of coffee seeds
	Sulu Coffee Marketing Cooperative	Planting, harvesting and processing of coffee seeds
Traders	Cleopatra Store	Buyer of Ground coffee
	Sincere Enterprise	Buyer of Ground coffee
	Dennis Coffee Garden	Buyer of Ground coffee
Enablers	Department of Agriculture	Provide to support and technical assistance to the farmers/Producers
	Department of Trade & Industry	Provide to support and technical assistance to the farmers/Producers
	Philippine Coconut Authority	Provide to support and technical assistance to the farmers/Producers
	Department of Science & Technology	Provide to support and technical assistance to the farmers/Producers

Sulu Coffee Cluster Association Key Players

Industry Players	Type of Activity	Processing Plant/ Mill/Nursery	Volume of Production (mt)	Area (ha)
Kankitap Consumer Cooperative	Processor/ Consolidator	1 Processing Plant, 1 Nursery	11	7.5
Jadjeera Coffee Producers Cooperative	Processor/ Consolidator	1 Processing Plant, 1 Demo Farm	18	6
Sulu Coffee Mrktg Coop	Processor/ Consolidator	1 Processing Plant, 1 Demo Farm	30	20
Kiyutaan Cooperative	Processor	1 Processing Plant	5	5
Dalmatuan Agri Marine Cooperative	Processor	1 Processing Plant	5	4
Osaha Sin Anak Miskin Association (OSAMA)	Processor	1 Processing Plant	20	15
Marhaban Cooperative	Processor	1 Processing Plant	8	7
Tumangas Multipurpose Cooperative	Processor	1 Processing Plant	12	10
Hidayat Agri-Marine Producers Cooperative	Processor	1 Processing Plant	10	8
Bato Bato – Buansa Agri Marine Multi Purpose Cooperative	Processor/ Consolidator	1 Processing Plant	8	6
Tumantangis Cooperative	Processor	1 Processing Plant	15	12
TOTAL			**142**	**100.5**

Development Initiatives for the Industry

Program	Description	Beneficiary	Implementing Agency
ARMM Industry Cluster Comprehensive Enhancement Program (AICCEP)(2014-2017)	• Clustering coffee industry stakeholders • 2 Nurseries with water augmentation facilities • 1 Demo Farm with learning center • Benchmark to Cavite coffee farm • 2 Farmer Field School Training • 60,000 coffee seedlings	Sulu Coffee Industry Cluster	DTI-ARMM JICA
ARMM Market Driven Local Industry Promotion (MD-LIP) (2017-2019)	• Capacitate Cluster Members • Market Matching • Cupping Session • Training of Trainor on Good Agricultural and Manufacturing Practices (GAP, GMP) • Farmer Field School Training	Sulu Coffee Cluster Association	DTI-ARMM JICA
ARMM Transition Support Porgram (ATISP) 2013	• 2 Roasting Machine • 1 Grinding Machine • 1 Sealer/Packaging Machine • 1 Dehuller • 1 Genset • 1 Solar Tunnel Drier • 1 Solar Tunnel Drier	Sulu Coffee Marketing Cooperative Peoples Alliance for Progress Cooperative	DTI-ARMM DTI-NATIONAL
Bottoms Up Budgeting (BUB) 2017	• 1 Roasting Machine • 1 Grinding Machine • 3 Dehuller/Dehusker • 1 Solar Tunnel Dryer • Technical Training	Talipao, Sulu Coffee Farmers	DTI-ARMM ORG-ARMM
636 Barangay ARMM HELPS 2018	• Renovation of Production Center • 1 Roasting Machine • 1 Grinding Machine • 1 Solar Tunnel Dryer	Jadjeera Coffee Producer Cooperative	DTI-ARMM ORG-ARMM
Municipal Local Industry Development and Investment Promotion Council (MLID IPC)	• Policy support mechanism to Industry development and investment promotion in the municipal level		DTI, Municipal LGU plan as of January, 2019)

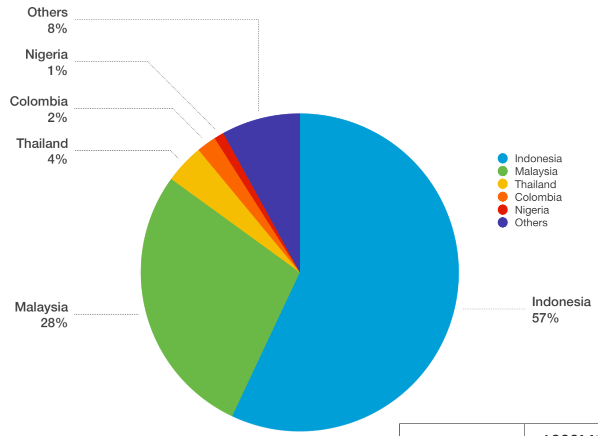
Industry Needs and Investment Opportunities

Value Chain	Industry Needs/Investment Opportunities
Input Supply	Suppliers of: • Certified seeds • Germination boxes • Polyethylene bags
Production/ Processing	Shared Service Facilities such as: • Pulper/Huller Machines • Solar Dryers • Grinding Machines • Moisture Meters • Haulers • Harvesters • Pruning Saw • Sprayers
Marketing	Expansion of production from farmers and presence of more traders and buyers
Logistic and Infra Support	Construction of Farm-to-Market Roads

Oil Palm Industry

The picture at the right shows percentage breakdown of the global palm oil production in metric ton by country in 2016. It shows that among the Asian countries, Indonesia and Malaysia are the top producers that share the 57% and 28% respectively. While the 8% from other source where the Philippines' contribution can be accounted for. It only shows that development of the industry in the country is still limited despite of more than 20 years of advocacy initiated by the private sector through Philippine Palm Oil Development Council, Inc. (PPDCI).

World Palm Oil Production (2016, IndexMundi)



	1000Mt
Indonesia	41,500
Malaysia	20,500
Thailand	2,900
Colombia	1,630
Nigeria	1,015
Others	5941

In the Philippines, Table 1 below shows the area planted with Oil Palm in 2013. Among the major 3 islands of the country, Mindanao recorded the highest percentage wherein Regions XII (SOCCSKSARGEN) and CARAGA has the most area planted with Oil Palm as of 2013.

Table 1. Area Planted to Oil Palm in The Philippines (in hectares), 2013

Region	BAS/PSA Data CY 2013		PPDCI (as of April 2013)	
	Area Planted	% to RP	Area Planted	% to RP
Luzon (Palawan)	5,840.00	11%	6,250.00	9%
Visayas (Bohol)	6,500.00	12%	6,500.00	9%
Mindanao	**41,509.00**	**77%**	**60,710.00**	**83%**
Zamboanga Peninsula	3	0%	800	1%
Northern Mindanao	4,260.00	8%	3,280.00	4%
Davao Region	807	1%	3,500.00	5%
SOCCSKSARGEN	17,125.00	32%	26,470.00	36%
CARAGA	17,374.00	32%	20,160.00	27%
ARMM	1,940.00	4%	6,500.00	9%
Philippines	**53,849.00**	**100%**	**73,460**	**100%**
Source: Philippine Palm Oil Development Council, Inc.				

In table 2 below shows the data recorded on the volume of production in the country in 2013. Fresh Fruit Bunches (FFB) top producing region is still from the Mindanao island particularly SOCCSKSARGEN or Region XII, followed by Caraga and ARMM. Among the top 3 oil palm producing areas, Maguindanao-ARMM had the highest increase in area planted during the 5-year period from 2009-2013 (as seen in the table 3 below). ARMM currently ranks 3rd among the top oil palm producing regions and has one of the largest potential areas for oil palm.

Its average yield per hectare of oil palm fruits, the highest in the country, places it in the same rank with established plantations in Malaysia and Indonesia, the world's leading palm oil producing countries.

Table 2.- Breakdown of FRESH FRUIT BUNCHES (FFB) Production (in MT)
in the Philippines, 2013

Region/Area	Volume (MT)	% to Philippine Production
Luzon	**14,283.27**	**3%**
Visayas	**34,405.98**	**7%**
Mindanao		
Northern Mindanao	35,180.00	7%
Davao Region	2,974.99	1%
SOCCSKSARGEN	143,673.52	30%
CARAGA	136,370.72	29%
ARMM	106,527.73	23%
Philippines	**473,416.21**	**100%**

Significant expansion took place in 2011 and 2012. According to the Mindanao Development Authority (MinDA), of the 959,000 hectares of land in Mindanao identified to be suitable for oil palm plantation, 177,000 hectares of it are already under negotiation for palm oil development. Majority of the areas under negotiation are located in the ARMM and Caraga (Source: Value Chain Analysis and Competitiveness Strategy: Oil Palm, PRDP-IPLAN).

Table 3. Production Trends in ARMM, 2009 to 2013

Indicators	2009	2010	2011	2012	2013	Annual % Growth Rate
Maguindanao						
Volume (MT)	288	664	18,795.20	60,426.75	106,527.73	7378%
Area Planted (ha)	800	805	1,480.00	1,935.00	1,940.00	29%
Average Yield (MT/ ha)	0.36	0.82	12.7	31.23	54.91	3031%

Source: BAS

According to PPDCIs data as of 2017, area planted in ARMM particularly Maguindanao province reached 7,200 hectares, fruit-bearing stage with corresponding production volume of 172,000 MT with more areas for expansion in other provinces of the region.

Prominent Industry Players

Value Chain	Industry Players	Roles
Input Suppliers	Nursery Operators (Seedlings source) ✓ Triple PFarms ✓ Kenram Philippines ✓ EYG Companies ✓ Agumil Plantations Input Providers (Fertilizers, etc.) ✓ Wholesale/Retail companies inside and outside the region	Provide high quality certified seedlings and farm inputs to farmers and government-initiated programs for oil palm development.
Production	Growers/Planters Smallholder-Farmers (PCA-ARMM recipients)	Produce the FFBs from plantations and smallholder oil palm growers
Processor (Millers)	1. Agumil Plantations 2. Kenram Philippines 3. Univanich Carmen 4. AC Garcia Palm Oil Mill	Purchase FFB from farmers and traders and mill them
Traders	Traders/Consolidators	Caters to smallholder growers that are far from the milling plants. Some consolidators have the capacity to pay in cash directly to the farmers.
Enablers	Philippine Coconut Authority	Mandated agency in the development of the palm industries.
	DTI-ARMM	Mandated agency in the promotion and marketing of the industries through capacity development and value addition.
	PPDCI (Philippine Palm Oil Development Council, Inc.)	A conglomerate of oil palm industry players aiming to develop the industry through advocacy through lobbying of policies, capacity development, techno-training, congresses to raise awareness of farmers/ growers and buyers. Also monitors the world market price of FFBs and Crude Palm Oil and keep track of the industry data and information.
	Academe – University of Southern Mindanao and University of the Philippine Los Baños	Research and development not just on the varieties of Oil Palm but also on the pest and diseases management and by-products that can be produced from oil palm.

Development Initiatives

Program	Description	Beneficiaries	Implementing Agency
Advocacy Techno-training on Good Agricultural Production National Palm Oil Congress	Advocacy	-	Philippine Palm Oil Development Council Inc. (PPDCI)
Smallholders Oil Palm Development Project (SOPDP) 2014-2017	Seedling and input dispersal		PCA-ARMM
ARMM Industry Cluster Capacity Enhancement Project (AICCEP) 2014-2017 ARMM Market driven Local Industry Promotion (MDLIP) 2017-2019	• Clustering the industry players • Capacity development training of smallholder oil palm growers • Provision of Shared Service Facilities (SSF) and Market-linkage	Coconut industry players in Maguindanao Province	JICA

Industry Needs and Investment Opportunities

Value Chain	Industry Players
Input Supply	• Oil Palm Nursery Establishment • Training and Capacity Development (Provision of trainings on Nursery Management) • Establishment of Organic Fertilizer facility and Demo Farms/Stations
Production/ Processing	Conduct of Farmers Field Schools on Good Agricultural Practices (GAP) on Oil Palm
	Conduct of Value-adding Training of Oil Palm by-products for smallholder growers
Marketing	• Establishment of/Accreditation of Marketing Cooperatives/ Municipal Oil Palm Growers Association (MOPGA) as Trading Post for FFB from smallholders • Conduct Investment Forum for Oil Palm, Industry players
Logistic and Infra Support	• Provision of FMRs for smallholder growers in Oil Palm producing municipalities • Establishment of loading bays for smallholder growers • Shared Service Facilities (SSF) such as mechanized harvesting tools, hauling equipment, water facilities and dryer for oil palm fronds for handicraft making

Rubber Industry

The Philippines today still remains a minor contributor of natural rubber (NR) in the world market despite the increase in rubber production over the last fourteen (14) years. It only accounts 1% of world production as reported by the International Rubber Study Group (IRSG, 2014), NR Statistic 2014 (Malaysian Rubber Board) and The Rubber Economist Ltd – Quarterly Analysis/Forecast of Industry March 2015, refer Table 1. IRSG is an inter-governmental organization based in Singapore recognized as an international body.

