



Market Assessment and Value Chain Analysis for Coffee

in Sulu & Basilan Provinces



Funded by
the European Union



Bangsamoro Agri-enterprise Programme -Leveraging and
Expanding Agri-Aqua Production in Bangsamoro (BAEP-LEAP)



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Bangsamoro Agri-enterprise Programme
**Leveraging and Expanding Agri-Aqua Production in Bangsamoro
(BAEP-LEAP)**

The Leveraging and Expanding Agri-Aqua Production in Bangsamoro (LEAP) project is a component of the Bangsamoro Agri Enterprise Programme (BAEP), funded by the European Union. This project aims to bolster economic development in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) by focusing on enhancing the coffee and seaweed value chains in Basilan, Sulu, and Tawi-Tawi. The project is implemented by People in Need, the Maranao People Development Center Inc. (MARADECA), and the United Youth of the Philippines-Women.

LEAP implements targeted interventions to improve access to inputs, extension services, and financial products while also upgrading processing facilities. The project places significant emphasis on fostering coordination among various value chain actors and promoting inclusive participation by women, youth, and indigenous communities.

Utilizing advanced market value chain assessment methodologies in collaboration with academic institutions, LEAP aims to map, analyze, and enhance stakeholder coordination within these sectors. The project supports the formation of farmer and fisherfolk clusters, providing tailored coaching and extension services to elevate production quality and facilitate scaling.

Additionally, LEAP enhances access to financial services and technical support, focuses on improving post-harvest processing facilities to achieve halal certification, and integrates climate services to boost product quality and income.

The study Market Assessment and Value Chain Analysis for Coffee is a thorough evaluation of the coffee market and its value chain in BARMM, focusing on Basilan and Sulu. The study aims to provide actionable insights that will inform project strategies and interventions. The findings will support LEAP's goal of improving the livelihoods of coffee farmers, promoting economic development, and fostering inclusive growth within BARMM.

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Market Value Chain Assessment Report for Coffee in Sulu & Basilan Provinces

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3rd Floor VHW Building

Veterans Avenue Extension, Zone III

Zamboanga City

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List of Acronyms and Abbreviations

AAGR	Average Annual Growth Rate
AAIIBP	Al Amanah Islamic Investment Bank of the Philippines
ACDI/VOCA	Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance
ACEF	Agricultural Competitiveness Enhancement Fund
ACSP	Agricultural Credit Support Project
AEWs	Agriculture Extension Workers
AFF	Agriculture, Fishery, And Forestry
ARBOs	Agrarian Reform Beneficiaries Organizations
ARMM	Autonomous Region in Muslim Mindanao
ASEAN	Association of Southeast Asian Nations
ATI	Agricultural Training Institute
BAEP	Bangsamoro Agri-Enterprise Programme
BAFS	Bureau of Agriculture and Fisheries Standards
BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BAS	Bureau of Agricultural Statistics
BASULTA	Basilan, Sulu and Tawi-Tawi
BBA	Bai Bithaman Ajil
BBL	Bangsamoro Basic Law
BBR	Blending Before Roasting
BCAA	Barista And Coffee Academy of Asia
BCICC	Basilan Coffee Industry Cluster Council
BFAD	Bureau of Food and Drugs
BLGF	Bureau of Local Government Finance
BMC	Business Model Canvass
BOI	Board of Investments
BOL	Bangsamoro Organic Law
BPI	Bureau of Plant Industry
BUSC	Basilan Ulama Supreme Council Foundation, Inc.
CAC	Codex Alimentarius Commission
CAO	City Agriculture Office
CARL	Comprehensive Agrarian Reform Law
CARP	Comprehensive Agrarian Reform Program
CBU	Capital Build Up
CDA	The Cooperative Development Authority
CFIs	Countryside Financial Institution
CGMP	Current Good Manufacturing Practice
CLOA	Certificate of Land Ownership Award
COC	Certificate of Compliance
COD	Cash on Delivery

CPR	Certificate of Product Registration
CRVA	Climate Resiliency and Vulnerability Assessment
CSA	Climate Smart Agriculture
CSF	Common Shared Facilities
CSI	Coconut Scale Insects
CSSF	Common Shared Service Facilities
DA	Department of Agriculture
DA-BAR	Department of Agriculture-Bureau of Agricultural Research
DAF	Department of Agriculture and Fisheries
DAF	Department of Agriculture and Fisheries
DAR	Department of Agrarian Reform
DBP	Development Bank of The Philippines
DO	Department Order
DOH	Department of Health
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
EU	European Union
FDA	Food And Drugs Authority
FGDs	Focus Group Discussions
FOs	Farmers Organizations
FSCPC	Federation of Sulu Coffee Producers Cooperative
FSCPC	Feasibility Study
Ft	Feet
GAP	Good Agricultural Practices
GCB	Green Coffee Bean
GCB	Green Coffee Beans
GEARD	Growth Enhancement Approach Towards Regional Economic Development
GFI	Government Financing Institutions
GHP	Good Hygienic Practices
GMP	Good Manufacturing Practices
GRDP	Gross Regional Domestic Product
Ha	Hectare
HACCP	Hazard Analysis Critical Control Points
HCBS	Halal Certifying Bodies
HCDF	High-Value Crops Development Fund
HEIs	Higher Education Institutions
HVCDP	High Value Crops Development Program
ICO	International Coffee Organization
IEC	Information, Education and Communication
IMB	Ijarah Muntahia Bittamleek

IPDM	Integrated Pest and Disease Management
I-PLAN	Investments for AFMP Planning at The Local and National Levels
IPs	Indigenous Peoples
ISO	International Organization for Standardization
KCC	Kankitap Consumers Cooperative
Kg	Kilogram
KIIs	Key Informant Interviews
LAEs	Large Agribusiness Enterprises
LARBECO	Lamitan Agrarian Reform Beneficiaries Cooperative
LBP	Landbank of the Philippines
LCDFI	Landbank Countryside Development Foundation, Inc
LEAP	Leveraging and Expanding Agri-Aqua Production in Bangsamoro
LGC	Local Government Code
LGU	Local Government Unit
LTO	License to Operate
MAFAR	Ministry of Agriculture Fisheries and Agrarian Reform
MARADECA	Maranao People Development Center Inc.
MinHA	Mindanao Halal Authority
MMCHBI	Muslim Mindanao Halal Certification Board, Inc.
MMOs	MAFAR Municipal Offices
MOLE	Ministry of Labor and Employment
MSD	Market Systems Development
MSEs	Micro and Small Enterprises
MSMEs	Micro, Small and Medium Enterprises
MSU	Mindanao State University
MSWD	Ministry of Social Welfare and Development
MT	Metric Ton
MTIT	Ministry of Trade, Investments and Tourism
NC	National Certification
NCIP	National Commission on Indigenous Peoples
NCMF	National Commission of Muslim Filipinos
NDRRMC	National Disaster Risk Reduction and Management Council
NFEP	National Fisheries Extension Plan
NGAs	National Government Agencies
NGO	Non-Government Organizations
NIPAS	National Integrated Protected Areas System
NSIC	National Seed Industry Council
OCT	Original Certificate of Title
ODAs	Official Development Assistance (ODA)
OMA	Office of Muslim Affairs
OMAS	Offices of Municipal Agriculture Services
OMAS	Organic Matter

OPAG	Office of Provincial Agriculturist
OSAMA	Osaha Sin Anak Miskin Association
PAB	Philippine Accreditation Bureau
PAFES	Provincial Agriculture and Fisheries Extension Services
PAP-MPC	People's Alliance for Progress Multipurpose Cooperative
PCA	Philippine Coconut Authority
PCAF	Philippine Council for Agriculture and Fisheries
PCE	Philippine Coffee Expo
PCIC	Philippine Crop Insurance Corporation
PCIP	Provincial Commodity Investment Plans
Php	Philippine Peso
PhilCOSED	Philippine Ligawasan Marsh Conservation and Socio-Economic Development
PhilMec	Philippine Center for Postharvest Development and Mechanization
PIN	People in Need
PMSD	Participatory Market Systems Development
PN	Promissory Note
PNS	Philippine National Standards
POs	Peoples Organizations
PRDP	Philippine Rural Development Project
PSA	Philippine Statistics Authority
PTMA	Production, Technical and Marketing Agreement
PWDs	Persons with Disabilities
RA	Republic Act
RAAC	Risk Asset Acceptance Criteria
RAAC	Risk Asset Acceptance Criteria
RAPID	Rural Agro-Enterprise Partnership for Inclusive Development
RCB	Ripe Cherry Beans
RDIs	Research and Development Institutions
REM	Real Estate Mortgage
RFOs	Regional Field Offices
RSBSA	Registry System for Basic Sectors in Agriculture
SAFP	Sustainable Agribusiness Financing Program
SCA	Specialty Coffee Association
SCARBDC	Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative
SEC	Securities and Exchange Commission
SEED	Sustainable Enterprises for Economic Development
SOCCSKSARGEN	South Cotabato, Cotabato, Sultan Kudarat, Sarangani and General Santos
SSF	Shared Service Facility
SSOP	Sanitation Standard Operating Procedures
STILL	Short Term Loan Line
SUCs	State Universities and Colleges

TARBIDC	Tumahubong Agrarian Reform Beneficiaries Integrated Development Cooperative
TARBMC	Tairan Agrarian Reform Beneficiaries Multi-Purpose Cooperative
TCT	Transfer Certificate of Title
TESDA	Technical Education and Skills Development Authority
TL	Term Loan
TOT	Training of Trainers
UCZP	Ulama Council of Zamboanga Peninsula
UN FAO	Food and Agriculture Organization of The United Nations
UnYPhil-Women	United Youth of the Philippines-Women
USAID	United States Agency for International Development
USD	US Dollars
USDA	United States Department of Agriculture
UWARBMPC	United Workers Agrarian Reform Beneficiaries Multi-Purpose Cooperative
VC	Value Chain
VCA	Value Chain Analysis
WTO-SPS	World Trade Organization's Sanitary and Phytosanitary

Operational Definition of Terms

Coffee associations and cooperatives

These are agri-fishery associations and cooperatives which have members who are either into coffee farming, processing, or trading.

Coffee farmer

A natural person whose livelihood is the cultivation or the production of coffee, either by himself/herself, or primarily with the assistance of his/her immediate farm household, whether the land is owned by him/ her, or by another person under a leasehold or share tenancy agreement or arrangement with the owner thereof, and whether for sale or for home consumption.⁸

Coffee farm labourer/worker

A natural person who renders service for valtheir employee or labourer in a coffee farm or coffee enterprise, regardless of whether his/ her compensation is paid on a daily, weekly, monthly or 'pakyaw' basis and includes regular and seasonal labourer or coffee farm worker but generally excludes workers such as drivers, tractor drivers, motorized farm equipment operators, office clerks, veterinarians, tractor drivers, motorized farm equipment operators, office clerks, veterinarian, and others in agriculture enterprise farms.⁹

Coffee trading

The act of buying and selling coffee products either in a physical or virtual setting.

Coffee youth

A person whose age ranges from 12 to 30 years old and is engaged in any coffee-farming related activity or a member of a coffee farming household. In general, this also refers to someone who attended or is currently enrolled in a formal or non-formal agri-fishery related course, and/or participated in any agricultural activity/program.¹⁰

Plantation coffee farms

Are defined as those having an area of more than two hectares.

Postharvest activities for coffee

These include, but are not limited to, drying, sorting, grading, storing, and handling coffee produce and such other activities as washing, fermenting, dehulling, depulping, etc.¹¹

Postharvest and processing facilities for coffee

These include, but are not limited to, dehullers, depulpers, dryers, moisture meters, sealers, weighing scales, roasting equipment, storage facilities, processing plants, warehouses, buying stations, market infrastructure and transportation facilities.¹²

Primary processing

Refers to the physical alteration of ripe coffee cherries with or without mechanical facilities such as drying.¹³ Green coffee bean (GCB) is a product of primary processing.

Secondary processing

Refers to the physical and chemical transformation of semi-processed agricultural or fishery products. Roasted coffee beans, ground coffee, and powdered coffee are products that are processed in secondary ways.

Smallholder coffee farms - Are defined as those with an area of two (2) hectares or less.¹⁴

8 Source of basic information: RSBSA

9 Ibid

10 Ibid

11 AFMA provides the basic definition of postharvest activities.

12 AFMA provides the basic definition of postharvest and processing facilities.

13 Basic definition of primary processing taken from AFMA

14 Basic definition of small farms from Rapsomanikis, UN FAO (2015); Lowder, et. Al (2016)



Executive Summary

Coffee farming, processing and trading bring economic benefits to the coffee VC stakeholders and the local economy in terms of employment, income and revenue generation. Based on 2021 production data, the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) ranked 3rd contributing 17.3% to total national coffee production. During the same year, the provinces of Sulu and Basilan ranked 3rd and 8th among the top 10 coffee producing provinces with a share of 8.1% and 2.4%, respectively.

Aside from its economic benefits, coffee and coffeeshops locally termed as “kahawahan” in Tausug are integral to the Islamic culture as this is where old folks and professionals alike gather not only to drink coffee but to hear from each other and where their social fabric and cohesion are formed and strengthened. Nonetheless, the coffee industry in both provinces is beset with challenges that need to be addressed accordingly.

This coffee value chain and market assessment in the provinces of Basilan and Sulu principally aims to identify gaps in the market supply and demand for coffee as well as establish standards that will serve as a guideline in the process of the implementation of the Leveraging and Expanding Agri-Aqua Production in Bangsamoro (LEAP) Project in the Basilan-Sulu-Tawi-Tawi (BASULTA) area of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). In particular, it looks into the following: identifying coffee farming practices performed as well as current technologies used for production and processing; mapping and segmentation of the coffee value chain (VC) stakeholders - input suppliers, farmers, processors, traders and organisations; analyzing current market trends; identifying role of marginalized sector including indigenous peoples (IPs), women, youth and persons with disability (PWDs); and, identifying challenges and opportunities as well as corresponding recommendations in each segment of the coffee VC.

In crafting this report, primary data gathering was employed through key informant interviews (KIIs) and small group discussions amidst dearth of secondary data at the provincial and municipal levels. Among the key tools adopted included the value chain analysis approach and the framework, the Participatory Market Systems Development (PMSD) toolkit, the Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance (ACDI/VOCA) gender toolkit, and the PIN’s Good Practice Guides on Market- Analysis.

The report is divided into 10 sections. Section 1 contains the introduction. A comprehensive overview of the coffee industry, including coffee varieties, types of products, production trends and climate change implications to coffee farming are discussed in Section 2. Section 3 focuses on the nature and structure of the coffee industry in both provinces, covering the value chain mapping, key value chain segment functions and players, role of the marginalized sectors, interfirm relations and collaborations, and income of different VC actors. Markets and market opportunities are tackled in Sect, which includes, market

access, market channels, market geographical flow, and market dynamics. Section 5 presents the support services, both technical and financial including crop insurance, provided by the coffee VC enablers. Presented in Section 6 are the formal as well as informal rules including socio-cultural norms surrounding the coffee industry in Basilan and Sulu.

Section 7 provides an extensive list of opportunities as well as challenges in all segments of the coffee, VC ranging from the limitations faced by input supplies, farm management and other agricultural practices, harvesting and drying practices, access to modern technologies and equipment for farming and processing, access to financing both regular and Islamic, product certifications, packaging and labelling, market access, the role of marginalized sectors, data generation and information management, research and development, individual capacities and organizational development, among others. These challenges ought to be resolved via a multi-stakeholder and convergence approach amidst the myriad enablers including the NGAs, the BARMM government, the LGUs, the government and private financing institutions, the SUCs and private HEIs, the RDIs, the local and international NGOs, the ODAs, as well as the organized coffee groups and cooperatives. Summarised in Table 1 the below table are the identified constraints and opportunities alongside the corresponding suggested priority interventions necessary to minimize, if not eliminate, the constraint and maximize the opportunities at hand per segment of the coffee VC.

CONSTRAINT/OPPORTUNITY	RECOMMENDED INTERVENTION
INPUT PROVISION	
<ul style="list-style-type: none"> • Limited access to locally available high-quality and disease-resistant planting materials due to: <ul style="list-style-type: none"> » Unaccredited community-based nurseries do not comply with protocols. » No BPI-accredited nursery in the province (planting materials distributed by the government came from BPI-accredited nurseries in mainland Mindanao or Luzon) » High mortality rate and loss due to mishandling of planting materials and seedlings during transportation and distribution <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> • Availability of seedlings and farm input distribution projects and programs from government and NGOs • Presence of coop-owned nurseries though not yet BPI-accredited (e.g., SCARBIDC in Basilan, KCC in Sulu) 	<ul style="list-style-type: none"> • Facilitate accreditation with the DA-BPI of at least one (1) nursery in each province. • Support the establishment of more accredited private nurseries • Facilitate farmers access to preferred varieties (e.g., Basilan farmers specifically requested for Excelsa variety as it more apt for warmer temperatures) as well as to disease and pest resistant farmer's access to preferred varieties (e.g., Basilan farmers specifically requested the Excelsa variety as it is more apt for warmer temperatures) as well as to disease and pest-resistant coffee varieties. • Conduct of trainings training on nursery operation and management, proper handling, and acclimatization of seedlings during delivery and distribution • Conduct further research on preferred and suitable varieties.
<p>Some planting materials distributed by the government are still of low quality.</p> <ul style="list-style-type: none"> » Issues on availability of true to type planting materials for different varieties especially for Arabica, Liberica and Excelsa as the distributed planting materials turned out to be other varieties than what was declared during seedling distribution 	<ul style="list-style-type: none"> • Maximize the use of tagging technology. <ul style="list-style-type: none"> » Promote procurement and purchase of coffee seedlings with QR tags from accredited coffee nurseries
<p><u>Opportunity:</u></p> <ul style="list-style-type: none"> • Availability of technology on QR-based tagging of coffee seedlings indicating nursery source, variety and clone, and details on inspection 	
<ul style="list-style-type: none"> • High cost of fertilizers <ul style="list-style-type: none"> » Limited supply of organic fertilizer appropriate for coffee farming » Some farmers in Sulu reported poor soil quality and decreasing soil fertility. <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> • Availability of technology on integrated nutrient management (i.e., use agricultural waste products and other indigenous materials that can be used as fertilizer) 	<ul style="list-style-type: none"> • Conduct of trainings on: <ul style="list-style-type: none"> » adoption of integrated nutrient management technology » organic matter management, and/or production of "organic" fertilizers, vermi compost, etc. • Facilitate access to financing and credit

- Lack of/Limited access to other farm inputs, implements and modern farm tools and equipment (e.g., tractors) and corresponding training for usage.
 - » Not all farmers have access to concerned government agencies.
- Opportunity:**
 Availability of modern farm equipment and implements
 Presence of enablers (e.g., NGAs, NGOs) that provide farm inputs and implements for free.
 Presence of coffee farmer groups such as cooperatives
- Assist small farmers to have access to farm inputs and tools/equipment/implements (e.g., hand tractors, gasoline powered grass cutter, chainsawgasoline-powered grass cutters, chainsaws for removal of old trees, etc.)
 - » Link farmers to enablers providing farm inputs and farm implements.
 - » Tractors and other big farm equipment maybe provided to farmer groups and be operated as a common service facility (CSF)
 - Introduce modern farming equipment to coffee farmers.
 - Provide training on the usage of modern farming equipment.
 - Facilitate access to financing and credit

FARMING

- Declining coffee production and productivity in Basilan (-2% AAGR during the last seven years based on PSA data, though statements from concerned VP players indicate a much higher decline) and unmaximized production potentials in Sulu (only 0.05% AAGR during the same period).
 - » Limited technical know-how on in sustainable coffee farming
 - » Low awareness and low application of Good Agriculture Practices (GAP) by coffee farmers (non-practice of pruning, non-rejuvenation of coffee trees, old coffee trees were not rehabilitated and rejuvenated especially in Basilan, immoderate diversification)
 - » Crop and land conversion (PSA data reveals a reduction in area and tree density with AAGR of -0.28% and -0.51% during the last seven years in Basilan which could be even higher in actual as well as -0.004% and -0.08% in Sulu, respectively)
 - » When coffee farmers in Basilan don't know how to rehabilitate old and senile coffee trees and buying prices are low, some farmers cut down their coffee trees and change to other crops
 - » Very limited access of small coffee farmers to modern coffee farming technologies
 - » Poor farm planning
- Provide additional trainings on coffee GAP to cover all farmers including via the "coffee mentors" approach
 - Enhance IEC activities to enhance awareness on the benefits of practicing coffee GAP
 - Learning site visits to model farms practicing coffee GAP
 - Provide financial and technical assistance to enable farmers to apply their learnings from coffee GAP trainings in their farms.

Opportunity

- Availability of Philippine National Standards for Coffee (i.e., Philippine Coffee GAP)
- Availability of IEC materials such as coffee production booklets, charts, and video instructional materials.
- Availability of coffee model farms in other parts of Mindanao that practice sustainable and even organic (e.g., Bukidnon)
- Availability of "coffee mentors" training approach (e.g., ACDI/VOCA) where farmer leaders are trained to be trainers to other farmers

<ul style="list-style-type: none"> • Despite some farms claiming to practice coffee GAP, there are no GAP certified farms in both provinces » Some farmers cited the absence of a GAP certified body in their province as the reason. 	<ul style="list-style-type: none"> • Strengthen IEC on gap certification process, eligibility, requirements, etc. • Link farmers practicing GAP to GAP certifying body
<p><u>Opportunity</u></p>	
<ul style="list-style-type: none"> • DA has already established processes and made the certification accessible at the RFO levels. • GAP certification is free of charge 	
<ul style="list-style-type: none"> • Lack of irrigation infrastructure and support services and/or limited water source during dry season 	<ul style="list-style-type: none"> • Link farmers to sufficient irrigation infrastructure and techniques for their coffee farms • Installation of small-scale irrigation system (Shallow Tube Well) • Promote rain harvesting technology and facilitate access to necessary technical and financial support.
<ul style="list-style-type: none"> • Occurrence of coffee pests & diseases (e.g., leaf spot, sooty molds, aphids during rainy season) • “Cocolisap” infestation in Basilan pushed farmers to cut down infected coconut trees destroying the coffee trees in the process, too as the fallen coconut trees fell on the former 	<ul style="list-style-type: none"> • Pest & disease surveillance/ monitoring and management for coffee (and coconut in Basilan) • Access to disease resistant coffee varieties • Train more farmers on IPDM • More IEC on adoption of IPDM
<p><u>Opportunity:</u></p>	
<ul style="list-style-type: none"> • Availability of technology on integrated pest and disease management or IPDM (e.g., use of non-toxic fungus <i>Beauveria bassiana</i> to control coffee pod borer infestation, aphids, etc.) 	
<ul style="list-style-type: none"> • No climate mitigation measures implemented (unpredictable weather condition affects farm productivity and income) » Lack of financial and technical capacity to adopt climate proofing strategies. 	<ul style="list-style-type: none"> • Promotion of climate-smart agriculture technologies designed for coffee production. » IEC activities • Trainings • Promote other climate proofing strategies (i.e., crop insurance, rainwater harvesting) • Facilitate access to financing.
<p><u>Opportunity</u></p>	
<ul style="list-style-type: none"> • Basilan and Sulu are relatively safe to from the threats of the predicted temperature rise compared to the other coffee producing provinces in mainland Mindanao 	
<ul style="list-style-type: none"> • Stray animals destroy coffee plants. 	<ul style="list-style-type: none"> • Access to fencing materials such as animal wires
<p><u>Opportunity</u></p>	
<ul style="list-style-type: none"> • Presence of enablers that provide free access to animal wires 	
<ul style="list-style-type: none"> • Declining interest among coffee farmers whenever buying prices become extremely low 	<p>Continuously educate coffee farmers, through IEC activities, on the benefits of reviving the coffee industry in the island</p> <ul style="list-style-type: none"> • More value-adding activities
<ul style="list-style-type: none"> • Some farmers are still not practicing the “pick red” harvest method due to low awareness of its impact to quality of beans and/or security threats (in the case of Sulu) 	<ul style="list-style-type: none"> • Regular conduct of trainings and re-training on good postharvest handling
<p><u>Opportunity:</u></p>	
<ul style="list-style-type: none"> • Philippine National Standards for Coffee Products 	

- Non-availment of crop insurance due to:
 - » Many farmers are not informed of its availability (no PCIC office in BASULTA, nearest office is PCIC Field Office 9).
 - » Some farmers perceived the requirements to be cumbersome.
- Information drive on free crop insurance for small farmers and its requirements

Opportunity:

Insurance application, submission and approval can be all done online

POSTHARVEST/PROCESSING

- Limited access to modern postharvest and processing materials/ equipment/machinery/ facilities
- Many are still using the traditional method
- Facilitate access to modern postharvest facilities & processing equipment near production sites (all-weather/solar dryer, warehouse, de-pulper, dehuller, roasting machine)
- Promote common shared facilities for postharvest handling and processing

Opportunity:

Presence of enablers that assist coffee farmers and processors

- Low quality of GCB from some local sources
 - » Limited technical and financial capacity of small farmers on the correct harvest, postharvest and processing techniques and process processes (i.e., picking, fermentation, drying, sorting, etc.)
- Conduct of training on postharvest technologies and processes (i.e., coffee fermenting, depulping, drying, GCB sorting, sensory analysis, coffee cupping, etc.)
- Production/Re-production and distribution of corresponding IEC materials
- Assist coffee farmer groups such as cooperatives to access enough capital as start-up to buy the red cherry beans from its members and for the cooperative to perform the postharvest process to achieve better and uniform quality of GCB as well as consolidate volume during trading.

Opportunity

Government financing institutions or GFIs,(GFIs), and private lending institutions (i.e., Landbank of the Philippines, cooperatives, microfinance, etc.)

- Limited supply of coffee beans as raw material for processing
 - Some processors source out their raw materials from as far as Bukidnon, Lanao del Sur, and Cotabato
 - One processor slowed down while another exit from the coffee processing business
- Continuous facilitation/assistance for coffee farmers to increase production and productivity

Opportunities

Presence of enablers providing different support services, technical or financial, to coffee VC actors

- Insufficient supply of electricity and water for processing
 - Promote renewable energy utilization (e.g., solar via solar panel modules, etc.)
 - Advance notice in case of scheduled power interruptions

- Some processors especially the small ones are not yet GMP compliant
 - » Limited knowledge and skills among small processors and processing workers on GMP
- Train more processing workers on GMP and other food-related processing training courses (e.g., roasting competency, barista training, etc.)
- Assist processors to be GMP compliant by upgrading existing or building new GMP compliant facilities

Opportunity:

- Philippine National Standards for Coffee Products
- GMP standards are already in place

Absence of FDA-LTO registration and compliance with other market standards and certifications (e.g., halal, fair-trade, organic, etc.) delimiting command for better price and wider market access including institutional buyers and export	<ul style="list-style-type: none"> • Provide assistance, technical and/or financial, especially among small processors for compliance to certifications and other market standards to: (1) enable marketing of products to more institutional buyers such as supermarkets and mall; and (2) command better prices
<p><u>Opportunity:</u></p> <ul style="list-style-type: none"> • Presence of enablers providing technical and financial assistance • Presence of Halal certifying bodies within BARMM 	<ul style="list-style-type: none"> » Close handholding, especially among small player,s until they get registered and/or certified • Conduct capacity buildingcapacity-building activities to prepare processors onaudits processing audit and other monitoring-related protocols toward traceability and certifications
Lack of proper packaging and labelling among small and start-up processors	<ul style="list-style-type: none"> • Conduct training on product packalabelling labeling » Following the standards (I.e., labels should reflect variety, nutrient contents, etc.) • Facilitate access to necessary financial resources
Limited utilization of coffee wastes and “excess” for food and non-food products	Tap academe and research partners on the conduct of research for the utilization of wastes and by-products

MARKETING/TRADING

<ul style="list-style-type: none"> • Limited market access » Small holders and even local associations and cooperatives in Sulu have no direct access to bigger markets and corporate buyers » Coffee products that reached other countries are not via the formal trading channels yet but as pasalubong items only 	<ul style="list-style-type: none"> • Facilitate direct access/trading partnerships to big and corporate buyers/processors such as Nestle without passing through other middlemen or consolidatorsAggregators » Via coffee cooperatives and the coffee federation/ councils • Assist small holders to maximize online platforms • Strengthen marketing and promotion of local coffee products both to local and export markets thru the conduct of the following:
<p><u>Opportunity:</u></p> <ul style="list-style-type: none"> • Availability of online platform / e- commerce (i.e., Shopee, Lazada, facebook marketplace, tiktok, etc.) • Presence of Coffee Council and Federation • Availability of private institutions, NGOs such as ACDI/VOCA-PhilCafe, coffee enthusiasts’ groups such as Philippine Coffee Guild with considerable Mindanao-based number of members organizing different coffee advancement and market promotion activities 	<ul style="list-style-type: none"> » business matching activities » participation to coffee trade fairs, exhibits, fora and congress » marketing and promotion trainings

<ul style="list-style-type: none"> • Non-transparency of prices between buyers and farmers due to: <ul style="list-style-type: none"> • Lack of periodic coffee bean grading as one of the bases for pricing and trading • No clear GCB buying system and guidelines in place • Non-conformity and contrasting perception on existing quality standards for coffee between farmers and traders/buyers which often results to price disagreement • No institutional market information source resulting to low and/or variable buying price <p>Note: Volatile prices, particularly the prolonged low buying prices in Basilan in the past discouraged many coffee farmers that they shifted to other crops like rubber.</p>	<ul style="list-style-type: none"> • Conduct of trainings on coffee bean grading and cupping to a wider audience • Regular conduct of coffee bean grading on coffee farmers’ produces to assess quality and recommendations can be formulated • Encourage direct trade partnerships between coffee producers and buyers/processors • Establish institutional source of market information • Explore possibility of institutionalizing marketing agreements among producers and buyers that would include “pricing matrix” and specs depending on quality/ quantity of coffee for certain period which will be coupled with regular monitoring and assistance from LGUs, MTIT and other enablers
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Opportunity

- Availability of certified Robusta and Arabica Q-graders based in Mindanao, from private, to conduct coffee beans grading officially

<ul style="list-style-type: none"> • Presence of many middlemen traders who control price (low buying price) » Middlemen traders are earning more than that of the farmers 	<ul style="list-style-type: none"> • Paradigm shift in the mindset of farmers that they also have the potential to be traders • Encourage farmers to do more value adding (those who don't have the current technical and financial capacity can do so via their affiliated cooperatives) rather than as mere raw material supplier • Encourage direct trade partnerships between coffee producers and buyers/processors
<ul style="list-style-type: none"> • Poor coffee beans (dried and GCB) quality (more concern in Sulu) • Resulting to low buying price as traders are hesitant to buy poor quality produce • Opportunity • Regular conduct Philippines Coffee Quality Competition (PCQC) • Enabling policies and standards for coffee products are in place (e.g., PNS/BAFS on Philippine Coffee GAP, PNS for GCB, and Agricultural Machinery for Coffee Processing etc.) 	<ul style="list-style-type: none"> • Conduct of trainings and re-trainings on good postharvest practices and technologies • Facilitate access to improved and modern postharvest equipment and technologies • Strengthen coffee marketing system • Requires strong government and private agencies collaboration backed-up by appropriate policies • Support and facilitate participation of qualified coffee players to the PCQC to further increased awareness on better quality coffee beans
<p>Traders face limited supply of coffee beans</p> <p><u>Opportunities</u> Presence of enablers providing different support services, technical or financial, to coffee VC actors</p>	<p>Continuous assistance for coffee farmers to increase productivity</p>
<ul style="list-style-type: none"> • High transportation cost <p><u>Opportunity</u></p> <ul style="list-style-type: none"> • Good reputation of Sulu's single origin Robusta coffee 	<p>Adopt product consolidation for economies of scale</p> <ul style="list-style-type: none"> • Capitalized on this as one the unique selling proposition (USP) in marketing the coffee products of Sulu and Basilan • Encourage more value adding activities especially among farmers via their cooperatives and associations