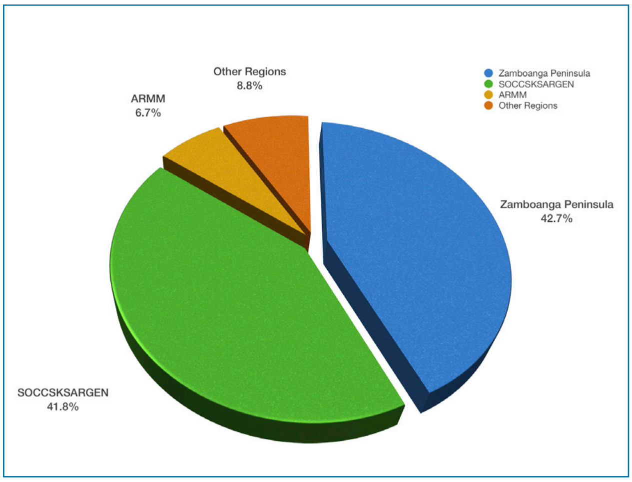
Table 1- World NR Production 2014

Ranking 2014	Ranking 2013	Country	'000 Tons	%
1	(1)	Thailand	4,099.2	34.71
2	(2)	Indonesia	3,141.7	26.60
3	(3)	Vietnam	953.7	8.08
4	(4)	China	857.0	7.26
5	(6)	India	704.5	5.97
6	(5)	Malaysia	655.3	5.55
7	(7)	Cote d' Ivoire	317.3	2.69
8	(8)	Brazil	184.9	1.57
9	(9)	Myanmar	148.3	1.26
10	**(11)**	**Philippines**	**114.9**	0.97
11	(10)	Sri Lanka	102.9	0.87
		Other 15 Countries	*529.30*	*4.48*
		TOTAL	11,809	**100%**

Source: IRSG Report, 1st Qtr. 2015
Malaysian Statistics Report 2014
The Rubber Economist Ltd.– London and Bangkok
Quarterly Analysis & Forecast of Industry, 2015

The top-producing region in 2017 in Phlippines is Zamboanga Peninsula, with its production of 59.03 thousand metric tons accounting for 42.7 percent of the total rubber production of the country. SOCCSKSARGEN came in close with 41.8 percent contribution while ARMM had 6.7 percent share to the national production.

Distribution of NR production in Philippines, 2017



Basilan province covers a large area of rubber production increasing to 48,366 hectares as of December 2017 from 45,307.57 hectares from 2015. The province has a total of 19,346,400 productive trees excluding the number of bearing trees in Isabela City with an annual volume production of 774, 262.91 metric tons.

Rubber Production in ARMM

Location	Rubber Areas (Hectares)			Rubber Production (MT)	
	2014	2015	2017	2014	2017
Basilan	**36,000.00**	**45,307.57**	**48,366.94**	**51,716.00**	**774,262.91**
Lanao del Sur	100			1,028.33	
Maguindanao	2,015.00			1,307.00	
Sulu				-	
Tawi-Tawi				-	
ARMM	**38,115.00**	**45,307.57**	**48,366.94**	**54,051.00**	

Rubber Production Land in Basilan Province

Municipality	Actual Plantation (in hectares)	Projected land area for expansion in hectares
1. Lamitan City	18,951.76	15,000
2.Lantawan	2,023	(No data)
3. Maluso	1,022	(No data)
4. Sumisip	9,059.96	200
5. Tipo-Tipo	1,302	20
6. Ungkaya Pukan	5,142.40	10
7. Al-Barka	5,806.5	(No data)
8. Tuburan	3,289	(No data)
9. Akbar	560	(No data)
10. Hji. Mohammad Ajul	1,209.82	(No data)
11. Resettlement: (MARBEMPCO, AIMARBEMPCO, SARBIDC, BARBEMPCO)	-	200
TOTAL	**48,366.44**	**15,430**

Industry Players

The rubber industry in the Province of Basilan is composed of small growers, rubber-based cooperatives (Agrarian Reform Communities), processors, traders/buyers, privately-owned and corporate plantations and input suppliers. The industry is a mix of old and new rubber trees.

Value Chain	Industry Players	Roles/Functions
Input Suppliers	• PLGU Nursery (21.8 has) • Lamitan City Nursery • DAF-ARMM Nursery • LARBECO Nursery (2 has.) • SCARBIDC Nursery (1.5 has.)	Provides input supplies to rubber growers.
Small Growers/ Farmers	• Lamitan City Federation of Small Rubber Growers Associations, Inc. (LACFERGA, Inc.) • Agrarian Reform Communities (ARCs)	Produces quality rubber budwoods, cuplumps and sell to local traders for processing.
Processors	• United Workers Agrarian Reform Beneficiaries Multi-Purpose Cooperative (UWARBMPC) • EJN Rubber Processing Plant • Marketing Corp. • Pioneer Amaresa Inc. • FARMA • Standard rubber-Development Corp. • Philippine Pioneer Rubber Products Corp. • Mark Bright Corp. • Ozone Rubber, Inc. • MJ Rubber Trading • MBH Rubber Trading	Local rubber processors based in Basilan that provide opportunities to small rubber farmers and cooperatives. Processes field cup lumps to rubber bales or SPR20 and Pale crepes.

Value Chain	Industry Players	Roles/Functions
Traders	Lamitan City Rubber Traders Assoc.	A private group of traders who agreed to consolidate production of small growers to supply outside demand. The flow of market has been limited to domestic buyers, however, concerned agencies have been promoting, negotiating and conducting market tie-up with tire and non-tire manufacturing firms and to other countries for possible export.
Enablers	Lamitan City Rubber Industry Cluster	Promotion and sustenance of natural rubber industry development for inclusive growth and environmental protection and allocate funds thereof and other purposes for Lamitan City
	Basilan Rubber Industry Cluster Council	Promotion and sustenance of natural rubber industry development for inclusive growth and environmental protection and allocate funds thereof and other purposes for the entire Basilan Province.
	DTI-ARMM	Mandated agency in the promotion and marketing of the industries through capacity development and value addition.
	Department of Agriculture	Provides technical assistance and other support to smallholders in the country.
	TESDA-ARMM	Provides technical skills training to rubber growers
Enablers	PLGU/LGU	Provides policy direction in the development of the rubber industry; technical and financial supports to all industry stakeholders; enhancement of rubber technology transfer to rubber stakeholders; Provides infrastructure support facilities for the rubber development and provides availability of technical inputs to interested rubber growers in the province.
	Department of Agriculture, Bureau of Agricultural Research (BAR)	Focal point for DA research into rubber industry and provides institutional home for IRRI.
	Department of Agriculture, Bureau of Plant and Industry (BPI)	BPI has accredited 27 rubber nurseries and budwood gardens throughout the country with high yielding rubber clones.
	Department of Industry, Board of Investments (BOI)	Coordinating agency of technical working groups to overcome industry-binding constraints, it focuses primarily on processing activities. DTI has also engaged with tire manufacturer in Yokohama to increase its local sourcing of rubber.
	Philrubber Technical Working Group	Acts as lead agency to coordinate efforts across value chain, including formation of roadmaps.
	Philippine Rubber Industries Associations (PRIA)	Objectives include variety measures to increase the sector's performance through professional development, knowledge sharing and networking opportunities.
	Philippine Rubber Research Institute (PRRI)	Mandated to initiate and administer research and development (R&D) programs to improve quality of rubber and benefit of smallholder rubber producers and processors. Working with local governments to distribute planting materials to rubber farmers.

Development Initiatives

As the provincial government promises to enhance the rubber sector in Basilan and to efface the image of the province with “Dirty rubber of Basilan”, DTI-ARMM Basilan together with other stakeholders initiated the expansion of LRIC (inclusive to Lamitan City) to BRICC that involves all cities and municipalities in the province. The formulation of Basilan Rubber Industry Roadmap followed and became a tool for setting the clear vision of the Rubber Industry of Basilan Province. Through this, programs and projects as well as activities were identified to further develop the industry in the province.

Program	Description	Beneficiaries	Implementing Agency
ARMM Industry Cluster Capacity Enhancement Project (AICCEP)2014-2017	Executive Order No. 7, Series of 2015, an executive order creating the Lamitan City Rubber Industry Cluster (LCRIC) to promote and sustain the development of Natural Rubber Industry for inclusive growth and environmental protection and allocate funds thereof and purposes within the City of Lamitan.	Lamitan City Rubber Industry Cluster (LCRIC)	DTI-ARMM Basilan, CLGU, JICA
	Profiling of Core Members of the LCRIC Team	LCRIC	DTI-ARMM Basilan, CLGU, JICA, LCRIC
	Prepared Lamitan City Rubber Industry Assessment and Database	LCRIC	CLGU, JICA, LCRIC
ARMM Industry Cluster Capacity Enhancement Project (AICCEP)2014-2017	Local Benchmarking Mission to Zamboanga Peninsula and North Cotabato	LCRIC	CLGU, JICA, LCRIC
	Rubber Production Management Training	LCRIC	JICA, DTI-ARMM Basilan, CLGU, DAF-ARMM Basilan LCRIC
	Enhancement of Tapping Techniques and Rubber Quality Improvement Advocacy	LCRIC	JICA, DTI-ARMM Basilan, CLGU, DAF-ARMM Basilan LCRIC
	Orientation on Quality Management System (QMS)	LCRIC	DTI-ARMM Basilan, CLGU, LCRIC, DAF-ARMM Basilan, JICA
	Local Market Mission	LCRIC	LCRIC, DTI-ARMM Basilan, CLGU, JICA
	Rubber Quality Improvement Program(Distribution of Coagulating Containers)	LCRIC	JICA, DTI-ARMM Basilan, CLGU, DAF-ARMM
	Establishment of Budwood Garden	LCRIC	JICA, CLGU, DTI-ARMM Basilan, DAF-ARMM Basilan
	Distribution of Tools and Farm Inputs	LCRIC	CLGU, DTI-ARMM Basilan, JICA
	Training on Raw Rubber Classification Cum Market Linkage	LCRIC	CLGU, LCRIC, DTI-ARMM Basilan, JICA
DAF-ARMM Counterpart and Support	Distribution of budded rubber seedlings	Provincial Rubber Growers	DAF-ARMM Basilan
	Distribution of Tapping Knives, Coagulating Containers and Nursery Management, Production Technology and Integrated Farming System	Provincial Rubber Growers	DAF-ARMM Basilan

Program	Description	Beneficiaries	Implementing Agency
ARMM Market driven Local Industry Promotion (MDLIP)2017-2019	Formation of Rubber Industry Core Cluster Group	Basilan Rubber Industry Cluster Council (BRICC)	DTI-ARMM, CLGU, JICA
	Executive Order No. 29, Series of 2018, an executive order creating the Basilan Rubber Industry Cluster Council (BRICC) to promote and sustain the development of Natural Rubber Industry for inclusive growth and environmental protection and allocate funds thereof and purposes within the province of Basilan	(BRICC)	DTI-ARMM, PLGU, JICA
	Local Study Mission to North Cotabato	(BRICC)	DTI-ARMM, JICA
	Formulation of Basilan Rubber Industry Cluster Council Roadmap	Rubber growers and all stakeholders	DTI-ARMM, JICA, BRICC
	Establishment on Quality Standard of Rubber Industry in Basilan Province	(BRICC)	DTI-ARMM, BRICC, PLGU, JICA
ARMM Market driven Local Industry Promotion (MDLIP)2017-2019	Advanced Training on Rubber Tapping for TM Certification	Rubber Farmers in Sumisip	DTI-ARMM, BRICC, PLGU, JICA
	Distribution of Coagulating Containers for rubber	Rubber Farmers in Sumisip	DTI-ARMM, BRICC, PLGU, JICA
House Bill (HB) 2912	An act to develop the rubber industry, establishing for the purpose the Philippine Rubber Industry Development Board, defining its powers and functions and appropriating funds thereof," awaiting to be passed.	Rubber Industry Stakeholders	
Industrial Forest Plantation (IFP) based on DENR AO 1999-53)	Industrial tree plantation is among the special laws listed in the Investment Priority Plan (IPP). This covers extensive plantation of forest land of tree crops (including timber and non-timber species such as rubber, bamboo, rattan, etc., except fruit trees) for commercial and industrial purposes.	Rubber Industry Stakeholders	
RA 10089	An act creating the Philippine Rubber Research Institute to develop the Philippine Rubber Industry and for other purposes.	Rubber Industry Stakeholders	