ENABLING ENVIRONMENT

<p>Varying degree of technical capacities among individual coffee farmers and organizational maturity among coffee farmer groups and other coffee VC groups</p> <ul style="list-style-type: none"> » Groups in their infancy stage lack organizational capacities. » Well-established groups still need regular training and re-training. <p><u>Opportunities</u></p> <p>Presence of enablers providing different support services, technical and/or financial, to coffee VC actors LGUs and government agencies (e.g., MAFAR, MTIT, DA, DTI, PCA, etc.)</p> <ul style="list-style-type: none"> • Government financing institutions or GFIs and private lending institutions (i.e., Landbank of the Philippines, cooperatives, microfinance, etc.) • International non-government organizations (i-NGOs) and/or official development assistance or ODA (i.e., WB, EU, Oxfam, UNIDO, UNDP, IOM, ACDI/VOCA etc.) 	<p>Continuous/Regular capacity building activities and trainings, including Training of Trainers (TOT), on any of the following as needed:</p> <ul style="list-style-type: none"> » GAP on coffee » Organic coffee farming » Nursery management » Pest and disease management » Processing (roasting) » GMP » Packaging and labeling » Coffee farming and processing machine and equipment maintenance (mechanics) » Marketing » Barista for coffee shops » Cooperative management » Leadership » Organizational diagnosis » Financial management » Record keeping » Basic bookkeeping » Basic accounting » Basic project proposal making » Feasibility studies » Certifications (e.g., BFAD-LTO, FDA, halal, organic, etc.) <ul style="list-style-type: none"> • Aside from trainings, provide close mentoring and handholding until enterprise is registered/ accredited/certified » If it's possible for MOST and MTIT to provide extension workers who are capable in providing technical for compliance of requirements until registration/ accreditation is completed • Facilitate linkage of coffee VC players to enablers that provide necessary assistance • Explore "big brother – small brother" linking between and among more developed groups and the those in their infancy stage of organizational development
<p>No coffee technicians</p>	<ul style="list-style-type: none"> • Deployment of agriculture extension workers (AEWs) specifically coffee technicians • Conduct of TOTs
<p>Not all farmers are RSBSA registered yet constraining them to avail of assistance such as the free crop insurance for small farmers</p>	<ul style="list-style-type: none"> • More information awareness on RSBSA • Facilitate RSBSA registration expansion

- Coffee industry data gaps at the provincial level
 - » Limited and/or inaccurate data on suitability, production volume per variety, number of coffee farmers (no disaggregation per municipality, by sex, by vulnerability group) and coffee associations/cooperatives, production, and processing capacities, among others
 - » Inconsistent data between and among the PSA viz MAFAR viz OPAG
 - » Institutional constraints faced by concerned BARMM agencies and LGUs due to lack of manpower; transition from the Autonomous Region for Muslim Mindanao or ARMM to BARMM; change in agency set-up as the MAFAR now is a fusion of two agencies (Department of Agriculture and Fisheries or DAF Department of Agrarian Reform or DAR); total replacement of staff from ARMM to BARMM
- Building on from the results of this coffee VC assessment, conduct comprehensive mapping and profiling of the coffee industry at the provincial level (e.g., production per variety; census of coffee farmers, coffee processors, and traders; coffee suitability and expansion areas; production capacities, etc.)
 - » Convergence effort between and among enablers (LGU, NGAs, NGOs, academe and private sector) including the triangulation of data as basis for development planning, investment programming, and monitoring and evaluation
- Digitalize coffee profiling

Opportunity:

- New tools available like color-coded maps, Climate Resiliency and Vulnerability Assessment (CRVA) of DA, landscaping program of DA, food consumption and quantification project
- Best practices on private-public sector partnership on systematic and digitized data gathering in other parts of Mindanao and the country

Absence of a Management Information System in the coffee industry.

- Putting up of a digitalized information management system for coffee that is regularly updated and maintained
 - » Awareness of price, demand & supply
- Facilitate access to financing (e.g., loans, grants, aids, etc.) / Link small VC players to financing institutions including Islamic Financing
 - » Strengthen IEC activities on availability of regular, microfinancing and Islamic financing windows in the area
 - » Capacitate VC players especially farmers on how to comply requirements
- Promote usage of common shared service facilities (CSSF)
- Limited access to financing (small coffee VC players have limited financial capacities amidst rising cost of farm inputs and implements as well as other processing materials and equipment)
- Some VC players are of the perception that it is difficult and cumbersome to access formal banking institutions such as Landbank due to numerous eligibility criteria and requirements as well as long processing period.
- Coffee VC players not aware of presence of Islamic financing through AAIBP in Sulu
- VC players especially farmers are not aware of available Islamic financing in the area

Opportunity

- Internal value chain financing among coffee players like cooperatives and processors (credit provision to coffee farmers from input suppliers or buyers)
- Presence of GFIs and private lending institutions (i.e., Landbank of the Philippines, AAIBP, cooperatives, microfinance groups, etc.)

<p>No accredited SUCs as “coffee academy” to offer Coffee Production NC II Program from TESDA</p>	<ul style="list-style-type: none"> • Tie up with existing SUCs such as MSU Jolo • Conduct documentation study/ Research of coffee production in Sulu » Tap academe and other research institutes • Establish network and partnership with other RDIs, SUCs and other private HEIs which has existing related studies and research on coffee for collaborative undertakings: <ul style="list-style-type: none"> » existing cupping laboratories » research centers
<p><u>Opportunity:</u> Presence of Mindanao State University (MSU) Jolo Limited, if not absence, of R&D for coffee in Basilan and Sulu</p>	
<p><u>Opportunity</u> Availability of existing research and collaboration with private sector, academe and other enablers for the advancement of coffee industry (i.e., between and among Nestle Phil, ACDI/VOCA, and academic institutions such as the Sultan Kudarat State University in Sultan Kudarat, Davao del Sur State College in Davao del Sur, and Central Mindanao University in Bukidnon, etc.)</p>	
<p>Traditional gender role biases and discrimination</p> <ul style="list-style-type: none"> • Limited opportunities to education, training, finance, technology and markets among women and the youth 	<p>Conscious effort of integrating and mainstreaming the needs and providing equal opportunities and chances for meaningful participation of IPs/ethnic groups, women, children, the youth and even the PWDs in all aspects related to coffee farming, processing, and trading/marketing.</p> <ul style="list-style-type: none"> • Education/training • Financing • Technology • Market • Business and development processes (e.g., planning, project identification, implementation, monitoring and evaluation)
<ul style="list-style-type: none"> • Difficulty of access and social exclusion among PWDs » Lack of accessible pathways and specialized equipment that are PWD-friendly on farms and during processing 	<ul style="list-style-type: none"> • Consider physical limitations and needs of PWDs when designing facilities and distribution of assistance
<ul style="list-style-type: none"> • Weak interfirm relations especially in Sulu among the different coffee VC players across different levels or segments in the chain. » While individual farmers have strong relationships among themselves, there is an apparent disconnect between them and the individual traders and processors. 	<ul style="list-style-type: none"> • Strengthen convergence platforms (e.g., Basilan Coffee Industry Cluster Council, Federation of Sulu Coffee Producers Cooperative) • Organize activities for coffee farmers, traders and processors to meet and discuss concerns of mutual interest (e.g., coffee cluster assemblies, coffee congress, etc.)

Section 8 provides a brief conclusion on the findings of the coffee value chain and market assessment in both provinces. Such that while the coffee industry in Sulu is robustly growing maintaining the province’s ranking among the top coffee producing provinces in the country, the coffee industry in Basilan has gone through the phase of being a sunset industry with rubber and coconut topping over its priority commodities. This is evident in two of its coffee processors sourcing their dried cherry beans from other provinces in Mindanao. Nonetheless, with the remaining coffee trees that need rejuvenation and rehabilitation and the renewed interest currently shown by farmers in the province, the Basilan coffee industry has now begun to become a sunrise industry again.

The coffee VC players remain optimistic that with the renewed interest in coffee farming among farmers and with new coffee farmers coming in, coupled with the right mix of technical and financial assistance including peace dividends from these previously war-torn areas, the coffee industry in both provinces will eventually achieve its full potentials.

Finally, Sections 9 and 10 contain the list of references as well as the annexes.

01

Introduction

1.1. Background

Coffee is a popular beverage that is extensively consumed worldwide with over three (3) billion cups of coffee consumed daily.⁸ Filipinos alone are said to consume an average of 0.3 – 0.5 kg of green coffee bean (GCB) per year during the last two decades.⁹ Moreover, coffee consumption in the country is predicted to grow at a 4.4% annual rate to reach 7.4 million 60-kilogram bags in 2025, outpacing that of the rest of Asia.¹⁰

Over 60 countries produce coffee worldwide. The coffee industry accounts for more than half of export revenue from the top producing coffee countries. Being one of the most traded agricultural commodities worldwide, the International Coffee Organization (ICO) estimated an annual earning of 200 billion US dollars (USD) from coffee in 2020.¹¹ More than 125 million people depend on it for their livelihood worldwide.¹² About 25 million smallholder coffee farming households produces 80% of the world's coffee output.¹³ Coffee farming, processing, trading, transportation, and marketing employ at least 300,000 Filipinos nationwide.¹⁴

The agriculture, fishery, and forestry (AFF) sector contributed 35.4% to the gross regional domestic product (GRDP) of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) in 2022 at constant 2018 prices.¹⁵ Under its AFF sector, coffee and seaweed value chains (VCs) were identified as particularly suitable in terms of market demand and opportunities for strengthened production, quality and “lead crop centered farming/ fishing” approach.¹⁶

Specific to coffee, BARMM is among the top producing regions in the Philippines. Based on 2021 production data, BARMM ranked 3rd next to South Cotabato, Cotabato, Sultan Kudarat, Sarangani and General Santos (SOCCSKSARGEN) Region and Davao Region, respectively, contributing 17.3% to total national coffee production.¹⁷ During the same year, the provinces of Sulu and Basilan ranked 3rd and 8th among the top 10 coffee producing provinces with a share of 8.1% and 2.4%, respectively. The coastal area with a few gentle slopes and a hilly interior of Basilan as well as the ideal climate and fertile soil of Sulu, just like the rest of the Southern Philippines, are ideal¹⁸ for coffee production. Moreover, the Tausugs of Sulu and Yakans of Basilan consider coffee essential to their meals and integral to their culture.

The prospect for coffee production in the country remains bright with the Philippine coffee market projected to grow annually by 8.20% in the next five years.¹⁹ Moreover, the development of the coffee industry in Basilan and Sulu serves as a peace dividend in these previously war-torn areas. In view of this and the integral role of coffee in Islamic culture, the coffee producing areas such as that of Basilan and Sulu must position strategically to maximize and reap the

8 Source: The Beat of the Global Coffee Industry retrieved from <https://coffeeknowledgehub.com/en/news/the-beat-of-the-global-coffee-industry>

9 Source: Philippine Statistics Authority

10 Source: Philippine Coffee Industry Roadmap

11 Source: Coffee Development Report of ICO as cited in “The Beat of the Global Coffee Industry”.

12 Source: Fairtrade Foundation, accessed from: <https://www.fairtrade.org.uk/farmers-and-workers/coffee/#:~:text=Coffee%20is%20one%20of%20the,on%20coffee%20for%20their%20livelihoods.>

13 Source: UN FAO, accessed from <https://www.fao.org/markets-and-trade/commodities/coffee/en/>

14 Source: PRDP Mindanao-wide Value Chain Analysis and Competitiveness Strategy for Green Coffee Beans

15 Source: PSA, openstat

16 Source: Leveraging and Expanding Agri-Aqua Production in Bangsamoro (LEAP) Project Document

17 Source: PSA, 2022 Selected Statistics on Agriculture and Fisheries; measured in terms of dried berries with pulp, all varieties.

18 Source: Philippine Coffee Board

19 Source: <https://www.statista.com/outlook/cmo/hot-drinks/coffee/philippines>

benefits from the growing coffee industry.

Meanwhile, the Leveraging and Expanding Agri-Aqua Production in Bangsamoro (LEAP) Project aims to strengthen the resilience of agriculture and aqua-culture value chains, particularly coffee, seaweed, and their intercropping opportunities, in the island provinces of Basilan, Sulu and Tawi-Tawi (BASULTA). In support to the European Union (EU) funded Bangsamoro Agri-Enterprise Programme (BAEP), the LEAP Project is implemented by the People in Need (PIN)²⁰ in partnership with its consortium partners Maranao People Development Center Inc. (MARADECA) and United Youth of the Philippines-Women (UNYPHIL-Women).

In line with the EU's thrust to support BARMM's economic development, this proposed action of the LEAP Project will work with various VC actors of the coffee and seaweeds industry in the said three BARMM provinces.

1.2. Rationale

In the initial internal assessment and interviews conducted by PIN and its consortium partners among the coffee and seaweeds VC actors in Basilan, Sulu, and Tawi-Tawi, gaps around access to nurseries and multipurpose processing facilities, financial services and product quality assistance were identified. Also, special needs around leveraging intercropping opportunities and strengthening involvement of women, indigenous peoples (IPs), the youth and persons with disabilities (PWDs) in the VCs were highlighted.

Based on the above initial findings, the LEAP Project is designed to be a 36-month comprehensive action to strengthen the quality and diversity of production through improved access to inputs, extension services, processing facilities and financial services.

To specifically identify gaps in the market supply and demand of the coffee VC as well as establish standard that will serve as a guideline in the process of the implementation of the LEAP Project, this value chain analysis or market assessment of the coffee VC in the provinces of Sulu and Basilan was undertaken.

1.3. Objectives

This assessment report specifically aims to:

1. Look into coffee farming practices performed and current technologies used for production and processing;
2. Map and segmentize the coffee value chain (VC) stakeholders - coffee input suppliers, farmers, processors, traders and organizations;
3. Analyze current industry trends;
4. Identify role of the marginalized sector - IPs, women, youth and PWDs; and,
5. Identify challenges and opportunities as well as put forward recommendations in each segment of the coffee VC.

Following the above objectives, this market/VC assessment for the coffee VC in Sulu and Basilan is organized as follows:

A. Overview of the Coffee Industry;

I. Product Description

- Coffee plant and varieties
- The coffee beverage and its product forms
- Factors affecting coffee beans and beverage quality

II. Environment and Climate Change

Production Trend

- Volume of production (historical trend since 2016)
- Factors affecting production (including area planted, yield, density, etc.)
- Value of production
-

B. Nature and Structure of the Coffee Industry;

I. Value Chain Map

II. Key Value Chain Segment Functions

- Input provision
- Farming (including agricultural practices performed and current technologies used for production)
- Postharvest/processing (including current technologies used for processing, classification and grading, etc.)
- Trading/final sale)

III. Key Value Chain Segment Actors (stakeholder mapping)

- Input suppliers
- Farmers (including cooperatives and associations)
- Processors

²⁰ PIN is an international non-governmental organization founded in the Czech Republic, that has been providing aid in troubled regions and supporting respect for human rights since 1992. It is one of the largest NGOs in Central Europe and has implemented hundreds of humanitarian and development projects in crisis and poverty-stricken areas across Europe, Asia, Africa, and Central America.

- Traders
- Certifiers

IV. Role of the Marginalized Sectors

- IPs
- Women
- Youth
- PWDs

V. Interfirm Relations and Collaborations

VI. Income and Profits

C. Markets and Market Opportunities;

I. Market Access

- Market channels
- Market geographical flow

II. Market Opportunities and Dynamics

III. Price Trends

D. Enablers and Support Services;

- Financial Support
- Crop Insurance
- Non-Financial Support
-

E. Formal and Informal Rules and Socio-Cultural Norms;

I. Formal Rules, Regulations and Policies

- National laws and department orders
- International coffee agreements
- Global food safety and quality management and standards
- National standards
- Local sanitation ordinances

II. Informal Rules and Socio-Cultural Norms

F. Priority constraints/gaps and Opportunities (per segment of the VC); and,

G. Priority Interventions (per segment of the VC).

1.4. Methodology

1.4.1. Frameworks and Tools

A combination of the following tools and frameworks are used in this market/VC assessment for coffee:

- Value Chain Analysis (VCA) approach and framework;**
- Practical Action's Participatory Market Systems Development (PMSD) toolkit;**
- Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance (ACDI/VOCA)'s gender toolkit; and,**
- PIN's Good Practice Guides on Market- Analysis.**

Value Chain Analysis (VCA) Approach and Framework

As defined, a VC is a "full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final customers, and final disposal after use."²¹

In terms of functions, a VC is a sequence of related business activities (segments) from the provision of specific inputs for a particular product to primary production/farming, processing, marketing and up to the final sale to consumers. While in terms of players or actors, a VC is the set of enterprises (operators) performing these functions, linking and coordinating producers, processors, traders and distributors of a particular product. The upper portion white hexagon boxes in Figure 1 show typical VC segments with their functions right below each box while those in yellow boxes are the corresponding VC actors in each segment. Meanwhile, the grey box at the bottom represents the enablers - those government or non-government entities not directly involved in the industry but providing enabling support services, whether financial or non-financial (technical), to the VC actors.