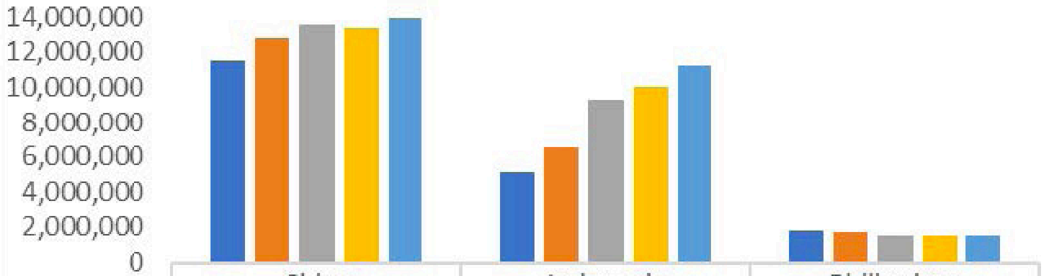
Program	Description	Beneficiaries	Implementing Agency
High Value Crops Development Program (HVCDP)	Program is designed to work closely with private sector, particularly smallholder and farmers. Through the provision of extension services, goals include food security, expansion of private sector investment and income as well as improved production techniques. Rubber is a priority commodity.	Rubber farmers and stakeholders	Department of Agriculture
Training Regulations on Rubber Production NC II and Rubber Processing NC II	Rubber production, new tapping techniques and processing trainings	Rubber farmers/ tappers	TESDA
Infrastructure Support Facilities	Technical inputs shall be made available to interested rubber growers in the province (e.g. high yielding clones, fertilizers, village type processing plants, high grade processing plants, farm to market roads, port expansion including water system development).	Rubber growers and other stakeholders	PLGU

Industry Needs and Investment Opportunities

Value Chain	Industry Needs
Input Suppliers	Establishment of Centralized Budwood Collection Nursery of the Provincial Government for the distribution of high yielding clones to rubber farmers in the province.
Production	Production of Quality Rubber Budwood for distribution in the province. Expansion of potential areas for rubber Provision of post-harvest facilities and SSF to rubber farmers
Processing	Establishment of high value processing plants with ISO certification Establishment of village type processing plants in municipalities
Marketing	Local and foreign trade missions Rubber Investment Forum
Logistic and Infra Support	Provision of Farm-To-Market Roads and Post-Harvest Facilities

Seaweed Industry

World seaweed production has now reached 29.4 million metric tons in 2015. Figure 1 shows that 47% of global seaweed production comes from China. This is equivalent to 13.9 million metric tons of seaweeds. Indonesia is the second largest producer of seaweed, contributing 38% or 11.3 million metric tons of global production, while the Philippines is now third, contributing 1.6million metric tons of seaweed production (FAO 2016).



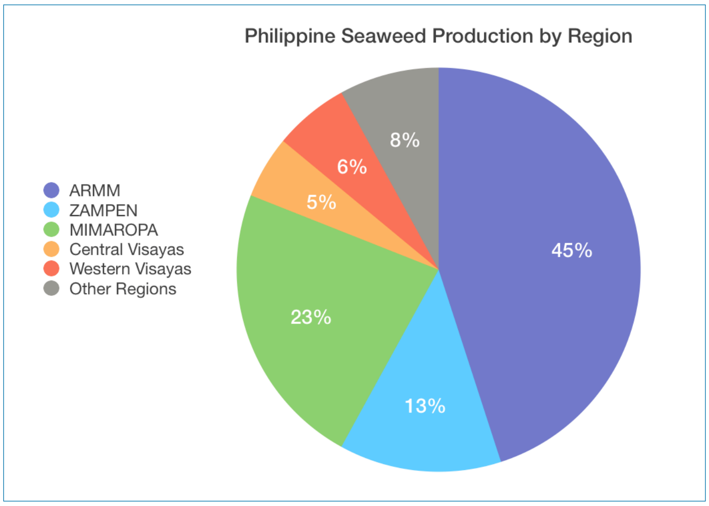
	China	Indonesia	Philippines
2011	11,549,555	5,170,201	1,840,833
2012	12,832,060	6,514,854	1,751,071
2013	13,561,445	9,298,474	1,558,378
2014	13,326,315	10,076,992	1,549,576
2015	13,924,535	11,269,341	1,566,361

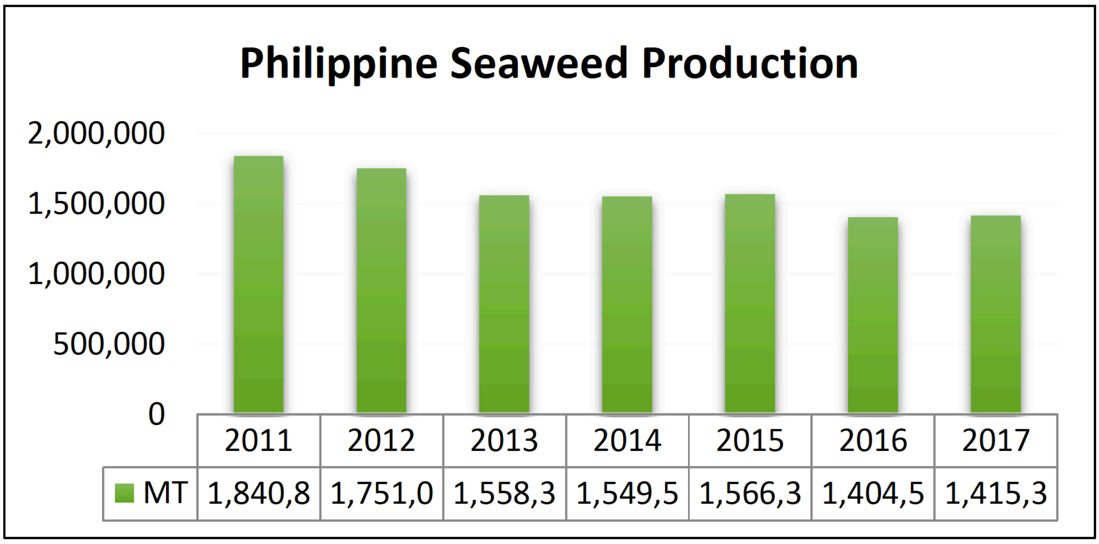
Figure World's TOP 3 Seaweed Producers

The Philippines ranked second in 2003 to 2006, producing 9-10 per cent, after which it was overtaken by Indonesia in 2007 (FAO 2014). Indonesia also accounts for 65% of the coral triangle seacoast, which has been identified to be highly suitable for seaweed production.

The most important farmed seaweed species is Eucheuma (10.2 million tons in 2015), followed by Japanese kelp or Wakami (8 million tons), Gracilaria spp. (3.9 million tons), Undaria spp. (wakame) (23 million tons), Kappaphycus (1.8 million tons), and Porphyra spp (nori) (1.2 million tons). China produces mainly the kelp Laminaria Japonica while Indonesia and Philippines focused on Eucheuma spp, Kappaphycus spp, and Gracilaria spp from which carrageenan and agar can be extracted (FAO 2016).

The Philippine has an available farmable area of 500,000 hectares for deep-sea and 200,000 hectares along coastline. Out of this total coastline potential areas only 60,000 hectares are being farmed and utilized. This total provides for the livelihood of up to 200,000 families (SIAP 2017). Philippine seaweed production reached the highest point in 2011 at 1,840,833 metric tons but dwindled during the next three years because of the highly intensified nature of the farming system, and subsequently disease-related issues. By 2017, seaweed production reached to 1,415,320.79 metric tons which marked a .77% increase from 2016 production accounting to 1,404,519.23 metric tons (countrystat/PSA).





The top three seaweed producing regions in the country are as follows: the ARMM contributing to 640,593.44 MT or equivalent to 45%, whereas MIMAROPA accounting to 325,915.74 MT or 23%, and finally Zamboanga Peninsula contributing about 182,562.44 MT or 13% (countrystat/PSA).

	Production (MT)				
Province	2013	2014	2015	2016	2016
Tawi-Tawi	294,595.80	304,999.84	305,902.71	298,433.53	321,739.82
Sulu	218,694.08	220,439.61	222,835.20	223,074.78	223,991.25
Basilan	6,488.13	6,628.61	6,478.10	856.48	1,088.58
Maguindanao	89,386.54	90,927.55	92,219.48	90,809.49	93,773.78
Lanao del Sur	-	-	-	-	-
Source: BFAR-ARMM Fisheries Profile					

Tawi-Tawi is the largest seaweed-producing province both in the ARMM and the country with a total production of 321,739.82 metric tons as of 2017 or constituting 50% and 23%, respectively of the regional and national production. Since its discovery, it became the major industry of the province and has grown to be the most dependable source of income and livelihood for fisherfolks of the ten (10)-seaweed producing municipalities of the province. The province has only eleven (11) municipalities. Moreover, Tawi-Tawi is also known as the best source of quality raw dried seaweed which produces the Philippine Natural Grade (PNG) carrageenan, considered to be the world's best commercially used carrageenan.

The five provinces of ARMM consisting of Maguindanao, Lanao del Sur, Basilan, Sulu and Tawi-Tawi recorded a total existing production area of 69,303 has. with an existing potential farmable area of 26,359 has. Of the above total, the island-province of Tawi-Tawi emerged as the single biggest seaweed producing area with a total existing production area of 62,911 has. and potential farmable area of 22,024 has. or roughly 91% and 83%, respectively of the total regional production areas.

However, geographic information system (GIS) studies have revealed that, if seaweed farming were expanded to a depth of 15 m in Sitangkai, Tawi-Tawi - about 102,885 has. would be available for expansion. These estimates are indicative of the large potential for further industry growth in this part of the province (Hurtado 2013).

Existing and Potential Farm Area				
Province/ Municipality	Area (in hectares)			
	Existing		Potential	
Tawi-Tawi		62,911		22,024
Sibutu	5,562		2,727	
Sitangkai	34,197		5,695	
Panglima Sugala	7,449		2,356	
Bongao	197		351	
Simunul	531		4,756	
Sapa-Sapa	4,700		1,500	
Languyan	1,200		1,027	
South Ubian	4,500		1,551	
Tandubas	4,500		1,561	
Mapun	75		500	
Sulu		5,621		3,893
Basilan		435		350
Maguindanao		336		92
Lanao del Sur		-		-
		69,303		26,359
Source: BFAR-ARMM Fisheries Profile (2016)				

Industry Players

Value Chain	Industry Players	Roles/Functions
Input Suppliers/ Providers	There are 12 hardwares operating in the province per BNR with DTI-ARMM Tawi-Tawi as follows: 1. Phanies Hardware 2. Delia's Fishing Supply 3. New Alem's Enterprise 4. Hapi Hardware & General Merchandise 5. Bongao Hardware Enterprise 6. Uniline Hardware 7. Myka Hardware 8. Lucky Hardware 9. Denmark Fishing Supply 10. Al-hussin Hardware 11. K.A.F Hardware 12. My Home Hardware	• Provides/ supplies farm inputs such as seaweed farm implements and other supplies related to farming and production of seaweed
	• Growers and nurseries operated by farmers-coop/ associations	• provides seedlings
Production	• There are 22,681 registered seaweed farmers under FishR Program of BFAR-ARMM as of May 2018 • Per CY 2018 record, there are 44 seaweed farmers cooperatives in the province registered with the Cooperative Development Authority (CDA-ARMM)	• Generally, produces and sells wet seaweed to their fellow farmers for re-seedlings while raw dried seaweed is being sold to the local trader or buying stations and cooperatives.

Value Chain	Industry Players	Roles/Functions
Local Traders/ Buyers	Registered traders/ buyers in the province: 1. Integrated Farmers and Seaweed Traders Marketing Cooperative 2. Buan Seaweed Farmers Marketing Cooperative 3. Swerte Fisherfolks and Farmers Producer Cooperative 4. Kasambuhan ma Ungus-Ungus Association 5. Royal Marketing 6. Ak Seaweeds and Marine Products Trading 7. JJ Trading 8. Isla Seaweeds and Dried Fish Dealer 9. Bongao Fish Trading 10. Aa Seaweeds and Marine Products Trading 11. Shalom Seaweeds Trading 12. Nj Seaweed and Marine Products Trading 13. Wangpi Seaweeds Trading 14. Hats Trading 15. Sitti Bahasa Seaweeds Dealer 16. Hk Seaweed Buyer 17. Abdulkarim Joe Marketing 18. Elmer Kalon Seaweed Buyer 19. Alfaibash Trading 20. Sam & Sheh Trading 21. 230 Seaweeds Buying Stations 22. Reema Seaweeds Trading 23. JR Seaweeds & Copra 24. JR Seaweed & Copra	• Buyers and consolidator of raw dried seaweed within the community. • They usually buy directly from the farmers and local buyer within barangay. • They provide soft loan/ micro-financing to farmers/ growers.
Processors/ Exporters	1. Cargill France Sas 2. Shemberg Marketing Corporation 3. CP Kelco Phils. Inc. 4. Marcel Trading Corporation 5. Marine Colloid Philippines, Inc. 6. LM Zamboanga United Trading 7. CEAMSA Asia Inc. 8. Philippine Bio-Industries, Inc. 9. TBK Manufacturing Corp. 10. W Hydrocolloids, Inc. 11. VW Marine Resources, International 12. MSH Trading And Service Inc. 13. Royal Algaculture Corp. 14. Sitangkai Export Company	• Buyer, exporter and processor of Raw Dried Seaweed (RDS) for carrageenan production
End Market	• commercial and industrial users of carrageenan • consumer of seaweed-based carrageenan by products	• The end user of the industry carrageenan by-products. • Provides information on the market trends, demand, innovation and other useful information of the industry.

Value Chain	Industry Players	Roles/Functions
Enablers	DTI-ARMM	The primary, coordinative, facilitative and regulatory arm of the Autonomous Regional Government on trade and industry activities. It is in-charge in the development of micro, small and medium enterprises. Likewise, it is the leading Autonomous Regional agency mandated in the development and promotion of local industries through Clustering Approach.
	BFAR-ARMM	Agency of the Autonomous Regional Government, responsible for the development, improvement, management and conservation of the country's fisheries and aquatic resources including seaweed
	DOST-ARMM	Mandated in discharging science and technology support to MSMEs and local industries development
	TESDA-ARMM	Mandated to provide quality technical education and skills development to the people in the Autonomous Region
	DAF-ARMM	Agency of the Autonomous Regional Government, responsible in the promotion of agricultural development by providing the policy framework, public investments, and support services needed for domestic and export-oriented business enterprises. It is the primary concern of the department to improve farm income and generate work opportunities for farmers, fishermen and other rural workers.
	CDA-ARMM	Regulate, develop and provide charter to cooperative (tertiary, secondary and primary)
	MSU-TCTO	Mandated to provide the opportunities of quality education to the Muslims and other cultural communities and undertake programs for the sustainable utilization and rational management of the marine and fisheries resources of the Sulu Sea and nearby waters through human resource development, research, and transfer of appropriate technology with the aim of improving the socio-economic conditions of the people in Southern Philippines in accordance with the regional and national goals.
	Seaweed Industry Association of the Philippines (SIAP) The office address is c/o BFAR Regional Office 7, Cebu City	A non-profit organization whose objective is to unite and assist all stakeholders of the industry to attain global leadership in seaweeds and carrageenan.

Value Chain	Industry Players	Roles/Functions
Enablers	Seaweed Industry Cluster	Refers to seaweed cluster piloted in Sibutu municipality and Barangay Buan, Panglima Sugala, Tawi-Tawi. They were organized under JICA AICCEP and MDLIP Industry Clustering Approach Project. With the support of development enabling partners, the cluster leaderships are committed to pursue and sustain development initiatives of seaweed industry through inclusive growth of the community and improve quality of life of the primary sector, the farmers
	Local Government Unit (LGUs)	Refers to barangay, municipal and provincial local government units
	Chamber of Commerce and Industries (CCIs) Organization	There are two (2) CCIs based in Bongao, Tawi-Tawi. For this purpose, the Tawi-Tawi Chamber of Commerce and Industry is the one referred herein because they are on board and particularly involved as member of Seaweed Industry Roadmap-Technical Working Group and as private sector partner in seaweed development in the province
	Civil Society Organizations (CSOs)	Refers to Non-Government Organizations (NGOs) and People's Organizations (POs) engaged in the project and other related seaweed development initiatives. (e.g TCCI, Noorus-sallam)
	Motor Vessels (M/V) 1. Aleson Shipping Line 2. Magnolia Shipping Lines 3. Ever Shipping Lines Motor Launch (M/L) 1. M/L Lady HK 2. M/L Talisay Queen 3. M/L Abdul-aziz Express 4. M/L Arpi 5. M/L Shaira 6. M/L Algenti 7. M/L Basilyn M/L Sea Dayang (6 motor launch)	Transport & Logistic Services - Refers to both local and domestic transport services (both sea and land transport facilities) that cater to the need of local buyers to transport their product from the community to market point of destination

Infrastructure Support

Facility	Location	Service/Capacity
2- units Solar Dryers under 2015 ARMM HELPS Project	Brgy. Buan and Brgy. Balimbing, Panglima Sugala, Tawi-Tawi	Drying Capacity Per Unit: • 6 sacks of wet seaweed per drying period, normally 4 days to get the maximum moisture content • 10-15 sacks of dried seaweed (for re-drying)
Seaweed Post-harvest Laboratory Seaweed Cultivars Laboratory and Facilities	MSU-TCTO College of Fisheries, Bongao, Tawi-Tawi	• Moisture Content of Raw Dried Seaweed • Physical Characteristics of Carrageenan • Propagation of Seedstocks
1.Unit Solar Dyer under National Seaweed Development Program	Brgy. Buan, Panglima Sugala, Tawi-Tawi	Drying Capacity Per Unit: • 6 sacks of wet seaweed per drying period, normally 4 days to get the maximum moisture content • 10-15 sacks of dried seaweed (for re-drying)

Development Initiatives

Program	Description	Beneficiary/ Year Implemented	Implementing Agency
ARMM Market Driven Local Industry Promotion (MDLIP) 2017-2019	• Capacity development of Industry Cluster • Promoting and facilitating market linkage	Seaweed Industry Cluster based in Brgy. Tongsibalo, Sibutu, Tawi-Tawi / 2018 Cluster Local Market Consolidator (LMC) Coops: Integrated Farmers and Seaweed Traders Marketing Cooperative (I-FAST MC) based in Municipality of Sibutu, Tawi-Tawi; and Buan Seaweed Farmers Marketing Cooperative (BSFMC) based in Brgy. Buan, Municipality of Panglima Sugala, Tawi-Tawi. All farmers in the community and the buyers/ processors/ 2018	DTI-ARMM/ JICA/ Industry Cluster
ARMM Industry Comprehensive Capacity Enhancement Project (AICCEP) 2013-2016	• Clustering the industry players • Capacity development of Industry Cluster	Provincial Industry Cluster consist of representatives from LGUs, Seaweed Farmers, Traders, Academe, CSO, and other enabling partners/2015-2017 Areas covered were 3 barangays in Panglima Sugala Municipality namely: Buan, Karaha and Tundon; Brgy. Tongsibalo, Municipality of Sibutu, Tawi-Tawi; Brgy. Tongmageng, Municipality of Sitangkai, Tawi-Tawi	DTI-ARMM/ JICA/ Industry Cluster

Program	Description	Beneficiary/ Year Implemented	Implementing Agency
National Seaweeds Development Program Mas SAGANANG SAKAHANG-PANDAGAT Seaweed Livelihood Development Program 2017-2022	The National Seaweeds Development Program's primary goal is to increase seaweed production through the various development strategies and activities being implemented nationwide to provide livelihood to fisherfolks. This is through the government and farmers/ private sector partnership and collaboration efforts.	Those identified by BFAR during its yearly planning sessions/ 2017	DA-BFAR
	Component 1: Mas SAGANANG Anihan • Increasing seaweed productivity through improved farming technologies of various seaweed species, adoption of climate resilient grow-out technologies and expansion in new production areas Component 2: Mas SIGLANG Samahan • Capacitating seaweed farmers to become entrepreneurs through formation of cooperatives and improved marketing linkages Component 3: Mas SAGANANG SAMA-SAKANG KALAKAL • Promoting community-based PRODUCT CHAMPIONS showcasing value-added products made from seaweeds and land-based produce Note: The project titles and components listed above are taken from the existing National Seaweed Development Program 2017-2022	Those identified by BFAR during its yearly planning sessions/ 2017	DA-BFAR
GUSO-Philippines GIS for Upscaling Seaweed Operations in the Philippines	DOST-funded project which applied the use of GIS in gathering/developing data and information related to seaweed in the Philippines. This data will be stored in one repository where intended beneficiaries, such as policy makers and seaweed farmers can access to it.	Research institutions, academe, LGUs, Government sectors, Seaweed Farmers and traders and all industry stakeholders/ 2016	Xavier University, MSU-Naawan, SPAMAST

Program	Description	Beneficiary/ Year Implemented	Implementing Agency
2015 ARMM-Health, Education, Livelihood, Peace and Governance and Synergy (ARMM-HELPS) Project	A regional government convergence project that address development through an integrated delivery of services in respective areas in close coordination with stakeholders at the provincial, municipal and barangay levels	The identified barangay LGUs and its residents-beneficiaries/ 2016	Autonomous Regional Government and Line Agencies

Industry Needs and Investment Opportunities

Inputs	• Establishment of Nurseries • Provision of motorized and non-motorized Banca • Seaweed Farm Implements • Provision of Seedlings • Capital support and financing windows
Production	• Provision of Solar dryer • Provision of Warehouse • Provision of Baling Machine
Processing/ transformation	• Food processing center for seaweed-based food products • New technology • Establishment of processing plant (for semi and refined-carrageenan)
Marketing	• Market agreement to ensure price stability
Logistic and Infra Support	• Transport system to serve from municipal port to commercial and market destinations (both at the provincial and regional centers)

Economics of the Six Clustered Industries in ARMM

Abaca Industry

Investment Cost

Cost (PHP) Per Hectare at 1,600 Hills (2.5m X 2.5m)	
Establishment Cost:	
Land Preparation (Clearing and Plowing)	5,000.00
Lay-outing	1,000.00
Planting	4,800.00
Planting Material including delivery at P25/pc	40,000.00
Sub-Total	**50,800.00**

Maintenance Cost (PHP) Per Year:	
Weeding (2,000/ha/quarter)	8,000.00
Fertilizer Applications (as necessary)	500.00
Pesticide (as necessary)	500.00
Fertilizer (12bags) (as necessary)	14,400.00
Sub-Total	**23,400.00**

After two (2) years, the abaca plant is ready for harvest. In the succeeding years, harvesting is done thrice (3) a year for 10 years.

Income Statement Per Hectare for Year 2 (First Harvest)
(Unit: PHP)

Conforme	HAND STRIPPED	SPINDLE STRIPPED	DECORTICATED
Dry Yield of Fiber (1st Harvest-Year 2) in Kg	800	800	1,200
Price Per Kg	70.00	70.00	50.00
Gross Income	56,000.00	56,000.00	60,000.00
Less: Labor Cost (60%)	33,600.00	33,600.00	36,000.00
Less: Establishment & Maintenance Cost	74,200.00	74,200.00	74,200.00
Net Income (Loss)	-51,800.00	-51,800.00	-50,200.00

Income Statement Per Hectare for Year 3 (3 Harvests Per Year)
(Unit: PHP)

PARTICULARS	HAND STRIPPED	SPINDLE STRIPPED	DECORTICATED
Dry Yield of Fiber (1st Harvest-Year2) in Kg	4,800	4,800	7,200
Price Per Kg	70	70	50
Gross Income	336,000	336,000	360,000
Less: Labor Cost (60%)	201,600	201,600	216,000
Less: Maintenance Cost	23,400	23,400	23,400
Less: Year 2 deficit	51,800.00	51,800.00	50,200.00
Net Income	59,200.00	59,200.00	70,400.00

Return of Investment Per Year (ROI) for a Hectare of Abaca Plantation

i. Handstrip/Spindle

YEAR	Net Income	Expenses	ROI
YEAR 2	-51,800	74,200	-
YEAR 3	59,200.00	23,400	253 %
YEAR 4	59,200.00	23,400	253 %
YEAR 5	59,200.00	23,400	253 %
YEAR 6	59,200.00	23,400	253 %
YEAR 7	59,200.00	23,400	253 %
YEAR 8	59,200.00	23,400	253 %
YEAR 9	59,200.00	23,400	253 %
YEAR 10	59,200.00	23,400	253 %
TOTAL	**421,800.00**	**261,400.00**	**161 %**

ii. With the use of a Decorticating Machine

YEAR	Net Income	Expenses	ROI
YEAR 2	-50,200.00	74,200	-
YEAR 3	70,400.00	23,400	300 %
YEAR 4	70,400.00	23,400	300 %
YEAR 5	70,400.00	23,400	300 %
YEAR 6	70,400.00	23,400	300 %
YEAR 7	70,400.00	23,400	300 %
YEAR 8	70,400.00	23,400	300 %
YEAR 9	70,400.00	23,400	300 %
YEAR 10	70,400.00	23,400	300 %
TOTAL	**513,000.00**	**261,400.00**	**196 %**

Income in using Decorticating machine is better than spindle or hand-stripped because of the volume of fiber a farmer can extract from an abaca plant. By using decorticating machine, around 1.5 times more volume of fibers could be extracted comparing to spindle or hand-stripped.