²¹ Source: <https://globalvaluechains.org/concept-tools>

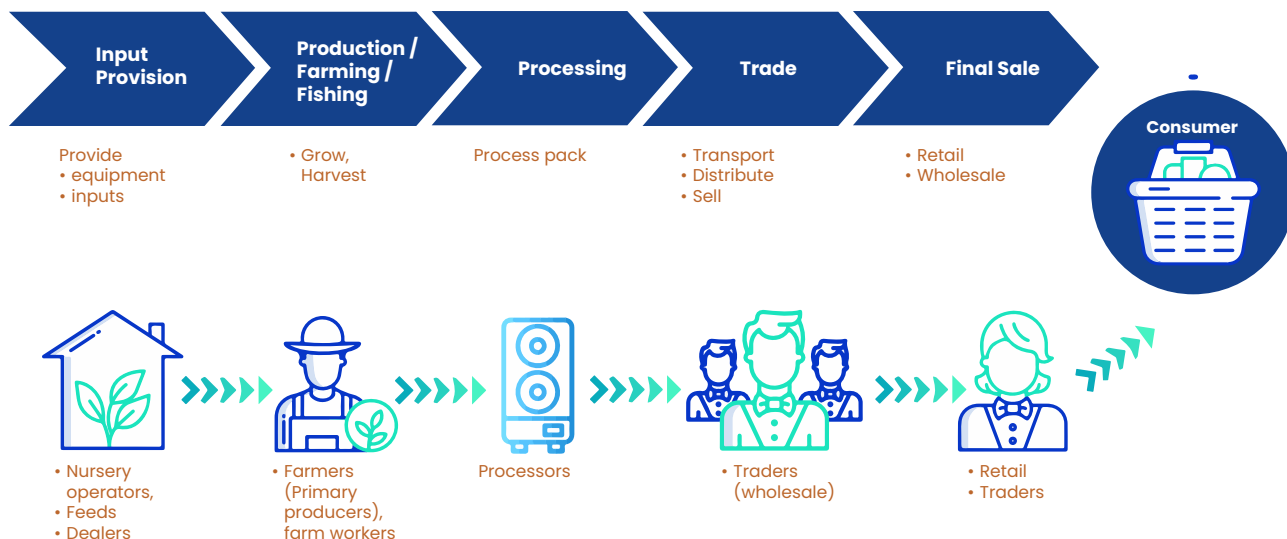


Figure 1. The VC Illustrated in terms of Functions and Actors²²

The VCA Framework in Figure 2 is used as one of the guides in crafting this market/VC assessment for the coffee value chain in Basilan and Sulu. This framework guides in analyzing: the main actors as well as other stakeholders—from input suppliers to farmers to processors to traders/retailers to the enablers; the markets within and outside BARMM; as well as the relationships between players, power dynamics between firms, their access to learning and innovation, and the distribution of benefits throughout the chain. Furthermore, it guided in the development of competitiveness strategies and directions while defining specific interventions for chain development.

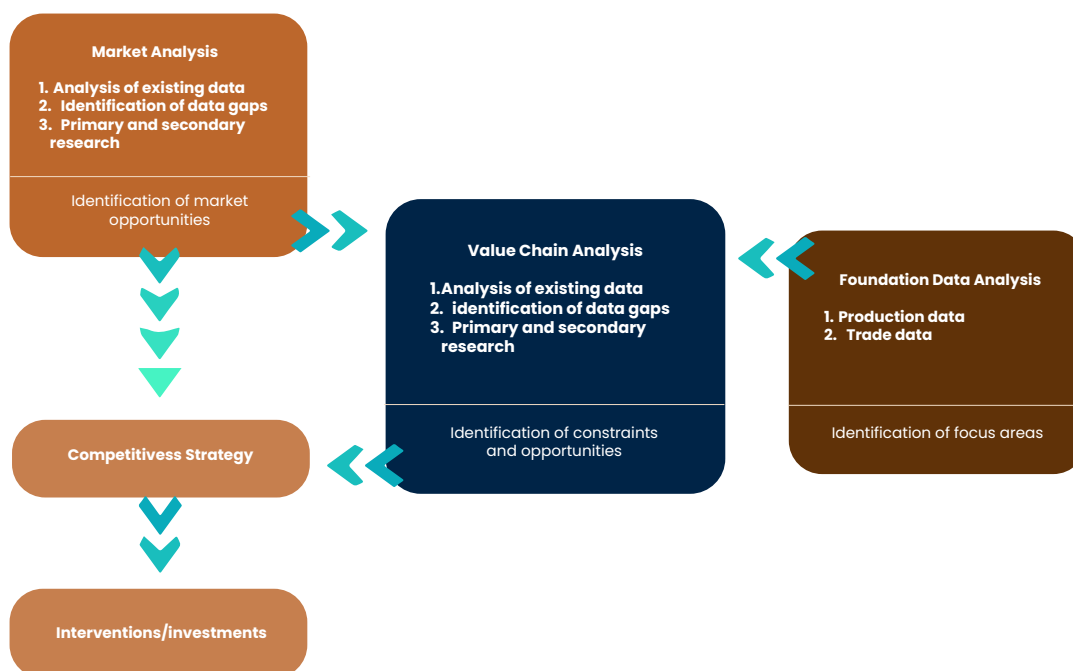


Figure 2. VCA Framework²³

Simply put, the use of the value chain (VC) approach brings about the following advantages:

1. Systemic, holistic approach focuses on competitiveness of the whole VC;
2. All operators can trust that others will do their part of the upgrading task, i.e., that the concerted approach of collective action will work;
3. Market-oriented approach, because all upgrading action along the chain is guided by the demand of final consumers;
4. Participatory approach where the stakeholders determine the strategy and are responsible for the implementation; and,
5. Coordinated support by various enablers avoids duplication and ensures impact.

²² Source: PRDP Mindanao I-PLAN Component

²³ Source: USAID VCA Framework as adapted from the DA-PRDP Mindanao Cluster I-PLAN

Practical Action's Participatory Market Systems Development (PMSD) toolkit

The Practical Action's PMSD is hinged on the four principles of: systems thinking; facilitation; participation; and gender. While the PMSD shares largely the features of mainstream Market Systems Development (MSD), PMSD's key difference is on the principle of participation in two ways. For one, the PMSD centers on "understanding, engaging and empowering marginalized groups as legitimate market actors in their own right."²⁴ The second difference lies on PMSD support to "local market actors to develop relationships and to collaborate to address systemic problems."²⁵ Relatedly, the PMSD milestones are depicted in Figure 3.

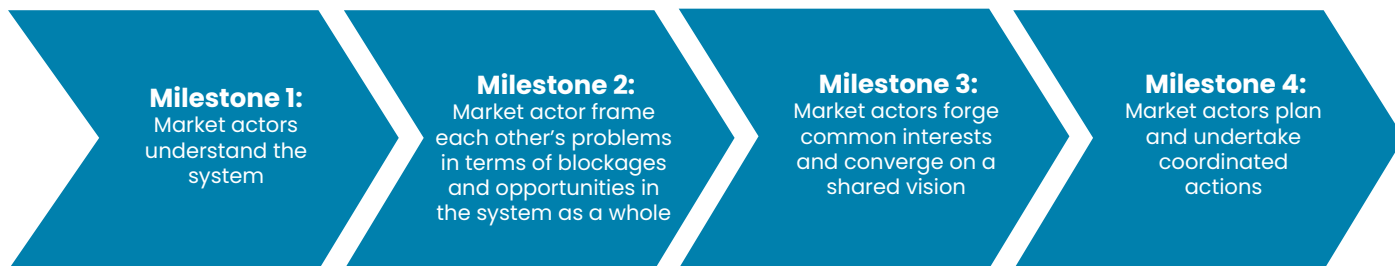


Figure 3. The PMSD Milestones²⁶

ACDI/VOCA's Gender Toolkit

This assessment of the coffee VC likewise mainstreams the 10-steps for operationalization of a gender analysis as contained in ACDI/VOCA's gender toolkit as follows:

- a. Know your client;
- b. Do background research (desk review);
- c. Define research questions for fieldwork;
- d. Design fieldwork tools and techniques;
- e. Respect informants;
- f. Organize and analyze data;
- g. Check expectations with clients;
- h. Use of charts and graphs to analyze and present findings; and,
- i. Make recommendations that are specific, action-oriented and realistic.

Also utilized is the PIN's Good Practice Guides on Market- Analysis.

1.4.2.Data Sources

This market/VC assessment utilizes both secondary and primary data. Desk review was conducted based on readily available secondary data on production, trade and market trends which were sourced from government agencies such as: the Philippine Statistics Authority (PSA); the Department of Agriculture (DA); the Ministry of Agriculture Fisheries and Agrarian Reform (MAFAR); MAFAR Provincial Offices in Basilan and Sulu; MAFAR Municipal Offices (MMOs); the Ministry of Trade, Investments and Tourism (MTIT) and its provincial offices in Basilan and Sulu; and, the Local Government Unit (LGU)-based Office of Provincial Agriculturist (OPAG) and Offices of Municipal Agriculture Services (OMAS) in both provinces, among others.

Primary data were likewise collected. Key informant interviews (KIIs) and focus group discussions (FGDs) were conducted on the ground with key stakeholders including coffee farmers and processors groups/cooperatives and enablers. A detailed list of the individuals and groups/agencies interviewed and consulted is attached as Annex A.

²⁴ Source: Practical Action, <https://practicalaction.org/pmsd-toolkit/pmsd-vs-market-systems/>

²⁵ Ibid

²⁶ Ibid

Table 1. Summary of KII Respondents for Basilan and Sulu, by Sex

COFFEE VALUE CHAIN ACTOR	NUMBER OF KEY INFORMANTS					
	Basilan			Sulu		
	Female	Male	Total	Female	Male	Total
Farmers / Farm workers	2	6	8	4	5	9
Processors	1	4	5	1	2	3
Traders	2	1	3	1	3	4
Coffee Associations and Cooperatives	2	3	5	2	4	6
Total	7	14	21	8	14	22

Survey questionnaires and/or guide questions for KIIs/FGDs customized for each typology of player/stakeholder were formulated while being mindful of the tools used for this assessment such as the VCA framework, PMSD and ACDI/VOCA's gender toolkit. Attached as Annex B are the KII questionnaires for coffee farmers, processors, traders, enablers, and cooperatives.

Detailed municipal level production figures during the last five (5) years were likewise solicited from the MAFAR and OPAG offices Basilan and Sulu. Specifically, a template attached as Annex C was provided for easy data gathering from the respective MMOs of Basilan's nine (9) municipalities and two (2) cities and Sulu's 19 municipalities.



1.4.3. Review of Relevant Documents

Useful and relevant reference materials and publications were referred to such as the Philippine Coffee Industry Roadmap 2021-2025, the Mindanao VCA for Green Coffee Beans by the Department of Agriculture-Philippine Rural Development Program (DA-PRDP), and the respective Provincial Commodity Investment Plans (PCIPs) of Basilan and Sulu.

1.4.4. Validation Activities

In view of the barangay elections in October 2023, small group follow through discussions were conducted on the ground, instead of a full large group to verify/validate data gathered from the questionnaires. This is separate from the validation workshop that PIN spearheaded to gather feedback from experts and different stakeholders about the given VCs, discuss different solutions and create momentum of engagement of participants into collaborative action.

1.5. Scope and Limitations

1.5.1. Geographic Scope

While the entire BARMM is a top coffee producing region, this assessment only covers Basilan and Sulu of the BASULTA provinces. Basilan and Sulu are two (2) of the five (5) provinces in the BARMM. Both provinces are in the southern part of the Philippines within the Sulu Archipelago. Shown in Table 2 are the key features of these two provinces.

While Isabela City, also proposed to be renamed as Isabela de Basilan City, is administratively under Region 9, it still appears in some parts of the report since it still plays a crucial role in the coffee VC of the province given that it is still within the contiguity of the province.

Table 2. Geographic, Administrative and Demographic Features of Basilan and Sulu Provinces

Feature	Basilan	Sulu
Geographical Location	Located between latitudes 6°15' and 7°00' and longitudes 121°15' and 122°30'	Lies approximately between latitudes 5o25' and 6o30' North and between longitudes 119o 35' and 122o 0'East
Climate	<ul style="list-style-type: none"> • Outside the typhoon and earthquake belts • Type IV climate (rainfall evenly distributed throughout the year) 	
Land Area	1,327.23 sq km	1,673.77 sq km
Capital	Lamitan City (de jure) ²⁷ Isabela City (de facto) ²⁸	Jolo
Municipalities, Cities & Barangays	11 Municipalities (9 mainland, 2 island) 2 Component Cities 255 Barangays	19 Municipalities (11 mainland, 8 island) 410 Barangays

Source: PSA, PCIP Sulu, PCIP Basilan

1.5.2. Data Limitations

- No detailed information of coffee farmer statistics and production both from the MAFAR Provincial Offices and LGU-based Office of the OPAG and OMAS.
- » Contributory factors: transition from the Autonomous Region in Muslim Mindanao (ARMM) to BARMM and from Department of Agriculture and Fisheries (DAF) to MAFAR. In 2019, the ARMM was replaced by the BARMM with the ratification of the Bangsamoro Organic Law or BOL, also referred to as the Bangsamoro Basic Law or BBL, by virtue of Republic Act 11054. The regional departments of the former ARMM were then reorganized into Bangsamoro ministries. The former DAF now becomes the MAFAR. There was likewise a complete change of personnel in all government agencies during the transition from ARMM to BARMM.
- Inconsistency of data from OPAG, MAFAR Provincial Offices and the PSA. This was resolved via triangulation of data.

²⁷ Since Isabela City chose to separate from the ARMM, now BARMM, in the 2001 plebiscite, Lamitan has been designated as the new capital of Basilan in the same year.

²⁸ Isabela, though geographically is part of Basilan province, is administratively not part of the BARMM but of Region IX (Zamboanga Peninsula)

02

Overview of the Coffee Industry

This section contains the description of coffee as a plant and beverage, supply/production analysis and description of environmental factors, including climate change, that affect coffee production.

2.1. Product Description

2.1.1. The Coffee Plant

Belonging to the genus *Coffea*, the coffee plant is a member of the Rubiaceae family of tropical plants and shrubs that also contains 500 genera and over 6,000 other species³². The coffee cultivated species range in size from tiny shrubs to 32-foot-tall trees.

All coffee species are woody evergreens with color of the leaves ranging from yellowish to dark green with hints of copper or purple. Coffee leaves can vary in size and form, although the majority are oval or elliptical.

White blooms and scarlet berries or “cherries” with seeds are produced by the shrub. The “beans” from which the coffee beverage is prepared are the seeds of the berries. About 95% of coffee berries contain two seeds³³. Coffee cherries turn bright red or yellow, glossy, and firm when mature and ripe (Figure 9).