Coconut Industry

Investment Cost and Returns for a Hectare of Coconuts in ARMM CY 2018

Year	Copra Yield (kg/ha)	Gross Income (Php)	Total Cost (Php)	Net Benefit/Loss (Php)	Benefit Cost Ratio
1	-	-	17,148.00	(17,148)	-1
2	-	-	13,121.00	(13,121)	-1
3	-	-	15,294.00	(15,294)	-1
4	360	7,200.00	20,328.00	(13,128)	-1
5	536	10,720.00	20,328.00	(9,608)	0
6	894	17,880.00	20,328.00	(2,448)	0
7	1,360	27,200.00	20,328.00	(6,153)	0
8	2,037	40,740.00	20,328.00	(9,373)	0
9	3,038	60,760.00	20,328.00	11,644	0.57
10	3,575	71,500.00	20,328.00	51,172.00	2.52

Assumptions in the above computation:

- 143 coconut trees in a hectare
- Average Annual Yield per tree= 100 nuts
- Selling Price of Copra=P 20.00/kg
- Nut to copra conversion rate= 4 nuts/kg. of copra

COSTS

1. Harvesting and copra production= P 0.33/kg of copra
2. Transport and handling of copra= P 0.20/kg of copra
3. Input Costs:
   3a. 150 dwarf seedlings at P 40.00/seedling= P 6,000.00
   3b. Fertilizer per year

Year	Ammonium Sulfate		Potassium Chloride		Total Cost
	Volume in bags	Cost (Php)	Volume in bags	Cost (Php)	
1	1.43	1,144.00	1.71	3,204.00	4,348.00
2	2.15	1,716.00	2.57	4,805.00	6,521.00
3	2.86	2,288.00	3.43	6,406.00	8,694.00
4 to 50	4.29	3,432.00	5.72	10,296.00	13,728.00

4. Labor Costs

Year	Activities	No. of Man Days	Labor Cost @ P 200.00/Man Day (Php)
1	• Clearing, • Holing, planting and basal application of fertilizer • Rignweeding every two months	10 10 14	2,000.00 2,000.00 2,800.00
SUBTOTAL			**6,800.00**
2 TO 60	• Ringweeding every two months • Fertilizer application, twice a year • Slashing/underbrushing 3x/year	14 10 9	2,800.00 2,000.00 1,800.00
		SUBTOTAL	6,600.00
		TOTAL	13,400.00

To maximize income from copra alone, below are the computations of other potential source of income from coconut by-products through value addition.

	Nut(s) Seednut or Buko) (pcs)	Net Weight (kg)	Husk (kg)	Coir (kg)	Peat (kg)	Whole Nut (kg)	Shell (kg)
Weight	8000	17,333.33	6,933.33	2,080.00	4853.33	10,400.00	2,426.67
Price (est)	10	7.00	3.50	7.50	5.00	6.40	3.50
Revenue	Php80,000.00	Php121,333.33	Php24,266.67	Php15,600.00	Php24,667.67	Php66,560.00	Php8,493.33
Est. Monthly Revenue	**Php6,666.67**	**Php10,111.11**	**Php2,022.22**	**Php1,300.00**	**Php2,022.22**	**Php5546.67**	**Php707.78**

	Charcoal (kg)	Coconut Water (kg)	Kernel (kg)	Virgin Coconut Oil (kg)	Desicated Coconut (DCN) (kg)	Copra (kg)	Crude Coconut Oil (CNO) (kg)
Weight	606.67	1	1.43	1,144.00	1.71	3,204.00	4,348.00
Price (est)	16.00	2	2.15	1,716.00	2.57	4,805.00	6,521.00
Revenue	Php9,706.00	3	2.86	2,288.00	3.43	6,406.00	8,694.00
Est. Monthly Revenue	**Php808.89**	4 to 50	4.29	3,432.00	5.72	10,296.00	13,728.00

(Source: Assumptions are from presentation made by Mr. Migdonio Clamor, Jr., Executive Director, Cocolink, Inc. During DTI-ARMM TNKK Summit last Oct. 11, 2018 in Cotabato City)

Coffee Industry

COST AND RETURN ANALYSIS OF ROBUSTA COFFEE PRODUCTION IN ONE (1) HECTARE AREA

ITEM	Unit	Unit Cost (PhP)	COSTS AND RETURN ANALYSIS OF COFFEE PRODUCTION IN A HECTARE AREA											
			Year 1		Year 2		Year 3		Year 4		Year 5		Year 6	
			Qty	Cost/ Value (PhP)	Qty	Cost/ Value (PhP)	Qty	Cost/ Value (PhP)	Qty	Cost/ Value (PhP)	Qty	Cost/ Value (PhP)	Qty	Cost/ Value (PhP)
GROSS INCOME: Sales of Green Coffee Beans	kilo	100			350	35,000	834	83,400	1,250	125,000	1,667	166,700	1,667	166,700
EXPENSES: Labor: Clearing/ Brushing/ Contouring	sq.m.	0.30	10,000	3,000										
Field Layout/Staking	md	300	6	1,800										
Holing (75 holes/md)	holes	3.00	1,667	5,001										
Basal Fertilization and Transplanting	md	300	7.25	1,450										
Replanting (5%)	md	300.00	2.5	500										
Ringweeding/ Underbrushing (2-4x)	tree	1.50	6,668	10,002	6,668	10,002	3,334	5,001	3,334	5,001	3,334	5,001	3,334	5,001
Sidedress Fertilization (2x)	tree	1.25	3,334	4,168	3,334	4,168	3,334	4,168	3,334	4,168	3,334	4,168	3,334	4,168
Foliar Fertilizer Spraying (4x)	md	300	8	2,400	8	2,400	8	2,400	8	2,400	8	2,400	8	2,400
Bio-Pest Control (4x Spraying)	md	300	8	2,400	8	2,400	8	2,400	8	2,400	8	2,400	8	2,400
Bending/Training of Coffee Multiples	hill	0.50	1,667	834		0								
Pruning (Formative/ Phytosanitary)	md	300		0	3	900	5	1,500	6.0	1,800	6.0	1,800	6.0	1,800
Harvesting	md	300		0	7	2,100	15	4,500	20	6,000	25.0	6,000	25.0	11,800
Floating/ Drying (Dry Processing)	md	300		0	2	600	5	1,000	10.0	2,000	15	3,000	19.50	3,900
Drying, Dehulling, Cleaning and Bagging	md	300		0	1	300	3	550	8	2,400	10.0	3,000	10.00	3,000
Sub-Total			**31,555**		**22,870**		**21,519**		**26,169**		**27,769**		**34,469**	
Inputs: Stakes	pc	0.25	1,667	417										
Planting Materials: Coffee Seedlings	pc	25	1,667	41,675										
Organic Fertilizer (0.5kg/hill), 834 kg	kg	7	5,838	2,940	1,667	11,669	3,334	23,338	3,334	23,338	3,334	23,338	3,334	23,334
Foliar (Organic) Fertilizer (Based on leaf analysis)	liter	250	4	1,000	4	1,000	8.0	2,000	8	2,000	8	2,000	8	2,000
Bio-Control repellants	liter	150	3	450	3	450	6	900	6	900	6	900	6	900
Pruning Shear	pc	250			1	250	3	750						
Knapsack Sprayer	unit	2,700	1	2,700	1	2,700								
Plastic Container for Harvesting	pc	50			3	150	3	150	3	150	3	150	6	300
Drying Trays	pc	300			2	600	3	900	3	900	2	600	4	1,200
Jute Bags for Storing Coffee Berries	pc	50			5	250.00	6	300	3	150	3	150	4	200
Sub-Total			**49,182**		**17,069**		**28,338**		**27,438**		**27,138**		**27,934**	
TOTAL EXPENSES			**80,736**		**39,939**		**49,857**		**53,607**		**54,907**		**62,403**	
NET INCOME			**-80,736**		**-4,939**		**33,543**		**71,393**		**111,793**		**104,297**	
CUMULATIVE NET INCOME			**-80,736**		**-14,307**		**19,236**		**90,629**		**202,422**		**306,719**	

Source : 2017-2022 Philippines Coffee Industry Roadmap

Oil Palm Industry

Basic Facts about Oil Palm

Botanical name	Elaeis guineensis Jacq.
Common Name	African oil palm
Species	Tenera (Dura x Pisifera)
Plant height	20-30 m
Trunk circumference	350- 400 cm
Frond production	24-30 per year
Frond length	6 - 8 m
Leaf color	Green
Ripe fruit color	Reddish-orange
Nursery period	8 - 12 months
Age of harvesting after field planting	30 months
Harvesting intervals	10-15 days
Number of bunches per palm	10-12
Average bunch weight (8 yrs & above)	10-25 kg.
Average number of fruitlets per bunch	1,000
Yield per year (fresh fruit bunches)	18-25 metric tons per hectare
Shape of fruitlets	Spherical to oval
Kernel per bunch (fruit)	3 – 4.5%
Oil per bunch (fruit)	18 – 25%
Oil per Mesocarp	20 – 50%
Average crude oil yield	4.2 MT/hectare/year
Average palm kernel oil yield	300 – 350 kg/hectare/year
Planting density	128 – 142 palms per hectare
Economic life	25– 30 years

Source: OIl Palm Industry Roadmap 2014-2023

Investment Cost and Return

Investment Cost in a 1-hectare Oil Palm Plantation

Year	Items	Cost (Php)	Share
1st to 3rd Year	Planting Materials	32,500	30%
	Fertilizer	50,000	45%
	Labor	24,000	22%
	Other Supplies	3,500	3%
	Total	**110,000**	**100%**

Income from 1-hectare Oil Palm Production

Year	Measure	Production Volume (MT/hectare) based on Area Suitability Level		
		High	Medium	Low
3rd to 5th Year	Production (MT)	50	37	29
	Price per Ton (Php)	5,000	5,000	5,000
	Gross Income (Php)	250,000	175,000	145,000
6th to 25th Year	Production (MT)	600	500	400
	Price per Ton (Php)	5,000	5,000	5,000
	Gross Income (Php)	3,000,000	2,500,000	2,000,000
Annual Net Income 6th to 25th Year		**116,000**	**100,000**	**69,000**

The Philippine Palm Oil Development Council Inc. (PPDCI) estimated that the establishment and cost of maintaining a 1-hectare farm for oil palm in the first three (3) years is about 110,000 pesos for fertilizer (45%), labor (22%), and planting materials (30%). From 6th to 25th year, the annual average expense for labor and fertilizer is 18,000 to 34,000 pesos.

In terms of profitability, oil palm farmers may recover their investments after five (5) years and continue to harvest every ten (10) to fifteen (15) days in thirty (30) years. The computation will vary depending on the quality of the plant seedlings of oil palm. The income for a 1-hectare farm ranges from 2 to 3 million for a period of 20 years. This figure can be further translated into annual income of 69,000 pesos for low yield, 100,000 pesos for medium yield, and 116,000 for high yield plantation.

In addition, the benefit from oil palm plantation can be augmented through intercropping of mung bean and corn in the first 3 years or during the gestation period. Once fully established, oil palm can provide stable income to investors/farmers. A farmer may also continue to implement intercropping of cacao, coffee, and other crops.