Figure 9. Mature and Ripe Coffee Berries³⁴

³² Source: The Coffee Plant accessed at <https://www.roastandpost.com/coffee-encyclopedia/from-tree-to-cup/the-coffee-plant/>

³³ Source: Coffee Cherry accessed at <https://www.britannica.com/plant/coffee-cherry>

³⁴ Source: Google photos

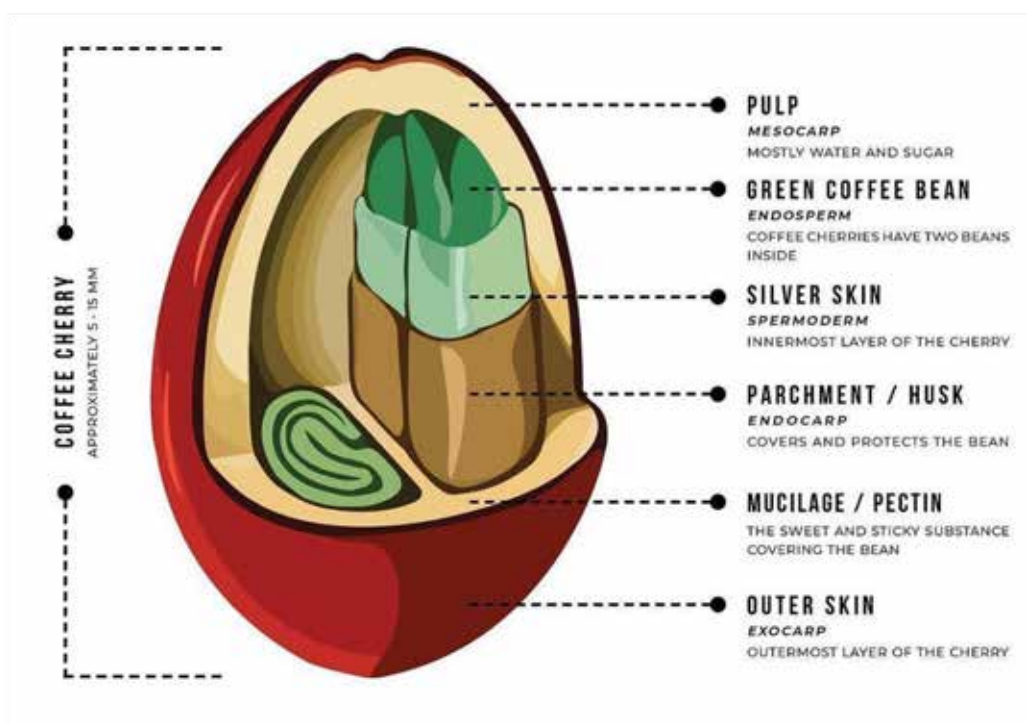


Figure 10. Parts of a Coffee Berry³⁵

2.1.2. Coffee Plant Varieties

Among the thousands of coffee varieties, only four (4) are found to be commercially important and grown – Arabica (*Coffea arabica*), Excelsa (*Coffea excelsa*), Liberica (*Coffea Liberica*) and Robusta (*Coffea caniphora*). Tables 3 and 4 show the summary of key physical features and profiles of these varieties while Figure 11 and Figure 12 portrays the physical appearance of the respective coffee plant and bean varieties when roasted, respectively.

Table 3. Summary of Key Features and Physical Characteristics of the Four Commercially Important Coffee Varieties

PARAMETERS	ARABICA	EXCELSA	LIBERICA	ROBUSTA
Country of Origin	Ethiopia	Central Africa	Liberia	Uganda
Leaves	Wavy leaf margins; light green leaf color and thin leaves	Wide leaves, thicker than Robusta; thinner, smoother and more rounded than Liberica; young leaves are usually shiny with bronze-violet color	Thicker than Excelsa and twice as long as Arabica	Thin with more wavy margins
Root System	Deep	Deep	Deep	Shallow
Plant Height	3 meters	3 meters	Upright with straight trunks, can grow up to 9 meters	Large umbrella-shaped; 4.5 meters
Flowers	White and creamy with short pedicles	Large and white with 4-6 petals	White with 4-6 petals	White with 5-6 petals
Genetic make-up	Self-fertile	Self-fertile	Self-fertile	Infertile
Inflorescence	Self – Pollination (with some degree of outcrossing)	Self – Pollination	Self-pollination	Cross pollination

35 Source: Google Photos

Fruits	Early bearer at 2 to 3 years after transplanting	Starts in 3 years after transplanting; Borne in heavy cluster, varying in size and usually bigger than Arabica but smaller than Liberica	Starts in 3 years after transplanting; borne in singly or in small clusters	Commence on its 3rd year from transplanting; borne in heavy cluster
Flower to Ripe Cherry	9 months	10-11 months	10-11 months	9-10 months

Source of basic data: ATI

Table 4. Profile of the Four Commercially Important Coffee Varieties

COFFEE VARIETY	WORLDWIDE PRODUCTION	FLAVOR PROFILE	COMMON USAGE	CAFFEINE CONTENT
Arabica	60-70%	Mild, aromatic	Roasted and Ground	0.8 - 1.4%
Excelsa	7%	Distinctively tart, fruity, dark	Blending	10-11%
Liberica	2%	Aromatic, almost floral and fruity with full and slightly smoky/woody taste	Blending	12
Robusta	30%	Strong, bitter	Soluble coffee	1.7 - 2.5%

Sources of basic data: Coffee Quality Institute or CQI, International Coffee Organization or ICO, PRDP Mindanao VCA for Coffee



Figure 11. Comparative Physical Features of the Top 4 Commercially Important Coffee Varieties³⁶



Figure 12. Physical Appearance of Roasted Bean of the Top Four Commercially Important Coffee Varieties³⁷

All the four top varieties are found in the BARMM region. Based on production statistics from PSA and MAFAR-Sulu and KII from coffee farmers in the province, Sulu has all the four commercially important coffee varieties. While the PSA data (see Section 2.3.1) shows that Basilan only produces Arabica, Excelsa and Robusta, KII from Basilan coffee farmers revealed that they also grow and produce Liberica coffee.

Table 5. Coffee Varieties in Basilan and Sulu

PROVINCE	ARABICA	EXCELSA	LIBERICA	ROBUSTA
Basilan	✓	✓	✓	✓
Sulu	✓	✓	✓	✓

Source: MAFAR, PSA, KII

Sulu has its own single origin Robusta cultivar – the renowned Kahawa Sug which literally means Sulu coffee. The term kahawa comes from the Arabic word qahwah which means coffee while the term Sug refers to the old term of Tausugs which means “people of the current” as sug translates to sea curren³⁸. This cultivar was believed to have been introduced in the Sulu archipelago in 1860s by the late Prussian merchant mariner Herman Leopold Schück³⁹. Kahawa Sug takes pride of its not too bitter taste and is non-acidic owing to Sulu’s fertile soil.

During the Philippine Coffee Expo (PCE) 2023 in Pasay City, the Qahwa Sug Robusta brand of Kankitap Consumers Cooperative (KCC) of Sulu was showcased not only as single-origin coffee but more importantly as a symbol of hope and peace in the BARMM region. It also won 4th place under the Robusta coffee cupping category during the Philippine Coffee Expo 2022 in Davao City.

37 Google Photos

38 Polistico (2017)

39 Bueno (2016); Montemayor (2007).



Figure 13. Recognition of Sulu’s Robusta Single Origin Coffee During the Philippine Coffee Expo 2022

40

2.1.3. The Coffee Beverage

Aside from being one of the most popular beverages worldwide, coffee has a fascinating history. While it was believed to be introduced in the Arabian countries in 7th century⁴¹, the history of coffee may be traced back to Ethiopia in the 15th century, where natives established a custom of roasting and powdering wild coffee berries⁴².

2.1.4. Factors Affecting Coffee Beans and Beverage Quality

The main factor that determines whether coffee beans are classified as “fine/premium” is the presence of organic acids that formed during the tree’s growth stage up until the development of the cherries⁴³. Coffee quality is affected by both intrinsic (genotype, cropping system, and processing methods) and extrinsic (climate and soil) factors as shown in Table 6.

Table 6. Intrinsic and Extrinsic Factors Affecting Coffee Quality

EXTRINSIC FACTORS		INTRINSIC FACTORS	
1.	Climate <ul style="list-style-type: none"> • Temperature • Rainfall • Latitude/altitude 	1.	Genotype <ul style="list-style-type: none"> • Species/variety • Diversity • Adaptation
2.	Soil <ul style="list-style-type: none"> • Structure • Composition • pH 	2.	Cropping systems <ul style="list-style-type: none"> • Tree density • Shade • Pruning system
		3.	Processing Methods <ul style="list-style-type: none"> • Picking • Fermentation • Drying

Source: Barista and Coffee Academy of Asia (BCAA)

The Specialty Coffee Association (SCA) also came up with a Coffee Taster’s Flavor Wheel (Figure 14) which serves as the basis for coffee professionals to assess the flavors and aromas in coffee during coffee cupping. Coffee cupping is the process of tasting and smelling various types of freshly brewed coffee. Although it is a professional discipline, anyone can engage in it on a casual basis.

41 https://en.wikipedia.org/wiki/Arabic_coffee#:~:text=Some%20historians%20believe%20coffee%20was,in%20Yemen%27%20Sun%20monasteries.

42 <https://halalharamworld.com/is-coffee-halal/>

43 Source: PRDP Mindanao Coffee VCA



Figure 14. Coffee Taster's Flavor Wheel⁴⁴

2.1.5. Coffee Product Forms

After the ripe cherries are harvested from the plant, they undergo different value-adding stages depending on the desired value-added product form (Figure 15).



Figure 15. Different Coffee Product Forms⁴⁵

The common coffee product forms that are found and traded in the market are as follows:

1. Ripe cherry beans (RCB). This refers to the mature and ripe fresh and complete fruit of the coffee tree. While most coffee varieties turn red when ripe, some coffee varieties such as the Arabica and Robusta turn either red or

44 Source: SCA

45 Source: PRDP Mindanao Coffee VCA and google photos

yellow when ripe.

2. **Dried cherry beans with pulp.** The harvested coffee cherries are dried under the sun or through mechanical all-weather driers for further postharvest processing with the latter preferred over the former since it minimizes contamination and is climate resilient. Interchangeably used with the term “dried cherries”, this product form has still its pericarp intact. The dried cherry bean with pulp resembles the appearance of raisins. The PSA uses this as unit of measure for coffee tree yield over the years. Conversion rate from RCB to dried cherry beans is at an average of 50%.
3. **Green coffee beans (GCB).** GCB is a commercial term designating the dried seed of the coffee plant, disengaged from its external envelopes (exocarp, mesocarp and endocarp) either via the dry or wet process. This is the globally used unit of measure for coffee tree yield. From the PSA data on dried cherry beans with pulp and GCB, recovery rate from dried cherry beans with pulp to GCB is at an average of 50%. Other farmers would estimate the conversion rate within the 50-60% range. GCBs are the most traded coffee product form and are processed to roasted beans, ground, and powder/instant soluble coffee. See the different grading classifications of GCB in Section 3.2.3.
4. **Roasted coffee beans.** The GCBs are roasted to produce this product form. Recovery rate from GCB to roasted coffee bean is estimated at 80%⁴⁶ that a kilo of GCB will roughly translate to 800 grams. Roasted coffees are now further classified into light, medium and dark with each classification resulting to different color of the roasted bean, flavor, and the likes.⁴⁷ See the different characteristics of roasted coffee in Section 3.2.3.
5. **Ground coffee.** Ground coffee is derived from crushed roasted bean. Compared to soluble/powder coffee that is already fine in texture, ground coffee is course in texture and size. It is commonly used in coffee shops for blending and brewing. Some households also directly use it for consumption.
6. **Powdered or instant soluble coffee.** It is also grinded from roasted coffee beans, only this time it is fine in texture and size. Compared to roasted beans or ground coffee, instant soluble or powder coffee offers convenience and is typically less expensive for the consumers. One can typically find this coffee product form in the market produced by either the micro and small enterprises or by some large companies.

At present one can also find “blended” coffee, either in ground or powder/instant soluble form, in the market. It primarily refers to coffee products made from blends of various coffee varieties, including Arabica and Robusta.

There is also the so-called “civet coffee”. Civet coffees are processed from the ingested then excreted coffee beans by the civet. It is said that the civet’s stomach enzymes fermented the beans in the process.

Shown in Table 7 shows the summarized average conversion rate from one coffee form to another.

Table 7. Coffee Products Average Conversion Rate

COFFEE PRODUCTION FORM	AVERAGE CONVERSION RATE
RCB to Dried	50%
Dried to RCB	50%
GCB to Roasted	80%
Roasted to Ground	97%
Ground to Powdered	95%

Source of basic data: PSA, KIIs, PRDP Mindanao Coffee VCA

The Philippine Coffee Roadmap 2021-2025 summarizes the immediate uses and markets of each coffee product form as displayed in Table 8.

PRODUCT FORM	IMMEDIATE USE	MARKETS
Ripe Cherry Beans (RCB)	Freshly harvested coffee for post-harvest processing	Coops/ Traders for processing
Dried to RCB	For further processing - roasting, grinding, brewing, etc.	Institutional, Industrial
GCB to Roasted	For grinding	Industrial, Institutional
Roasted to Ground	For brewing/ immediate consumption	Institutional, Households
Ground to Powdered	For immediate consumption	Households, Institutional

Source: Philippine Coffee Roadmap 2021-2025

All common coffee product forms are found to be dominant in the BARMM too particularly in the provinces of Basilan and Sulu (Table _ and Figure 16). Though secondary in nature, civet coffee, locally known as Kahawa kubing, can be also found in Sulu produced by the Lupahsug Coffee Processing Services under the brand name Suluanos. Kubing in Tausug dialect refers to Sulu palm civet. A civet is a large nocturnal, long-bodied, short-legged carnivore of the

⁴⁶ PRDP Mindanao Coffee VCA

⁴⁷ <https://www.javapresse.com/blogs/buying-coffee/differences-between-light-medium-dark-roasted-coffee>

family Viverridae⁴⁸. Generally, civet coffees commands higher prices, about thrice than the ordinary coffee, due to the uncommon production means.

Table 9. Key Coffee Products Traded in Basilan and Sulu

REGION/ PROVINCE	RIPE/DRIED CHERRY BEANS	GREEN COFFEE BEANS	ROASTED COFFEE BEANS	GROUND COFFEE	POWDERED COFFEE	CIVET COFFEE
Basilan	☑	☑	☑	☑	☑	
Sulu	☑	☑	☑	☑	☑	☑

Source: PRDP Mindanao VCA for Coffee; KII

Roasted coffee



Powdered coffee⁴⁹

Figure 16. Some of the Coffee Product Forms and Brands from Basilan and Sulu⁵⁰

48 <https://www.britannica.com/animal/civet-mammal-Viverridae-family>

49 Source: Google photos

50 Source: Google photos



by Dennis Coffee, Sulu



by Herman & Co., Sulu



2.1.6. Coffee in the Islamic Culture

Coffee is an integral part of the Islamic culture all over the world. It is even believed that the name “coffee” itself was taken from the Turkish for “wine of the prophet,” suggesting that it was a holy beverage⁵¹. During gathering in coffee houses, Muslims drink coffee over fellowship and conversations. Also, coffee play an essential role in Islamic religious rites like Ramadan when it is served and drunk to break their fast.

The Sulu archipelago’s Tausugs are particularly known to be coffee lovers⁵². The Tausugs are among the biggest Muslim or Moro ethnic tribes in Mindanao. Coffee is commonly served black among Tausug households and kahawahans or local coffee shops. Hot coffee is frequently given with an additional empty cup so that one can pour the coffee back and forth between cups. This brings out the flavor of the coffee while also cooling it down. Morning and afternoon snacks or bangbang in these areas won’t be complete without coffee oftentimes served with a mix platter of Muslim delicacies locally called latal⁵³.

2.2. Environment and Climate Change

As discussed in Section 2.1.4, coffee production is largely influenced by a set of extrinsic factors including climate (rainfall, topography/elevation, and temperature) and soil (acidity/alkalinity, structure and composition). Arabica thrives in high elevations above sea level, particularly in areas where rain is plentiful. It is also delicate when it comes to pests and diseases. Meanwhile, Excelsa and Liberica flourish in hotter and harsher conditions and are more resistant to drought, pests and diseases. Table 10 shows the summary of agro-climatic requirements of each coffee variety.

Table 10. Agro-Climatic Requirements of Different Coffee Varieties

PARAMETERS/ FEATURES	ARABICA	EXCELSA	LIBERICA	ROBUSTA
Elevation (MASL)	>800-2,800	<100-600	<100-600	<20-800 600-800 Optimal
Slope	0-25°	0-25°	0-25°	0-25°
Temperature, °C	18-24	21-30	21-30	15-24
Sunshine requirements	Full/Partial shade	Full	Full	Full/Partial shade
Wind requirements	Slight	Slight	Slight	Slight
Relative humidity, %	75-90	70-90	70-90	75-85
Annual Rainfall (mm)	2,500-3,500	1,000-2,000	1,000-2,000	1,000-2,000
Typhoon	Relatively free	Relatively free	Relatively free	Relatively free
Soil Type	Silty, clay loam		Grow to wider soil types	Porous, well-drained
Soil pH	5.0-6.0	5.6-6.8	5.6-6.8	5.5-6.5
Soil depth, m	1.5	1.5	1.5	1.5

51 <https://halalharamworld.com/is-coffee-halal/>

52 Bueno (2016); Madarang (2018)

53 Tutoy (2019)

Organic matter (OM)	Rich in OM	Rich in OM	Rich in OM	Rich in OM
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Source: Coffee Techno Guide, ATI

Any change among the extrinsic factors, especially brought about by the changing climate, will have a significant impact on coffee production and productivity. As climate change alters crop physiology, land suitability and spread/occurrence of pests and diseases, it will impact on both the quality and quantity of coffee produce⁵⁴. Coffee is not suited for longer torrential rains and long droughts. Nonetheless, there are also foreseen and potential positive effects.