Rubber Industry

Year 1 to Year 4

Establishment Cost for 1 hectare				
Materials	**Quantity**	**Unit Cost**	**Total Cost**	**Remarks**
Seedlings	500 pcs	35.00	17,500.00	
Round-up (Pesticide)	8 liters	350.00	2,800.00	Application of round-up is every 6 months with 4 liters per hectare
Fertilizer (14-14-14)	9 bags	1,400.00	12,600	Application is every quarter
Spray	1 pc	3,000.00	3,000.00	
Labor	1 worker	150/day	54,000.00	One year salary of worker
TOTAL COST OF INVESTMENT FOR THE FIRST YEAR				**PhP 89,900.00**

Year 5

Harvesting Materials Cost for 1 hactare			
Materials	**Quantity**	**Unit Cost**	**Total Cost**
Tapping Knife	1 pc	300.00	300.00
Collecting cups (for latex)	500 pcs	12.00	6,000.00
Banyera (Coagulating tank)	10 pcs	500.00	5,000.00
Pail	2 pcs	200.00	400.00
Tie Wire #12	20 kg	80.00	1,600.00
Spout	500 pcs	3.00	1,500.00
		TOTAL COST OF INVESTMENT	**PhP 14,800.00**

FARM PRODUCTION AND CONVERSION

Daily latex production	40 liters/ha/tapping day
Tapping days per month	15 days
Monthly latex production	600 liters
Conversion of latex to cuplump (50%)	300 kg cuplamp/ha/month
Collection of scrap/cuplump after latex collection	30 kg/ha/month
Price of cuplump/scrap	PhP 24.00/kg
Price of dry rubber sheet	PhP 57.00/kg
Maintenance cost/ha/month	PhP 1,170
Processing cost	PhP 6.00/kg of dry rubber
Tapper's share	30%
Final Stand of Productive trees	350 trees/ha

COMPARISON OF MONTHLY RETURN OF ONE HECTARE RUBBER FARM PRODUCTION (CUPLUMP VS DRY RUBBER SHEET)

Type of Rubber Production	Yield (kg)	Price/kg (PhP)	Gross Sales (PhP)	Cost/Expenses (PhP)			Net Income	Value Added by processing
				Maintenance	Tapper's Share	Processing		
Cuplump	300	PhP 24.00	7,200	1,170	2,160.00	0	3,870	0
Dry Rubber								
a. Sheet	180	PhP 57.00	10,260	1,170	3,078	1,080	4,932	1,080
b. Scrap	30	PhP 22.00	660	0	198	0	462	-
Total (a+b)	-	-	-	-	**3,276**	-	**5,394**	-

The first 4 to 5 years of rubber trees are in the immature phase and 6 to 25 years are productive, this is the stage where the yield of latex is high. When it reaches more than 25 years, the latex collection slows down until it reaches 30 years and above. The average life span of rubber tree is 3o years if standard tapping is being practiced.

Hot season also contributes to the slowdown of latex collection.

Seaweed Industry

Note: The information is generic and may be applicable to all areas engaged in seaweed farming. However, variables may differ depending on the price of planting materials vis-a-vis market price of the product (raw dried seaweed) in a given area/ region.

Investment Cost

Material Requirements of Seaweed (Cottonii) Farming (1/4 hectare)						
MATERIAL/ DESCRIPTION	FLOATING METHOD			FIXED-OFF BOTTOM METHOD		
	QTY.	UNIT COST	COST (Php)	QTY.	UNIT COST	COST (Php)
Seedlings	2,560 kg	8	20,480	5,000 kg	8	40,000
Concrete blocks 30Kg each for anchor	20 pcs	200	4,000	100pcs	5	500
Rope #14 (for Main support)	3 rolls	785	2,355	2 rolls	785	1,570
Rope #6 (for longline)	10 rolls	200	2,000	10 rolls	200	2,000
Rope # 4 (for floaters)	2 rolls	105	210	15 rolls	150	2,250
Plastic twine (soft type for tie-tie)	10 rolls	150	1,500	1 pc	500	500
Floats (plastic bottles, styropor balls)	25 pcs	30	750	1 pc	300	300
Cutting Knife (for seedlings)	5 pcs	25	125	5 pcs	25	125
Seedling baskets/containers	3 pcs	100	300	3 pcs	100	300
Diving goggles/mask	2 pcs	300	600	2 pcs	300	600
Motorized banca/boat (capacity: 1,000kg) optional depending on location of farm	1 unit		50,000	I unit		50,000
		TOTAL	**82,320**			**98,145**

Productivity of Seaweed (Cottonii) Farm by method used (¼ Hectare)		
Particular	**Floating Method**	**Fixed-off Bottom Method**
No. of Monolines of 6.5-meter length	800	1,250
No. of plants per line	45	45
Weight of seedlings	80 grams	60 grams
Average Daily Growth Rate (%)	5%	5%
Days of Culture	45-60	45-60
Losses on breakage, grazing, diseases	20%	20%
Average weight of plants upon harvest	256 grams	256 grams
Total Fresh weight Production	9,216 kg	14,400 kg
Seedling allocation for succeeding cropping	2,560 kg	5,000 kg
Total Weight for drying	6,656 kg	9,400 kg
Ration of Fresh to Dry at 38% Moisture Content	7:1	7:1
Total Dry Weight Production	**951 kg**	**1,343 kg**
Source : SIAP/ R. Simbajon/Seaweed Producers Cooperative, Tongsibalo, Sibutu/ A. Nahul		

Return of Investment

ITEM	FLOATING METHOD	FIXED-OFF BOTTOM METHOD
Sales of Harvest	309,075.00	436,475.00
Initial Investment Cost/Materials	82,320.00	98,145.00
Labor (seedlings: cutting and tying; tying to monolines @ P5.50/monoline)	22,000.00	34,375.00
Maintenance Cost	25,000.00	30,000.00
Total Cost	129,320.00	162,520.00
Annual Net Profit	179,755.00	273,955.00
Return of Investment (ROI)	139%	168%
Gestation Period	45-60 days	45-60 days
Assumptions: *Annual production at 5 croppings per year* *Average farmgate price of Php 65 per kilo as of January- March 2018*		

List of Technical Manuals on the Clustered Industries

A. Abaca Industry

Title of Manual/ Handbook/ Publications	Author/ Publisher/ Sponsor	Source/ Link
Abaca Techno-Guide	PhilFIDA	www.philfida.da.go.ph email to esd.fida@yahoo.co
Actual Farmer's Field and abaca Technoguide, The Philippine Abaca Industry Roadmap 2014-2020	PhilFIDA	www.philfida.da.go.ph email to esd.fida@yahoo.co
Abaca Sustainability Manual	PhilFIDA	3rd Floor, PCAF Building Department of Agriculture Diliman, Quezon City

B. Coconut Industry

Title of Manual/ Handbook/ Publications	Author/ Publisher/ Sponsor	Source/ Link
Coconut Check	Cocolink in Davao City	http://cocolinkph.org/know-your-coconut
Other manuals	Philippine Coconut Authority	Respective Region/Province

C. Coffee Industry

Title of Manual/ Handbook/ Publications	Source/ Link
Good Agricultural Practices(GAP) for Robusta Coffee Production	https://www.hrnstiftung.org/wp-content/uploads/2017/07/17.02.03_Full_GAP-Manual-000-200.pdf
Code of Good Agricultural Practices (GAP) for Coffee	Code of Good Agricultural Practices (GAP) for Coffee 1
Manual for Arabica Cultivation	https://bootcoffee.com/wp-content/uploads/2015/04/manual-for-arabica-cultivation-vs.pdf

D. Oil Palm Industry

Technical Manuals on Oil Palm production is available at Department of Trade and Industry-BARMM. You can also contact Philippine Palm Oil Development Council, Inc. (PPDCI) through their Facebook page for technical trainings and industry news updates: https://www.facebook.com/ppdci/.

E. Rubber Industry

Title of Manual/ Handbook/ Publications	Author/ Publisher/ Sponsor Source/ Link
Nursery Management, Production Technology and Integrated Farming System Manual (AICCEP)	DTI-ARMM Basilan and City Agriculture Office of Lamitan City
Rubber Production Manual	DTI-ARMM, JICA

F. Seaweed Industry

Title of Manual/ Handbook/ Publications	Author/ Publisher/ Sponsor	Source/ Link
Basic Manual - Seaweed Farming, Post-Harvet Improvement and Marketing	Capacity Building for Community Development in Conflict-Affected Areas in Mindanao (CD-CAAM, JICA)	Ministry of Agriculture, Fisheries, and Agrarian Reform ORG Compound, Cotabato City Bangsamoro Development Agency Diversion Road, Purok Islam, Brgy. Datu Balabaran (MB Tamontaka), Cotabato City
Manual on Seaweed Framing	Godardo L. Juanich/ Food and Agriculture Organization (FAO)	http://www.fao.org/docrep/field/003/AC416E/AC416E00.htm
Better Management Practices for Seaweed Farming Eucheuma and Kappaphycus	N. Arevalo, T. Donaire, M. Ricohermoso and R. Simbajon	https://enaca.org/?id=474
The farming of the seaweed Kappaphycus	Hurtado, A. Q., & Agbayani, R. F./ Aquaculture Department, Southeast Asian Fisheries Development Center	https://repository.seafdec.org.ph/handle/10862/2402
How to Start a Seaweed Production Business	Business Diary Philippines	https://businessdiary.com.ph/1083/how-to-start-a-seaweed-production-business/

Registration, Accreditation, and Certification Charter

Name of Office/Address/Contact details	Type of Certification, Application, Accreditation	Requirements
Department of Trade and Industry-ARMM Frontline Services available at Provincial Offices: DTI-Maguindanao DTI-Lanao del Sur DTI-Basilan DTI-Sulu DTI-Tawi-Tawi	Business Name Registration (BNR) For Proprietorship	1. Applicants must be a Filipino citizen and 18 years old and above. 2. Prepared with a list of business names. (at least 3 Business) 3. Filled up BNR form Fees apply depending on the scope of your business: Barangay – Php 200; City/Municipality – Php 500; Regional – Php 1,000; and National – Php 2,000. (Note that some businesses, such as services, brokers, dental clinics, hospitals, may need other requirements.) Download Application Form: https://bnrs.dti.gov.ph/web/guest/downloads
Securities and Exchange Commission (SEC) Provincial Offices: 1. Davao City 2. Cagayan de Oro City Zamboanga City	Certificate of Registration for Partnership and Corporation (stock and non-stock)	1. Name verification slip 2. Registration Form (Online) 3. Articles of incorporation and by-laws 4. Cedula of Incorporators 5. Minutes of Meeting of Incorporators 6. Joint affidavit of two incorporators to chance corporate name 7. For nonstock only: List of members certified by the corporate secretary and list of the names of contributors or donors and the amounts contributed or donated certified by the treasurer. SEC Online Company Registration System: https://crs.sec.gov.ph/ Download Application Form: https://crs.sec.gov.ph/
Local Government Units	Business Permit	1. DTI Business Name Registration (BNR) Certificate (for sole proprietorship) 2. SEC Registration Certificate for Corporations and Partnerships (for partnership and corporations) 3. Social Security System (SSS) 4. Zoning Clearance (City Engineers Office) 5. Sanitary Work Permit (DOH) 6. PhilHealth for Employees (PhilHealth) 7. Fire Safety Clearance (BFP) 8. Community tax certificate or Cedula 9. Lease contract or tax declaration 10. Barangay clearance *If the nature of your business is similar to that of cinemas, malls, restaurants, then public liability insurance is needed.

Name of Office/Address/Contact details	Type of Certification, Application, Accreditation	Requirements
Cooperative Development Authority Provincial Offices: 1. Cotabato City 2. Marawi City 3. Lamitan City 4. Jolo 5. Bongao	Certificate of Registration	1. Must have at least fifteen (15) or more members who are Filipino citizens of legal age with a common bond of interest and are actually residing or working in the intended area of operation; 2. Must have completed a Pre-Membership Education Seminar (PMES) 3. Must submit the following documents to CDA (standard forms are available at CDA offices): • Economic Survey • By-laws • Treasurer's Affidavit • Surety Bond of Accountable Officer • Approved Cooperative Name Reservation Slip/Notice (CNRS/N) • Registration Fee (Php 700) • Certification of PMES Online Cooperative Reservation: http://web-grp1-elb-694105712.ap-southeast-1.elb.amazonaws.com/reservation/reservation_details
BIR Revenue District Office No. 107 - Cotabato City, Maguindanao Office Address: BIR, Building SK Pendatun St., Cotabato City email: rdo_107css@bir.gov.ph Revenue District Officer: SATAR T. LAGUINDAB direct no.: fax: (064) 421-53-42 Assistant Revenue District Officer: NORA R. MACARAMBON (OIC) direct no.: (064) 421-42-42 Revenue District Office No. 102 - Marawi City, Lanao del Sur Office Address: Alic Usman Building, Quezon Ave., Marawi City email: rdo_102@bir.gov.ph Revenue District Officer: MONIB Y. DIMALOMPING (OIC) cell no.: 0917-887-2159 fax: Assistant Revenue District Officer: cell no.: 0917-777-5971 Revenue District Office No. 94 - Isabela City, Basilan Office Address: Aniceto G. Mon Bldg. N, Valderosa St., Isabela City, Basilan email: rdo_94@bir.gov.ph Revenue District Officer: GARY M .CATALAN (OIC) direct no.: (062) 200-34-06 fax: Assistant Revenue District Officer: BARBARA D. MON (OIC) direct no.: (062) 200-34-07	For TIN and Certificate of Registration, Authority to print O.R, monthly taxes	Requirements: • BNR from DTI • Business Permit from LGU