Table 11. Summary of Potential Effects to Coffee Production from Changing Climatic Conditions

ORGANIC CLIMATIC CONDITION	POTENTIAL EFFECT/IMPACT
Increase in temperature	Positive Effect/s: <ul style="list-style-type: none"> Faster ripening and development of the Arabica bean in higher altitudes Increase in pollination services Negative Effect/s: <ul style="list-style-type: none"> Lower harvest and yield in Robusta coffee (approximately 14% per degree of warming) Spread of pests and diseases
Drought	Negative Effect/s <ul style="list-style-type: none"> Increase mortality rate of coffee seedlings and plants Increased incidence of pests and diseases
Increase in rainfall (Heavy/Torrential rains)	Negative Effect/s <ul style="list-style-type: none"> Low yield The “bean belt” has average annual rainfall of 1 to 1.5 meters that is spread evenly throughout the year Increased incidence of pests and diseases
Elevated carbon concentration	Positive Effect/s: <ul style="list-style-type: none"> Potential yield improvements

Source: PRDP Mindanao VCA for Coffee

The study of Hijmas et. al. (2005) revealed that temperature shift in the coffee belt has already been felt, and it gets worse every year. The coffee belt’s annual average land temperature is currently 1.5 °C warmer than it was before industrialization, and it is predicted to keep rising (Figure 17). Since 1970, temperatures have been rising at a pace of around 0.2 °C every decade, and that rate is accelerating.

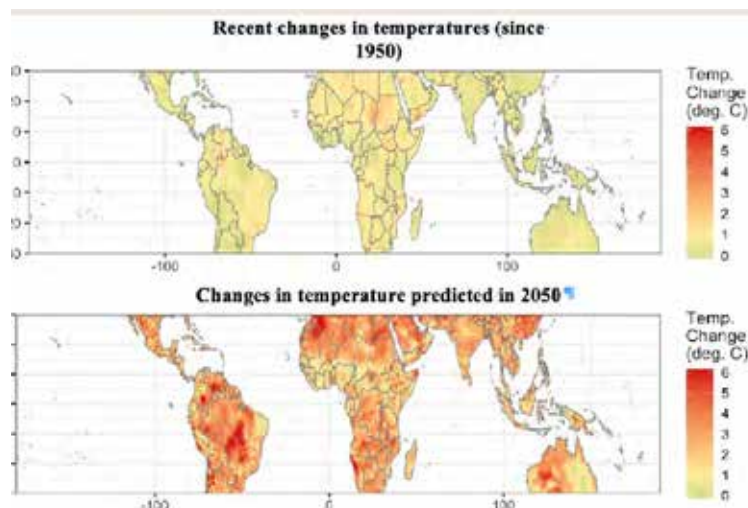


Figure 17. Changes in Climatic Temperature Already Experienced as of 2010 in the Coffee Belt⁵⁵

According to forecasts of coffee’s suitability through the year 2050, a significant portion of Mindanao’s low-lying regions - more especially, the low-lying regions of SOCCSKSARGEN, Caraga, Davao, and the Zamboanga Region - are at risk (Figure 18). These regions play a significant role in the production of coffee, with SOCCSKSARGEN and Davao accounting for more than half of all coffee produced in the Philippines. On a positive note, BARMM, which is the third top coffee producing region, is relatively safe from this risk. Thus, the provinces of Basilan and Sulu can capitalize and maximize this opportunity.

⁵⁴ Laderach and Lundy (2011)

⁵⁵ Source: Hijmas et. Al. (2005)

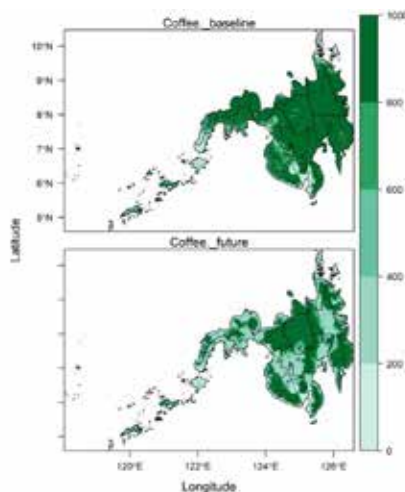


Figure 18. Climate Suitability of Coffee in Mindanao, 2023 vs 2050⁵⁶

The PRDP Mindanao Coffee VCA has extensively covered the adverse impacts of droughts and heavy rains to the different segments and actors of the coffee VC as summarized in Table 12. Those who don't have access to postharvest facilities such as all-weather driers will suffer the burnt more.

Table 12. Summary of Adverse Impacts of Droughts and Heavy Rains to the Coffee VC Actors

VC SEGMENT & ACTORS	ADVERSE IMPACT OF DROUGHTS AND HEAVY RAINS
Input Provision – Nursery Operators	Increased cost and reduced income due to costly replacement of dead stocks
Farming – Farmers	<ul style="list-style-type: none"> Increased cost and reduced income due to costly replacement of dead seedlings Reduced income due to low yield amidst high cost
Processing – Processors	<ul style="list-style-type: none"> Disrupted procurement plans, disrupted processing operations, underutilized processing equipment and facilities, and even job losses due to reduced supply and poor quality of raw materials (owing to rot and fermentation or aflatoxin). Reduced income
Processing – Processors	<ul style="list-style-type: none"> Un/underfilled orders due to low quality and quantity of produce, impacting future trading relations Delayed and costlier transport of goods from remote farms during heavy rains Reduced income

Source of basic data: PRDP Mindanao VCA for Coffee

Among the possible mitigation and adaptation measures seen to alleviate the adverse impacts of climate change on coffee production is the relocation of coffee plantations to more climatically suitable areas, irrigation and agroforestry. In fact, there is now an observed growing trend in the use of Climate Smart Agriculture (CSA) techniques in coffee production.⁵⁷

2.3. Production Trend

2.3.1. Volume of Production

Dried Coffee Berries with Pulp

In 2021, the BARMM produced 10,500.6 metric tons (MT) of all varieties of coffee contributing 17.3% to the total national coffee production (Figure 19). This made BARMM the third largest coffee producing region in the Philippines next to Region XII (SOCCSKSARGEN) and Region XI (Davao Region). Of the total BARMM production in the same year, Sulu topped with 47.0% share while Basilan came third with 13.6% share.

⁵⁶ Figure adopted from PRDP Mindanao VCA for Coffee

⁵⁷ Source: FAO

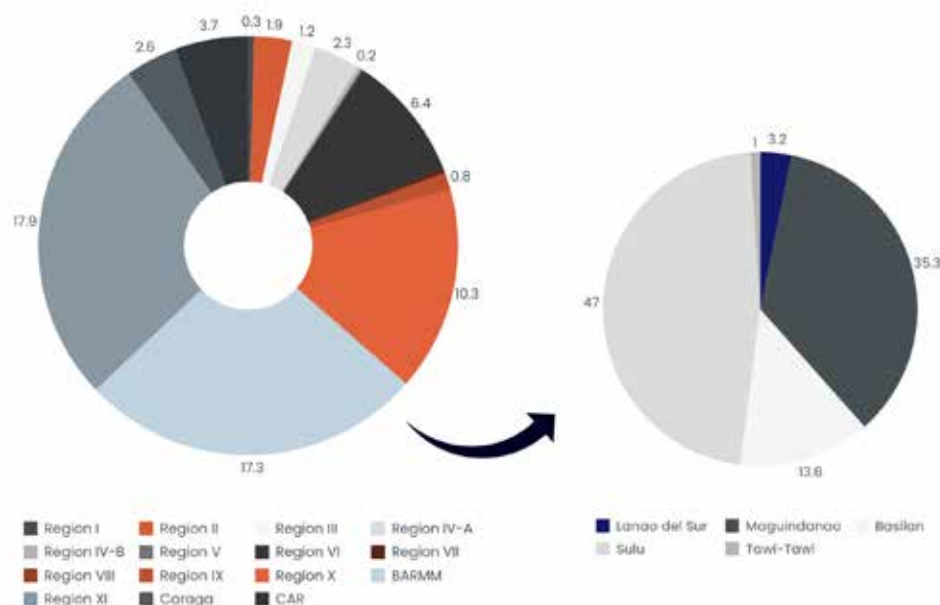


Figure 19. Dried Coffee Berries with Pulp Production in the Philippines, All Varieties, Percent Shares, 2021⁵⁸

In terms of the top coffee producing provinces nationwide, Sulu remains to be in the top five spots for all coffee varieties. It should be noted that Sulu is the number one producing province nationwide for Excelsa and Liberica while it ranked third and fourth for Arabica and Robusta, respectively. Basilan is in the top 8 for Robusta.

Table 13. Top Coffee Producing Provinces in the Philippines, by Variety, 2021

ALL VARIETIES			ARABICA		
Rank	Province	Percent Share	Rank	Province	Percent Share
1	Sultan Kudarat	29.8%	1	Sultan Kudarat	47.1%
2	Bukidnon	8.4%	2	Davao del Sur	11.7%
3	Sulu	8.1%	3	Sulu	6.9%
4	Davao del Sur	6.5%	4	Benguet	6.9%
5	Maguindanao	6.1%	5	South Cotabato	5.9%
6	Iloilo	3.9%	6	Iloilo	4.4%
7	City of Davao	3.7%	7	Maguindanao	3.1%
8	Basilan	2.4%	8	City of Davao	2.3%
9	South Cotabato	2.3%	9	Davao del Norte	2.2%
10	Surigao del Sur	2.2%	10	Sarangani	2.0%
EXCELSA			LIBERICA		
Rank	Province	Percent Share	Rank	Province	Percent Share
1	Sulu	35.8%	1	Sulu	34.9%
2	Davao del Sur	14.7%	2	Iloilo	26.6%
3	Misamis Oriental	7.5%	3	Davao Oriental	11.8%
4	Cotabato	6.7%	4	Quezon	7.2%
5	City of Davao	6.7%	5	Batangas	3.5%
6	Batangas	4.7%	6	Davao del Sur	3.4%
7	Davao del Norte	4.2%	7	Abra	3.4%
8	Nueva Vizcaya	3.9%	8	Palawan	1.9%
9	Davao Oriental	2.6%	9	Leyte	1.5%
10	Quezon	2.1%	10	Nueva Vizcaya	1.5%
ROBUSTA					
Rank	Province	Percent Share			

58 Source of basic data: PSA Openstat

1	Sultan Kudarat	27.0%			
2	Bukidnon	11.8%			
3	Maguindanao	7.6%			
4	Sulu	5.9%			
5	Davao del Sur	4.1%			
6	City of Davao	4.0%			
7	Iloilo	3.8%			
8	Basilan	3.4%			
9	Surigao del Sur	3.1%			
10	Davao Occidental	2.7%			

Source of basic data: PSA Openstat

PSA reported zero production for Basilan's Arabica and Excelsa production starting in 2020 and 2021, respectively (Table 14). The same table shows that Basilan has reported productions of Arabica and Excelsa over the years except for the previously mentioned years.

Table 14. Dried Coffee Berries with Pulp Production (in MT), by Area and Variety, 2016-2022

COMMODITY	2016	2017	2018	2019	2020	2021	2022
Philippines	68,822.93	62,077.95	60,312.76	60,043.88	60,640.95	60,607.18	59,914.00
BARMM ⁵⁹	10,341.59	10,197.53	10,477.19	10,685.17	10,563.10	10,500.59	10,480.34
Basilan	1,732.50	1,736.80	1,866.25	1,815.65	1,597.08	1,429.80	1,484.32
Sulu	4,802.30	4,905.56	4,952.37	4,937.31	4,898.33	4,930.63	4,813.60
Coffee Arabica							
Philippines	16,755.83	14,484.67	13,706.19	14,102.30	14,657.46	13,853.22	13,151.12
BARMM	1,599.62	1,626.44	1,674.70	1,668.48	1,433.09	1,447.34	1,445.02
Basilan	240.00	240.20	250.90	247.50	0	0	0
Sulu	901.00	936.96	960.50	958.60	954.60	962.10	948.00
Coffee Excelsa							
Philippines	4,268.61	4,064.45	4,039.32	3,907.87	3,712.31	3,676.65	3,551.54
BARMM	1,383.87	1,414.55	1,411.24	1,405.86	1,397.33	1,395.65	1,380.70
Basilan	22.5	22.5	25.14	24.15	19.03	0	0
Sulu	1,296.00	1,324.25	1,314.00	1,310.00	1,302.00	1,315.20	1,296.00
Coffee Liberica							
Philippines	499.42	496.01	496.37	483.57	462.53	449.46	441.76
BARMM	154.14	157.89	160.67	159.53	155.67	157.08	155.4
Basilan	0	0	0	0	0	0	0
Sulu	154.14	157.89	160.67	159.53	155.67	157.08	155.4
Coffee Robusta							
Philippines	47,299.07	43,032.81	42,070.88	41,550.14	41,808.65	42,627.85	42,769.60
BARMM	7,203.96	6,998.65	7,230.58	7,451.30	7,577.01	7,500.52	7,499.24
Basilan	1,470.00	1,474.10	1,590.21	1,544.00	1,578.05	1,429.80	1,484.32
Sulu	2,451.16	2,486.46	2,517.20	2,509.18	2,486.06	2,496.25	2,414.20

Source of basic data: PSA Openstat

Based on ocular inspection well as on the KIIs with coffee farmers in Basilan, the order of coffee producing municipalities and cities in the province include from biggest to smallest is Isabela City, Lamitan City, Lantawan, Sumisip, Maluso and Al-barka. There is no available data, however, as to the exact volume of production of each.

Available data from the Sulu PCIP for 2020-2023 indicated the province's coffee production volume in 2016 disaggregated by municipality (Table 15). The total 2016 production from the PCIP pegged at 7,271.25 MT does not tally

⁵⁹ Includes figures from the other BARMM provinces of Lanao del Sur, Maguindanao and Tawi-Tawi.

with that of PSA data for the same for Sulu which was recorded at 4,802.30 MT only. Nonetheless, the top five coffee producing municipalities during the same year were: Patikul (64.78%); Parang (9.35%); Panglima Estino (6.60%); Talipao (4.29%); and Indanan (3.47%).

Despite efforts to gather latest production data by municipality from both MAFAR Sulu and the OPAG, no data is available. Nonetheless, based on the current membership of the Federation of Sulu Coffee Producers Cooperative (FSCPC), it can be inferred that significant producing municipalities also include Patikul, Talipao, Indanan, Omar, Parang, and Maimbung. Per some key informants, there are still coffee farms in other municipalities such as Panglima Estino and others though many coffee trees in these areas also need rehabilitation and rejuvenation.

Table 15. Coffee Production in Sulu, by Municipality, 2016

MUNICIPALITY	PRODUCTION (MT)	PERCENT SHARE
Patikul	4,710.00	64.78%
Parang	679.65	9.35%
Panglima Estino	480.00	6.60%
Talipao	312.00	4.29%
Indanan	252.00	3.47%
Kalingalan Caluang	165.00	2.27%
Siasi	150.00	2.06%
Luuk	135.00	1.86%
Lugus	117.00	1.61%
Panamao	105.00	1.44%
Maimbung	92.10	1.27%
Tapul	30.00	0.41%
Omar	16.50	0.23%
Pangutaran	15.00	0.21%
Pandami	6.00	0.08%
Pata	6.00	0.08%
TOTAL	7,271.25	100.00%

Source: Sulu PCIP 2020-2023

Dried Coffee Berries with Pulp: Varietal Composition

Based on PSA data, Robusta remains to be the most dominant coffee variety produced all over the country with a 70% share. This was followed by Arabica, Excelsa and Liberica. The same trend was noted in the BARMM. Basilan was reported to have produced solely Robusta in 2021. Robusta comprised half of Sulu’s total coffee production followed behind by Excelsa (26.7%), Arabica (19.5%) and Liberica (3.2%).