Name of Office/Address/Contact details	Type of Certification, Application, Accreditation	Requirements
Revenue District Office No. 95 - Jolo, Sulu Office Address: 2/f Hadji Sabtirul Building, Travisi St., Jolo, Sulu email: rdo_95@bir.gov.ph Revenue District Officer: ZHATRRA Assistant Revenue District Officer: AYESHA A. UTTOH (OIC) B. URIN direct no.: (085) 341-89-11 fax: (085) 341-89-11 Assistant Revenue District Officer: MAHMOUDRAID S. ASGALI (OIC) direct no.: -Revenue District Office No. 96 - Bongao, Tawi-Tawi Office Address: AMT Tamburani Bldg. Pag-asa St., Tawi-Tawi email: rdo_96css@bir.gov.ph Revenue District Officer: ROGELIO C. DIZON direct no.: (062) 268-10-00 fax: (062) 268-13-42 Assistant Revenue District Officer: AYESHA A. UTTOH (OIC)		
Regional Board of Investments (RBOI) - ARMM ARMM Compound, Gov. Gutierrez Ave., RH 7, Cotabato City	APPLICATION FOR REGISTRATION UNDER BOOK I OF THE OMNIBUS INVESTMENTS CODE OF 1987 AS AMENDED (EXECUTIVE ORDER NO. 226)	• General BOI Application form • SEC Registration/ DTI Business Registration (include amendments, if any) • Latest Audited Financial Statements (for existing corporations) • For projects applying as Expansion/ Modernization, last three years' AFS and ITR. • Latest General Information Sheet (GIS) submitted to SEC • Board Resolution Authorizing Officer to represent the company (see format) • Publisher's Affidavit of Publication of 'Notice' • Other documents as may be required in the Specific Guidelines Download Application Form: http://www.rboi.armm.gov.ph/programs/registration
Philippine Board of Investment (BOI)	An attached agency of Department of Trade and Industry (DTI), responsible for the promotion of investments in the Philippines.	Investing in the country depends on the type of business an investor is interested in. Below is the link to know more about the steps in setting up the business in the Philippines. http://boi.gov.ph/how-to-setup-business/setting-up/business-process/

Name of Office/Address/Contact details	Type of Certification, Application, Accreditation	Requirements
Department of Labor and Employment-ARMM 1. Cotabato City 2. Marawi City 3. Lamitan City 4. Jolo 5. Bongao	Certificate of Registration for Rural Workers Organization (RWO)	1. Application for Registration duly filled-up 2. List of Officers and Members with their ADDRESSES. 3. MINUTES of Organizational/Reorganizational Meeting with ATTENDANCE SHEET. 4. MINUTES of Ratification of Constitution and By-Laws (CBL), its date of ratification with the ATTENDANCE SHEET. (Note: This document is not required if the ratification is done simultaneously with the organizational meeting and the same is reflected in the minutes of organizational meeting. 5. Constitution and By-Laws duly ratified by the members. 6. Financial Report/Statement is the association has been in existence for one (1) year or more unless it has not collected any amount from the members in which case a STATEMENT to this effect be included in the application. 7. REGISTRATION FEE -P70.00 plus P15.00 documentary stamp = P85.00 NOTE: Documents 1 to 6 to be notarized. All documents shall be certified under oath by the Secretary or Treasurer as the case may be and attested by the President. All documents supporting the application for registration shall be prepared in 4 copies; 1 original and 3 duplicate copies. (The original copy and 2 duplicate copies shall be submitted to DOLE and 1 duplicate copy for the association.)
Bureau of Plant Industry Bago-Oshiro, Toril, Davao City	Accreditation of Nursery	http://bpi.da.gov.ph/bpi/images/Arta/PLANT%20NURSERY%20ACCREDITATION.jpg
Philippine Coconut Authority-ARMM 3rd Floor, Department of Agriculture-XII Office, Sinsuat Avenue, Cotabato City	Certificate of Registration	Registration Requirements and Procedures for Coco Product and By-product Traders and Processors: http://www.pca.da.gov.ph/pdf/disclosure/tradersprocessors.pdf
Philippine Fiber Industry Development Authority	Accreditation of Traders and Processors	Licensing for Grading-Baling Establishments, Buying Stations, Trader-Exporter, Local Trader, Processor: http://www.philfida.da.gov.ph/images/services/Regulatory/Processflow/Process%20Flow%20for%20Issuance%20of%20License%20for%20GBE%20BS%20TE%20LT%20P.pdf Licensing for Fiber Classifiers: http://www.philfida.da.gov.ph/images/services/Regulatory/Processflow/Process%20Flow%20for%20Issuance%20of%20License%20for%20Fiber%20Classifier.pdf Application for Licenses: http://www.philfida.da.gov.ph/index.php/2016-11-10-03-32-59/2016-11-11-07-57-02/2016-11-15-06-47-57 Application for Accreditations: http://www.philfida.da.gov.ph/index.php/2016-11-10-03-32-59/2016-11-11-07-57-02/application-for-accreditation

Directory of Prominent Industry Players in ARMM

Industry players in AICCEP/MDLIP target province are listed below and the players in other provinces are not included.

A. Abaca Industry (Lanao der Sur)

Name	Contact Details
LANAO DEL SUR CLASS A * Trader	
AL-FAHAD ABACA ENTERPRISES Pindolonan, Calanogas, Lanao del Sur	PUNDATO A. ALUG Proprietor Cell No.: 0928-458-1806
J & A ABACA ENTERPRISES Baya, Ganassi, Lanao del Sur	ASMEN A. EBRAHIM Proprietor Cell No.: 0946-260-0867
DATUMULOK BODEGA Ngingir, Calanogas, Lanao del Sur	ABDULMOEN M. AMPASO Proprietor Cell No.: 0907-327-5254
LANAO DEL SUR CLASS D* Trader	
JN-RAFFY AGRI PRODUCT & ENTERPRISES Poblacion, Balabagan, Lanao del Sur	JUNAIR MACARAMPAT Proprietor Cell No.: 0907-122-5153
AMER ABACA TRADING Poblacion, Balabagan, Lanao del Sur	AMER A. MACASIRA Proprietor
ASNAWI R. GANDAMASIR Tuka, Pualas, Lanao del Sur	ASNAWI R. GANDAMASIR Proprietor Cell No.: 0909-676-8669
CALIBAO ABACA TRADERS Paigoay Coda, Marogong, Lanao del Sur	DAGAR S. CALIBAO Proprietor Cell No.: 0930-881-4412
DISIMBAN ABACA ENTERPRISES Calalanuan, Calanogas, Lanao del Sur	BAMER M. DISIMBAN Proprietor
AJMAL ABACA ENTERPRISES Tamabac, Calanogas, Lanao del Sur	JOMAR I. DISIMBAN Proprietor
GANASSI ABACA ENTERPRISES Pindolonan, Ganassi, Lanao del Sur	MASTOR D. MAROHOMBSAR Proprietor
PIPARASAN M. MACAPODI Panggawalupa, Ganassi, Lanao del Sur	PIPARASAN M. MACAPODI Proprietor Cell No.: 0907-677-5526
NAILA BODEGA and ENTERPRISES Punud, Calanogas, Lanao del Sur	WAIDA B. OMA Proprietor Cell No.: 0948-748-6069
MMM ABACA ENTERPRISES Calalanuan, Calanogas, Lanao del Sur	MOCTAR M. MACAPODI Proprietor
NAIF H.SALIM MABABAYA Tambac, Calanogas, Lanao del Sur	NAIF H. SALIM MABABAYA Proprietor
ALDIMAR ABACA ENTERPRISES Pindolonan, Ganassi, Lanao del Sur	ALDIMAR M. ALUG Proprietor
HAMIN ABACA ENTERPRISES Pantaon, Calanogas, Lanao del Sur	HAMIN M. ALUG Proprietor
JABBAR ABACA ENTERPRISES Tambac, Calanogas, Lanao del Sur	JABBAR M. ABDULCADER Proprietor
BENASING ABACA ENTERPRISES Danugan, Pualas, Lanao del Sur	COSARIE A. BENASING Proprietor
AL-AMIN ABACA ENTERPRISES Pagalongan, Calanogas, Lanao del Sur	AL-AMIN M. ALUG Proprietor

Name	Contact Details
SLS ABACA ENTERPRISES Tagoranao, Calanogas, Lanao del Sur	MAULANA P. MAROHOM Proprietor
AMEROGONG L. LIMANO Maladeg, Picong, Lanao del Sur	AMEROGONG L. LIMANO Proprietor
ABDULMANAN ABACA TRADING Tagoranao, Calanogas, Lanao del Sur	ABDULMANAN S. ABUBACAR Proprietor Cell No.: 0910-280-7915
HANAN ABACA TRADERS Linindingan, Pagayawan, Lanao del Sur	SAHARA A. DIAMADEN Proprietor Cell No.: 0907-506-2288

*Category of Trader determined in "PhilFIDA Administrative Order No.1"

B. Coconut Industry (Maguindanao)

Name	Contact Details
COCONUT SEEDLINGS PRODUCER	
UPIAN AGRI PINOY FARMERS PRODUCERS COOPERATIVE Darugao, Upi, Maguindanao	EDGAR PAREÑO upianagripinoy@yahoo.com 0921-656-6967
AL-MANI FARMERS MARKETING COOPERATIVE Guinibon, Datu Abdullah Sangki	BAGIYAN M. ANGELES angel_mayan12@yahoo.com 0926-191-9398
COCONUT PROCESSORS	
ORGANIX SOLUTION Tenorio, Awang, Datu Odin Sinsuat, Maguindanao	REYNALDO R. PACHECO President info@cocosource.com (02)- 706-0773
EKAYEN BUKO JUICE 12 Pastor Kimpo Subdivision, Cotabato City	VALDER BAINE A. YAP 064-421-9707
ACH CORPORATION (Fresh Buko Manufacturer) 10 Makakuka St., Cotabato City	MANCHANG C. ANG manchangang@gmail.com 064-421-2423
BABAE MABUHAY KA! PANDAG WOMEN'S ASSOCIATION (Coconut Sap Sugar Manufacturer) Pandag, Maguindanao	MOKALIDEN P. KIDO
AMIRSON PALAPA IRANUN (Coconut Condiment/ Seasoning) Luna St., Rosary Heights IV, Cotabato City	ZAINODIN S. LIDASAN SR. zainodinlidasan@gmail.com 0935-680-4313
BADAK MPC BUY & SELL Bulod, Gen. Salipada K. Pedatun, Maguindanao	MAKALANGKONG P. SILO 0915-521-2043
COPRA BUYERS/TRADERS	
TNC ENTERPRISES Poblacion, Shariff Aguak, Maguindanao	TEOFILO N. CHIO
JOE ENTERPRISES Jose Lim Sr. St., Cotabato City	JOSE G. ABELLANA SR 552-2839
GOLDEN HMP AGRI TARDERS COFICO Compound, Cotabato City	GONZALO R. YU SR. 0917-707-7016
ECK ENTERPRISE Rajah Tabunaway Blvd., Cotabato City	JESSIE U. CHIO
GREEN TRADERS Jose Lim Sr. St., Cotabato City	JAMES CHRISTOPHER D. YAP
DRAGON COPRA ENTERPRISES Quezon Avenue, Cotabato City	ALALI C. LIM
WAHAB TUDON Poblacion, Datu Paglas, Maguindanao	WAHAB TUDON

Name	Contact Details
HADJI OMAR BUY AND SELL Poblacion 2, Parang, Maguindanao	HJI. OMAR OSMEÑA 0917-316-3185
NASRUDIN FERMIN COPRA BUY AND SELL Sitio Gubat, Gadung, Barira, Maguindanao	OTENG FERMIN 0917-316-3185
GUIAMBLANG U. BUKA Tambunan, Guindulungan, Maguindanao	GUIAMBLANG BUKA 0926-951-2543
AL-RAHMAN FARMERS MULTI PURPOSE COOPERATIVE Manungkaling, Mamasapano, Maguindanao	MODRIKA MASUKAT 0917-626-1430
COTABATO MMZ ENTERPRISES Quezon Avenue, Cotabato City	MUKAMAD LAGUINDO Mrvetiligo2@gmail.com 064- 552-2787
AL-MANI FARMERS MARKETING COOPERATIVE Guinibon, Datu Abdullah Sangki	BAGIYAN M. ANGELES angel_mayan12@yahoo.com 0926-191-9398
WHOLENUT BUYERS	
TAUTIN BUY & SELL Poblacion, Pagalungan, Maguindanao	TAUTIN L. MAKALIMPAS
GAPOR COCONUT BUY/SELL Bulit, Datu Montawal	GAPOR BULANAN
RPM COCONUT BUY AND SELL Layog, Pagalungan	NORAISA P. MATALAM 0916-286-8538
STAMBO BUY & SELL Layog, Pagalungan	BADRUDIN A. BANDILA 0916-286-8538
ROPIA COCO BUY AND SELL Tuka, Sultan Mastura	ROPIA I. TAMAMA 0926-250-5919
AL-HAIR COCONUT BUYER Bulod, Gen. Salipada K. Pendatun, Maguindanao	SAIMA G. AMBA Nasino.umbi@gmail.com 0926-376-1507
MMM BUY & SELL Lower Idtig, Gen. Salipada K. Pendatun, Maguindanao	MAMA M. MASULOT masulot@yahoo.com 0935-826-1698
DUMA SALILAMA SALIK Gaunan, Rajah Buayan	DUMA S. SALIK
BADAK MPC BUY & SELL Bulod, Gen. Salipada K. Pedatun, Maguindanao	MAKALANGKONG P. SILO
H & F ABID COCONUT BUY AND SELL Dagurongan, Sultan Mastura	HARON KHALID ABID 0926-422-2251
MUSA COCONUT BUT & SELL Dagurongan, Sultan Mastura	KHALID A. MUSA Khalidmusa0820@gmail.com 0995-871-4090