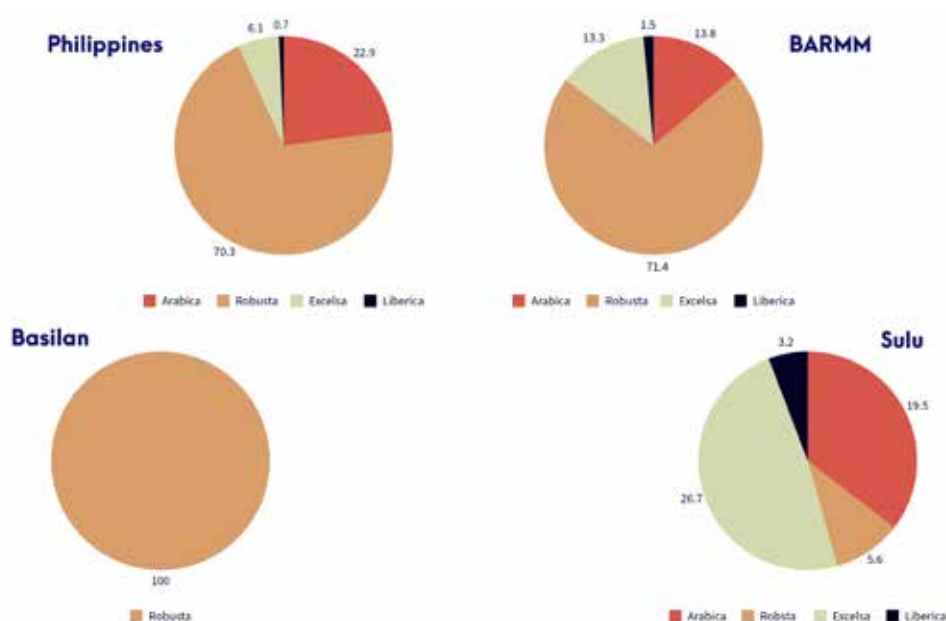


Figure 20. Varietal Composition of Coffee Produce per PSA data, 2021

Meanwhile, the estimations on the varietal composition of coffee in Basilan and Sulu based on data from the local agriculture offices in 2023 (Table 16) significantly differ from that of PSA's 2021 data shown in Figure 20 above. The Basilan-OPAG estimated that the province's coffee production is comprised of mostly Excelsa at 40% which is also supported by the OMAS-Sumisip when it stated that most of their coffee varieties are Excelsa. Robusta followed suit at 30%, Liberica at 25% and Arabica at 5%.

For Sulu, robusta is approximated at 95-98%, Liberica at 2-5%, Excelsa at 1-2% and others (variety not mentioned though this could very well be Arabica) at 1-5%. MMO Patikul's data showed a significant difference from the rest.

Table 16. Estimated Coffee Varieties Composition in Basilan and Sulu, as of October 2023

SOURCE	ESTIMATED PERCENT SHARE			
	ROBUSTA	LIBERICA	EXCELSA	OTHERS*
BASILAN				
OPAG – Basilan	30%	25%	40%	5% (Arabica)
OMAS – Sumisip	-	-	Mostly	
SULU				
OPAG-Sulu	95-98%	2-5%	No idea	0
MAFAR -Sulu	96%	1%	1%	2%
OMAS – Talipao	96%	1%	2%	1%
OMAS – Indanan	96%	1%	1%	2%
MMO – Maimbung	97%	1%	1%	1%
MMO – Patikul	60%	20%	20%	0

*Variety not mentioned

Source of basic data: MAFAR Sulu; OPAG Sulu; OMAS Talipao and Indanan; MMO Maimbung and Patikul

Green Coffee Beans

As indicated in Section 2.5, data from PSA implies a 50% recovery rate from dried berries with pulp to GCB. Table 17 shows the GCB production of the country, BARMM, Basilan and Sulu over the last seven (7) years.

Table 17. GCB Production (in MT), by Area and Variety, 2016-2022

VARIETY/ AREA	2016	2017	2018	2019	2020	2021	2022
All Coffee							
Philippines	34,411.47	31,038.98	30,156.38	30,021.94	30,320.48	30,303.59	29,957.00
BARMM	5,170.79	5,098.77	5,238.60	5,342.59	5,281.55	5,250.30	5,240.17
Basilan	866.25	868.4	933.13	907.83	798.55	714.9	742.16
Sulu	2,401.15	2,452.78	2,476.19	2,468.66	2,449.17	2,465.32	2,406.80
Coffee Arabica							
Philippines	8,377.91	7,242.34	6,853.10	7,051.15	7,328.73	6,926.61	6,575.56
BARMM	799.81	813.22	837.35	834.24	716.55	723.67	722.51
Basilan	120	120.1	125.45	123.75	0	0	0
Sulu	450.5	468.48	480.25	479.3	477.3	481.05	474.00
Coffee Excelsa							
Philippines	2,134.31	2,032.23	2,019.66	1,953.93	1,856.16	1,838.33	1,775.77
BARMM	691.94	707.28	705.62	702.93	698.67	697.83	690.35
Basilan	11.25	11.25	12.57	12.08	9.52	0	0
Sulu	648	662.13	657	655	651	657.6	648.00
Coffee Liberica							
Philippines	249.71	248.01	248.18	241.79	231.26	224.73	220.88
BARMM	77.07	78.94	80.33	79.77	77.83	78.54	77.7
Basilan	0	0	0	0	0	0	0
Sulu	77.07	78.94	80.33	79.77	77.83	78.54	77.70

Coffee Robusta							
Philippines	23,649.54	21,516.41	21,035.44	20,775.07	20,904.32	21,313.92	21,384.80
BARMM	3,601.98	3,499.33	3,615.29	3,725.65	3,788.51	3,750.26	3,749.62
Basilan	735	737.05	795.11	772	789.03	714.9	742.16
Sulu	1,225.58	1,243.23	1,258.60	1,254.59	1,243.03	1,248.13	1,207.10

Source of basic data: PSA Openstat

2.3.2. Coffee Farming Performance

Production Growth

Coffee production during the last seven (7) years in the Philippines exhibited a downward trend with an average annual growth rate (AAGR) of -2.22% (Table 18). Meanwhile, BARMM's production showed a positive AAGR albeit low at 0.23%. Basilan's growth rate mirrored that of the nation, while Sulu mirrored that of BARMM.

Table 18. Coffee Production⁶⁰ Performance, by Area, 2016-2022

PARTICULAR/ AREA	2016	2017	2018	2019	2020	2021	2022	AAGR
PHILIPPINES								
Volume of Pro- duction (MT)	68,822.93	62,077.95	60,312.76	60,043.88	60,640.95	60,607.18	59,914.00	-2.22%
	5,170.79	5,098.77	5,238.60	5,342.59	5,281.55	5,250.30	5,240.17	
Area Planted/ Harvested (Ha)	114,839	112,843	113,352	112,024	113,265	112,553	112,279	-0.37%
	2,401.15	2,452.78	2,476.19	2,468.66	2,449.17	2,465.32	2,406.80	
Average Yield (MT/Ha)	0.60	0.55	0.53	0.54	0.54	0.54	0.53	-1.86%
Number of Bearing Trees	77,739,340	76,244,003	75,323,614	74,507,692	75,048,412	77,608,502	77,172,930	-0.11%
	120	120.1	125.45	123.75	0	0	0	
Tree Density (No. of Trees/ Hectare)	677	676	665	665	663	690	687	0.27%
Tree Produc- tivity (Kg. Prod / Tree)	0.89	0.81	0.80	0.81	0.81	0.78	0.78	-2.12%
BARMM								
Volume of Pro- duction (MT)	10,341.59	10,197.53	10,477.19	10,685.17	10,563.10	10,500.59	10,480.34	0.23%
Area Planted/ Harvested (Ha)	13,936	13,958	13,964	13,975	13,976	13,925	13,903	-0.04%
Average Yield (MT/Ha)	0.74	0.73	0.75	0.76	0.76	0.75	0.75	0.27%
Number of Bearing Trees	9,320,387	9,320,571	9,323,363	9,313,248	9,318,682	9,275,384	9,260,774	-0.11%
Tree Density (No. of Trees/ Hectare)	669	668	668	666	667	666	666	-0.07%
Tree Produc- tivity (Kg. Prod / Tree)	1.11	1.09	1.12	1.15	1.13	1.13	1.13	0.34%
Basilan								
Volume of Pro- duction (MT)	1,732.50	1,736.80	1,866.25	1,815.65	1,597.08	1,429.80	1,484.32	-2.28%

⁶⁰ Production as measured by dried berries with pulp

Area Planted/ Harvested (Ha)	3,296	3,296	3,296	3,296	3,296	3,240	3,240	-0.28%
Average Yield (MT/Ha)	0.53	0.53	0.57	0.55	0.48	0.44	0.46	-2.03%
Number of Bearing Trees	994,637	994,637	994,637	994,637	994,731	947,833	947,833	-0.78%
Tree Density (No. of Trees/ Hectare)	302	302	302	302	302	293	293	-0.51%
Tree Produc- tivity (Kg. Prod / Tree)	1.74	1.75	1.88	1.83	1.61	1.51	1.57	-1.55%
Sulu								
Volume of Pro- duction (MT)	4,802.30	4,905.56	4,952.37	4,937.31	4,898.33	4,930.63	4,813.60	0.05%
Area Planted/ Harvested (Ha)	3,564	3,585	3,589	3,586	3,586	3,587	3,563	-0.004%
Average Yield (MT/Ha)	1.35	1.37	1.38	1.38	1.37	1.37	1.35	0.05%
Number of Bearing Trees	3,051,150	3,051,409	3,051,520	3,041,325	3,046,360	3,049,600	3,035,000	-0.09%
Tree Density (No. of Trees/ Hectare)	856	851	850	848	850	850	852	-0.08%
Tree Produc- tivity (Kg. Prod / Tree)	1.57	1.61	1.62	1.62	1.61	1.62	1.59	0.14%

Source of basic data: PSA Openstat

Area Planted/Harvested

In terms of area planted/harvested, coffee farm hectareage in all areas shrunk by less than a percent as shown previously in Table 18. Meanwhile, Table 19 shows the 2016 coffee areas data per municipality of Sulu as contained in its PCIP. Note that this data of 2,423.75 hectares does not match the PSA data for 2016, which reported that the total planted/harvested area was 3,564 hectares for Sulu. Nonetheless, utilizing this data from the Sulu PCIP will reveal that the municipalities of Patikul (64.78%), Parang (9.35%), Panglima Estino (6.60%), Talipao (4.29%) and Indanan (3.47%) had the largest coffee production areas in the province in 2016. These same municipalities were likewise the top coffee producers of Sulu in the same year. Per KII with the Chairperson of the Sulu Federation of Coffee Cooperatives, there are still potential areas for expansion in all the municipalities except for Jolo and the Hadji Panglima Tahil.

Table 19. Coffee Farm Areas in Sulu, by Municipality, 2016

MUNICIPALITY	AREA (IN HECTARES)	PERCENT SHARE
Patikul	1,570.00	64.78%
Parang	226.55	9.35%
Panglima Estino	160.00	6.60%
Talipao	104.00	4.29%
Indanan	84.00	3.47%
Kalingalan Caluang	55.00	2.27%
Siasi	50.00	2.06%
Luuk	45.00	1.86%
Lugus	39.00	1.61%
Panamao	35.00	1.44%
Maimbung	30.70	1.27%
Tapul	10.00	0.41%
Omar	5.50	0.23%
Pangutaran	5.00	0.21%

Pandami	2.00	0.08%
Pata	2.00	0.08%
TOTAL	2,423.75	100.00%

Source: Sulu PCIP 2020-2023

Average Yield

Only BARMM and specifically Sulu posted a positive AAGR for its coffee yield. Notably, Sulu's average yield of 1.37 MT/ha is more than double that of the national average of 0.55 MT/ha. Basilan's average yield of 0.51 MT/ha is relatively lower than the national average. Relative to the yield target indicated in the National Coffee Roadmap as shown in Table 20, only Sulu hit and surpassed the 2021 and 2022 targets.

Table 20. Coffee Production Targets based on National Coffee Industry Roadmap, 2021-2025

TARGETS	2021	2022	2023	2024	2025
Total Expansion Area (ha)*	6,373	5,622	5,956	6,175	6,163
Total Area (Existing + Expansion) (ha)	119,739	125,362	131,318	137,493	143,656
Production Targets Dried Cherry (MT)	60,038.73	90,058.09	126,827.86	165,978.82	173,864.82
Production Targets GCB (MT)	45,029.05	45,029.05	63,413.93	82,989.41	86,932.41
Yield in Dried Cherries (kg/ tree)	0.8	1.2	1.6	2	2
Self-sufficiency (%)**	15.39	23.09	32.52	42.56	44.58
Organic Fertilizer Requirement*** (50kg/sack)	-	6,639,153	6,954,593	7,281,633	7,608,025
Complete Fertilizer Requirement*** (50kg/sack)	•	414,947	434,662	455,102	475,502
GAP Training of Trainers (TOT)****	-	33	33	33	33

* 1 hectare is equal to 662 coffee trees

** Based on the 2020 ICO Domestic consumption data

***Based on Good Agricultural Practices (GAP) for Coffee Rehabilitation, 4kg of organic fertilizer/tree or 200g of complete fertilizer/tree

**** 30 persons/training

Number of Bearing Trees

As the area planted/harvested for coffee declined, the same trend was observed regarding the number of bearing trees.

Tree Density

While the number of coffee trees per hectare decreased in both Sulu and Basilan, it is worth noting that Sulu's tree density is more than double that of Basilan and higher than that of the whole BARMM and the Philippines.

Tree Productivity

Both Sulu and Basilan's coffee trees are more productive than the average coffee tree in the Philippines. While Basilan's tree productivity had a negative AAGR of -1.55% viz Sulu's 0.14% AAGR, Basilan's coffee trees are seen to be more productive producing an average of 1.70 kg of dried berries per tree compared to Sulu's average of 1.61 kg/tree.

Potential Areas for Expansion

There is no readily available data, however, on the potential areas for expansion for coffee farming in both provinces. Nonetheless, statements from farmer informants implied that they still have areas for coffee farming, either new areas or replacement of old senile trees especially in Basilan.

2.3.3. Value of Production

Using the reported farm gate prices of GCB in Section 4.2, Table 21 shows the calculated and estimated production value of coffee during the last seven years. Unfortunately, PSA did not report the price for Liberica coffee.

Table 21. Value of GCB Production, 2016-2022

AREA/VARIETY/YEAR	2016	2017	2018	2019	2020	2021	2022
PHILIPPINES							
Arabica	782,329.24	758,997.23	726,428.60	739,524.61	756,691.37	730,133.96	1,047,947.00
Excelsa	174,607.90	181,742.33	185,283.61	169,816.06	152,279.37	165,707.07	160,245.48
Robusta	1,756,924.33	1,757,890.70	1,699,873.91	1,652,241.32	1,524,343.01	1,547,390.59	1,808,726.38
Total	2,713,861.47	2,698,630.26	2,611,586.12	2,561,581.99	2,433,313.75	2,443,231.62	3,016,918.86
BARMAM							
Arabica	56,138.66	69,497.78	72,589.87	71,836.41	61,795.27	62,952.05	63,147.37
Excelsa	45,059.13	55,068.82	54,826.67	56,311.72	56,955.58	57,626.80	58,010.11
Robusta	241,836.94	264,829.29	269,556.02	295,667.58	313,499.20	-	-
Total	343,034.73	389,395.89	396,972.56	423,815.71	432,250.05	120,578.85	121,157.48
BASILAN							
Arabica*	8,422.80	10,263.75	10,875.26	10,656.11	-	-	-
Excelsa	765.00	852.30	923.14	953.96	796.92	-	-
Robusta	49,347.90	55,779.94	59,283.40	61,265.92	65,292.23	-	-
Total	58,535.70	66,895.99	71,081.80	72,875.99	66,089.15	0.00	0.00
Sulu							
Arabica	31,620.60	40,036.30	41,632.87	41,272.52	41,162.35	41,841.73	41,427.60
Excelsa	40,325.04	52,943.91	53,841.15	53,205.65	52,841.67	54,304.61	54,373.68
Robusta**	82,285.44	94,087.65	93,841.22	99,564.26	102,860.73	-	-
Total	154,231.08	187,067.86	189,315.24	194,042.43	196,864.75	96,146.34	95,801.28

Source of basic data: PSA

- No data was reported

*PSA reported no price data for Arabica in Basilan, thus the BARMAM figure is used to approximate value

**PSA reported no price data for Robusta in Sulu, thus the BARMAM figure is used to approximate value

03

Nature and Structure of the Industry

3.1. Value Chain Mapping

Shown in Figure 21 is the VC map of processed coffee in Basilan and Sulu. It depicts the functions, operators and enablers in each segment of the coffee VC in both provinces.