C. Coffee Industry (Sulu)

Name	Contact Details
Dennis Coffee Shop	Scott Road, Jolo, Sulu Abdusali Ahalul 0916-947-8526
Herman 1866 Kauman Sulu Coffee	Patikul, Sulu Nurhatab D. Saddarani
Kankitap Consumer Cooperative	Latih, Patikul, Sulu Muddazer Hailanie 0935-703-7338
OSAMA Cooperative	Lahing-Lahing, Omar, Sulu Makintan Juraim 0965-140-0160
Jadjeera Cooperative	Bangkal, Patikul, Sulu Abdulgais Ustol 0936-294-9951
Peoples Alliance for Progress Cooperative	Panamao, Sulu Princess Kumalah Elardo 0977-426-1377

D. Oil Palm Industry (Maguindanao)

Name	Contact Details
Processors	
AGUMIL PHILIPPINES INCORPORATED Poblacion Buluan, Maguindanao	Poblacion Buluan, Maguindanao 4F Northside Business Hub, G.Lopez Jaena cor. AP Cortes Sts., Tipolo, Mandaue City
PHIL ROY MALANA	mpinocando@agusanplantations.com Tel. no.: +6332 2363435/3436

E. Rubber Industry (Basilan)

Name	Contact Details
Raw Rubber Local Traders in Basilan	
MR. EFREN NEW EJN Copra Rubber and Coffee Dealer	09209191478 09173105301
MR. ABDULHUSIN INSANA Lamitan Copra, Rubber Traders Assoc.	09973944988
MR. EDILBERTO MARTINEZ LARBECO	09477824564
MR. SABINIANO CANTAY UWARBMPC	09171370451
MS. CARLITO SUELA TARBAMC	09755545396
MR. JOEL ENRIQUEZ SCARBIDC	09354370284

F. Seaweed Industry(Tawi-Tawi)

Name	Contact Details
Local Buyers/Traders	
JOLLY C. AHAJA Sitangkai Seaweed Export Sitangkai, Tawi-Tawi Mobile No.: 0908-8971553	**ABDULAJID J. JAJI** Royal Marketing Bongao, Tawi-Tawi Tel. No : (068) 268-1059
NANAR M. AKMAD AK Seaweeds and Marine Products Trading Sitangkai, Tawi-Tawi	**JIMUEL S. QUE** JJ Trading Bongao, Tawi-Tawi Mobile No.: 0917-7188991
SITTI DELNES H. BALAIS Isla Seaweeds and Dried Fish Dealer Sitangkai, Tawi-Tawi	**RICK M. SAMSUYA** Bongao Fish Trading Bongao, Tawi-Tawi
AKMAD M. ABRAHAM AA Seaweeds and Marine Products Trading Sitangkai, Tawi-Tawi Mobile No.: 0920-7964020	**RAMIL J. BALADJI** Shalom Seaweeds Trading Bongao, Tawi-Tawi
JULMIN S. SALAHUDDIN NJ Seaweed and Marine Products Trading Sitangkai, Tawi-Tawi Mobile No.: 0997-5180675	**WANGPI K. LEONSUL** Wangpi Seaweeds Trading Bongao, Tawi-Tawi
AL-HASIL B. NAHUL Integrated Farmers and Seaweed Marketing Cooperative Sibutu, Tawi-Tawi Mobile No.:0949-1516882	**JULHATTA LADJA** Hats Trading Sitangkai, Tawi-Tawi Mobile No.: 0916-6469387
YUSA T. TAIB Buan Seaweed Farmers Marketing Cooperative Panglima Sugala, Tawi-Tawi Mobile No..: 0909-4238107	**ABUBAKAR SAWAE** Sitti Bahasa Seaweeds Dealer Bongao, Tawi-Tawi
PERSA A. NASALUDDIN Swerte Fisherfolks and Farmers Producer Cooperative Sibutu, Tawi-Tawi Mobile No.: 09099678200	**ABDULATIF A. MUDAH** Kasambuhan Ma Ungus-Ungus Association Sibutu, Tawi-Tawi Mobile No.:0948-3153194
KUYOH H. PAJIJI HK Seaweed Buyer Sibutu, Tawi-Tawi Mobile No.: 0939-9234594	**ABDULKARIM M. JOE** Abdulkarim Joe Marketing Sibutu, Tawi-Tawi CP No.: 0909-8705566
ELMER A. KALON Elmer Kalon Seaweed Buyer Sibutu, Tawi-Tawi Mobile No.: 09129497099	**ABDULAJID J. JAJI** Alfaibash Trading Sibutu, Tawi-Tawi Tel. No : (068) 268-1059
SHEREDE T. PIONAH Sam & Sheh Trading Sitangkai, Tawi-Tawi Mobile No.: 0912-0785866	**RUMAL BUNSUAN** 230 Seaweeds Buying Station Chinese Pier, Bongao, Tawi-Tawi Mobile No.: 0997-4411211
HJI. TUTOH S. AJAM JR Seaweeds & Copra Chinese Pier, Bongao, Tawi-Tawi Mobile No.: 0915-1373149	**REEMA SEAWEEDS TRADING** Reema Seaweeds Trading Sitangkai, Tawi-Tawi Mobile No.: 0906-5585714
Source: DTI-ARMM Tawi-Tawi BNR and Industry Profile	

Name	Contact Details
Seaweed Farmers Cooperatives	
SITANGKAI 1. Sipangkot Fisherfolks and Seaweeds Marketing Cooperative 2. Larap Seaweeds Farmers Marketing Cooperative 3. Sitangkai Seaweeds Farmers and Fisherfolks Marketing Coop. 4. Tawi-Tawi Farmers and Fisherfolks Producers Cooperative 5. One Basulta Seaweed Producers Cooperative **SIBUTU** 6. Integrated Farmers and Seaweed Traders Marketing Cooperative 7. Seaweeds Industry Producer Cooperative 8. Swerte Fisherfolk's and Farmers Producer Cooperative 9. Usaha Seaweeds Farmers and Fisherfolks Marketing Cooperative 10. Kahapan Seaweeds Farmers and Fisherfollks Producer Coop. 11. 11.Tatabangan Farmers Producers Cooperative 12. Taungoh-Tongbangbang Seaweeds Farmers Marketing Cooperative 13. Tawi-Tawi Napaqa Trading and Marketing Cooperative 14. Tandubanak Ridjiki Farmers Producer Cooperative 15. Tatabangan Farmers Producers Cooperative 16. Tongehat Farmers Marketing Cooperative 17. AAA Marine Product Marketing Cooperative 18. Tando Owak Farmers and Fisherfolks Producer Cooperative **PANGLIMA SUGALA** 19. Buan Seaweed Farmers Marketing Cooperative 20. Balimbing Seaweeds Farmers and Fisherfok's Producer Cooperative 21. Royal Island Farmers and Fisherfolks Marketing Cooperative 22. Kaulluman Ma Barangay Dungon Seaweeds Farmers Marketing Coop. 23. Parangan Cassava and Seaweeds Farming Producer Cooperative 24. Barangay Tahtah Seaweeds Marketing Cooperative **SOUTH UBIAN** 25. Sumping Tahik South Ubian Seaweeds Farmers Producer Coop	**LANGUYAN** 26. Tahaw Parola Farmers and Fisherfolks Marketing Cooperative 27. Marang-Marang Raayat Farmers Producers Cooperative **SAPA-SAPA** 28. Kalasahan Raayat Top-Top Multi-Purpose Cooperative 29. Sokah-Sokah Seaweeds Farmers and Fisherfolks Marketing Coop a 30. Banaran Tonggusong Traders Cooperative **TANDUBAS** 31. Sibakloon Integrated Marketing Cooperative 32. Ballak Marketing Cooperative 33. New Himbah Marketing Cooperative 34. Tandubato Integrated and Development Marketing Cooperative **BONGAO** 35. Sumangat Seaweeds Farmers Marketing Cooperative 36. Badjao Village Multi-Purpose Cooperative 37. Boheh Basag Farmers and Fisherfolks Producers Cooperative **SIMUNUL** 38. Tong-gusong Seaweeds Farmers and Fisherfolks Marketing Coop. 39. Kasambuhan Raayat Tong-Gusong Farmers Producers Coop. 40. Barangay Panglima Mastul Marketing Cooperative 41. Bakong Sahaya Farmers Marketing Cooperative 42. Panglima Haji Farmers and Fisherfolks Producers Cooperative 43. Bohe Indangan Farmers Marketing Cooperative 44. Manuk Mangkaw Kasilasa Producer Cooperative
Source: CDA-ARMM Tawi-Tawi	

Directory of Industry Enablers in ARMM

Office	Address	Contact Details
Department of Trade and Industry – ARMM		
Regional Office	BARMM Compound, Gov. Gutierrez Ave., Cotabato City	(064) 557-2819 dtiarmm@gmail.com dti@armm.gov.ph
Maguindanao PO	3rd Flr. Romeo Ma Bldg., Sinsuat Ave. Cor Pansacala St., Cotabato City	Datu Khalikuzaman Baraguir, Provincial Director dtimaguindanao@yahoo.com (064) 557-2474
Lanao del Sur PO	3/F RLM Bldg. Amaipakpak, Bo. Green, Marawi City	Moh. Aquil Mamainte, Provincial Director dtilds@gmail.com
Basilan PO	N.Valderoza St., Isabela City	Nonito Manuel, OIC Provincial Director dtiarmm_basilan@yahoo.com
Sulu PO	Capitol Site, Jolo, Sulu	Salem Tayong, Acting Provincial Director salemtayong@gmail.com
Tawi-Tawi PO	2nd Flr. BARNS Bldg., Tubig Boh, Bongao, Tawi-Tawi	Nazrullah Masahud, Provincial Director dtiarmm_twt@yahoo.com 0908-820-8098
ARMM Agencies		
Ministry of Agriculture, Fisheries and Agrarian Reform– BARMM	BARMM Compound, Gov. Gutierrez Ave., Cotabato City	Agriculture: (064) 421-1233/552-3166 Fisheries: (064) 421-9788 Agrarian Reform: (064) 552-1486/ Telefax: (064) 390-1461
Regional Board of Investments	BARMM Compound, Gov. Gutierrez Ave., Cotabato City	Eshan Karl Mabang, Executive Director rboi@armm.gov.ph Tel.no. (064) 421-9202 Telefax: (064) 421-1591
National Agencies		
Philippine Coconut Authority – ARMM	3rd Flr. Department of Agriculture-Bldg, Sinsuat Ave., Cotabato City	Marina Wahab, Regional Manager pcaxivarmm@yahoo.com.ph Telfax: (064) 421-6680 Tel No. (064) 421-8973
PhilFIDA Region 9	National Highway, Tuburan District, Pagadian City	Alex A. Jaducana Regional Director fida_region9@yahoo.com 0917-6264171
PhilFIDA Lanao Sur	Lao Bldg, Cadayonan II, Marawi City	Armalia R. Abdulmanan Provincial Fiber Officer
Academia		
MSU Marawi City	Marawi City	Dr. Habib W. Macaayong MSU System President
MSU Tawi-Tawi	Boheh Sallang, Sanga-Sanga, Bongao, Tawi-Tawi	Chancellor Mary Joyce Z. Guinto-Sali, Ph.D. chancellor.tcto@msu.edu.ph 0917.310.7843
UAS	Brgy. Mirab, Upi, Maguindanao	Engr. Sukarno Datukan, School Administrator sbdatukan@yahoo.com

Department of Trade and Industry – BARMM

Comprehensive Capacity Development Project for the Bangsamoro (CCDP)

Japan International Cooperation Agency