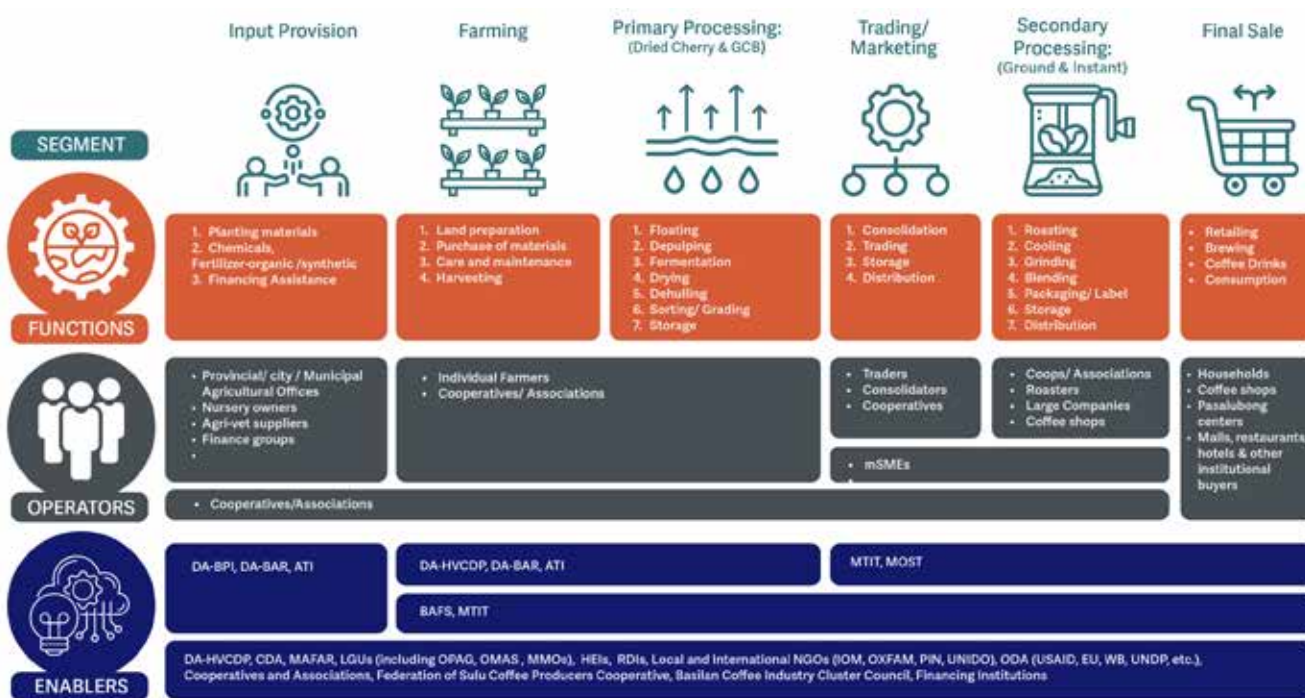


Figure 21. Processed Coffee Value Chain Map in Basilan and Sulu

3.2. Key Value Chain Segment Functions

This section describes the functions and production/operations systems that serve as the benchmark of good practices in the coffee industry VC.

3.2.1. Input Provision

Inputs for coffee farming include seeds, seedlings, plastic/poly bags, fertilizers and pesticides as well as rotavator and

germination chamber. Also included here are irrigation instruments and garden tools and farm implements (e.g., bolo, scythe, hole digger, shovel, pick mattock, rake, knapsack sprayer, water sprinkler/hose, pale, sacks, ropes and twines, tractors for those who are into mechanized farming, etc.) for farm maintenance and management. Farm animals for field plowing also belong here. Financing or capital as well as insurance coverage can be categorized under this segment of the coffee VC too.

Planting Materials

Propagation Methods

Coffee can be propagated via sexual propagation (seeds), asexual propagation (cloning/cutting, grafting) and invitro technique or tissue culture (Figure 22). The common problem associated with using seeds as planting materials is the non-uniformity of plants as the new plants' traits deviate from the trees where they come from. To solve this concern, the use of clonal propagation or more sophisticated techniques like tissue culture, especially somatic embryogenesis, is recommended. A clone is a part of a plant that is made to reproduce an offspring with all the characteristics of its parents. This assures farmers that the coffee is pest and disease resistant as well as of high yielding variety.



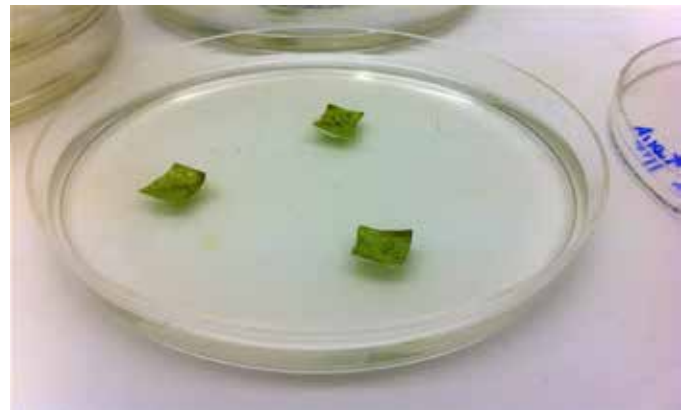
Seed



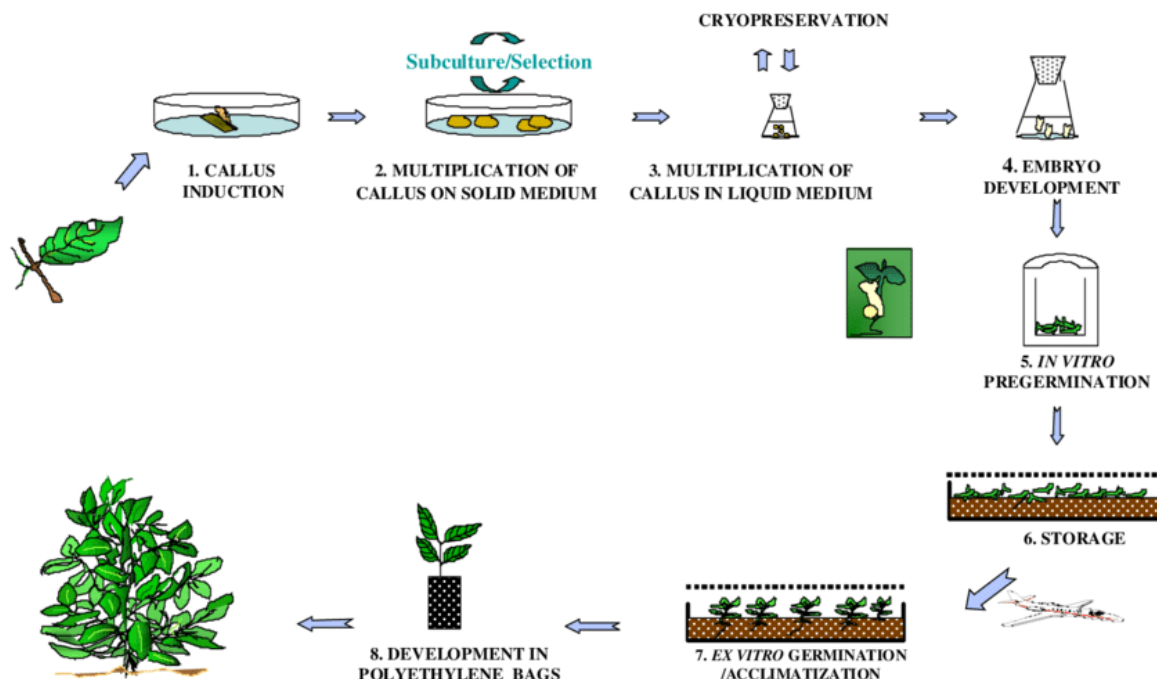
Grafting



Cuttings



Tissue Culture



Somatic embryogenesis in liquid medium at Nestlé R&D-Tours Center
 Figure 22. Sexual and Asexual Propagation of Coffee⁶¹

The Department of Agriculture-Bureau of Agricultural Research (DA-BAR) recommended practices and specifications for coffee seed preparation and asexual propagation are listed below.

Table 22. DA-BAR Recommended Practices and Specifications for Coffee Propagation

SEED PREPARATION	ASEXUAL PROPAGATION (CLONING)
<ol style="list-style-type: none"> 1. Gather seeds from disease and pest-free, high yielding trees. 2. Grow coffee plants in the nursery to produce better seedlings. The nursery must be in the production or nearby and is accessible to water supply. 3. Three-fourth kg (i.e., 750 gm) of quality seeds is enough to plant a hectare. 4. A 50% allowance of seeds must be considered for ungerminated seeds, poor seedlings and for replanting. 5. Select viable seeds, stir berries in a bucket of water and remove floaters. Those that sink are the good seeds. 6. Remove pulp by hand or pulping machine, then soak beans in water for 24 hours to hasten the removal of mucilage. 7. Wash beans and discard floaters. Air dry in well-ventilated room for least 4 days. 8. Keep dried parchment in cool dry place or mix with charcoal to preserve its viability. 9. A germination bed must be 1 meter wide and of convenient length. To avoid flooding, raise the bed 15 cm from ground level. 10. A 1m x 20 m plot can accommodate one ganta⁶² of seeds. 11. Sow seeds on shallow rows at ¾ inch deep and cover with fine soil. 12. Water the seedbed regularly but not too wet and partially shade plants from sunlight. 13. Prick or transplant the seedlings to another seedbed/plastic bags when 2-3 pairs of leaves have developed. 	<ol style="list-style-type: none"> 1. Split lengthwise into two halves of a finger sized vertical shoot of about one foot long with 4-6 nodes to produce a clone. Partially cut the leaves before splitting. 2. Set nodal cutting in germination box 1x2 inches apart and 1 inch deep, then place boxes in germination chamber. Nodal cuttings will produce roots and shoots within 45 days. 3. Prick seedlings into individual plastic bags with soil. Full-grown seedling with 4-6 pairs of leaves could be attained within 6-8 months. 4. Coffee plants raised from nodal cuttings bear fruits about 18 months after transplanting.

Source of Planting Materials

Coffee farmers obtain coffee planting materials to propagate coffee through coffee farms and to replace dead trees. They source their seedlings either from nurseries (government-owned or private-owned), existing plants and wildings. Wildings refer to seedlings that grow under coffee trees in the field. A ganta or gantang is a traditional unit of volume commonly used in the Malay archipelago. A ganta of dry coffee beans is approximately 1.6-1.925 kilograms (Source: BAS)

To ensure high quality planting materials, it is highly recommended for farmers to buy their seedlings from Bureau of Plant Industry (BPI) registered and accredited nurseries.

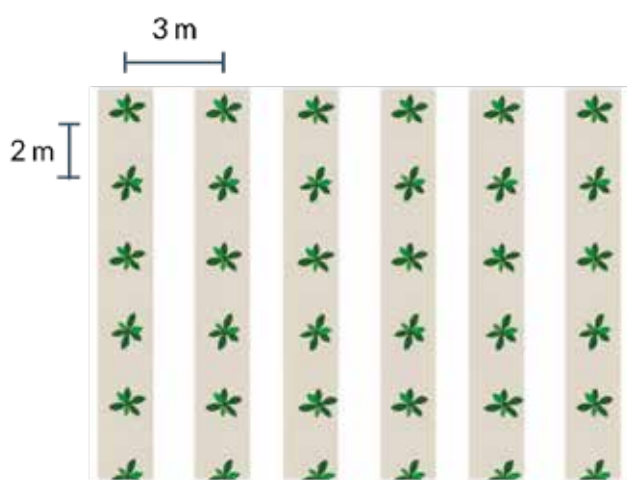
Other Agricultural Supplies/Inputs

Meanwhile, fertilizers used for coffee can either be organic or inorganic. Organic fertilizers are in the form of vermicast. Inorganic fertilizers are synthetic in nature and are sourced from agri-vet suppliers.

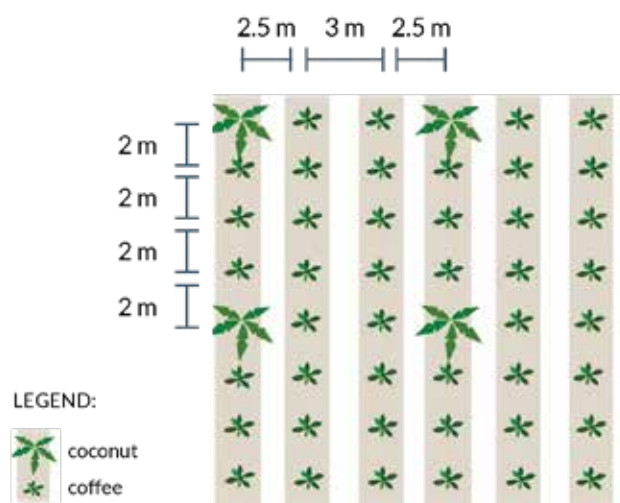
3.2.2. Farming

The Agricultural Training Institute (ATI) of the DA recommends intercropping coffee with other trees that has upright growth habit as well as with vegetables such as those that belong to the gourd family (cucumber and squash), pea family (all kinds of beans and peanuts), and night shade family (eggplants, peppers, and tomatoes). Figure 23 shows the recommended distance when monocropping and intercropping coffee.

The intercropping practice not only reduces the risk of soil erosion but also gives farmers cash throughout the growing season. While many farmers practice intercropping, some farmers do not actually have this consciousness of organizing their intercropping system with a balanced consideration of elements such as market demand, food security, environmental implications, and nutrient requirements.



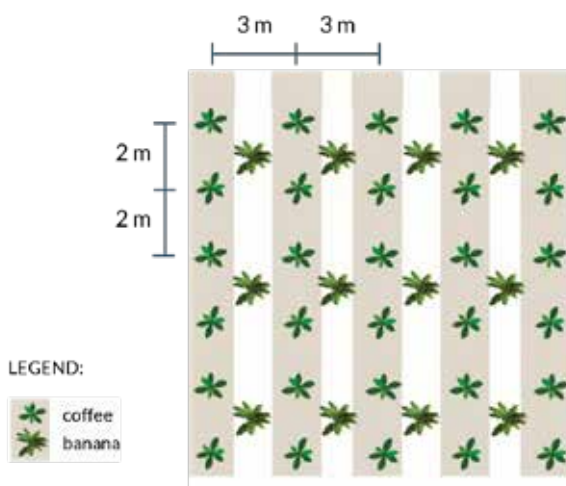
COFFEE (ROBUSTA) MONOCROPPING



LEGEND:



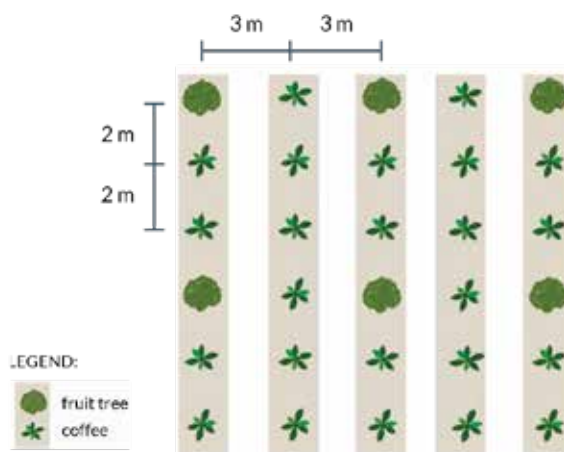
COFFEE-COCONUT CROPPING PATTERN



LEGEND:



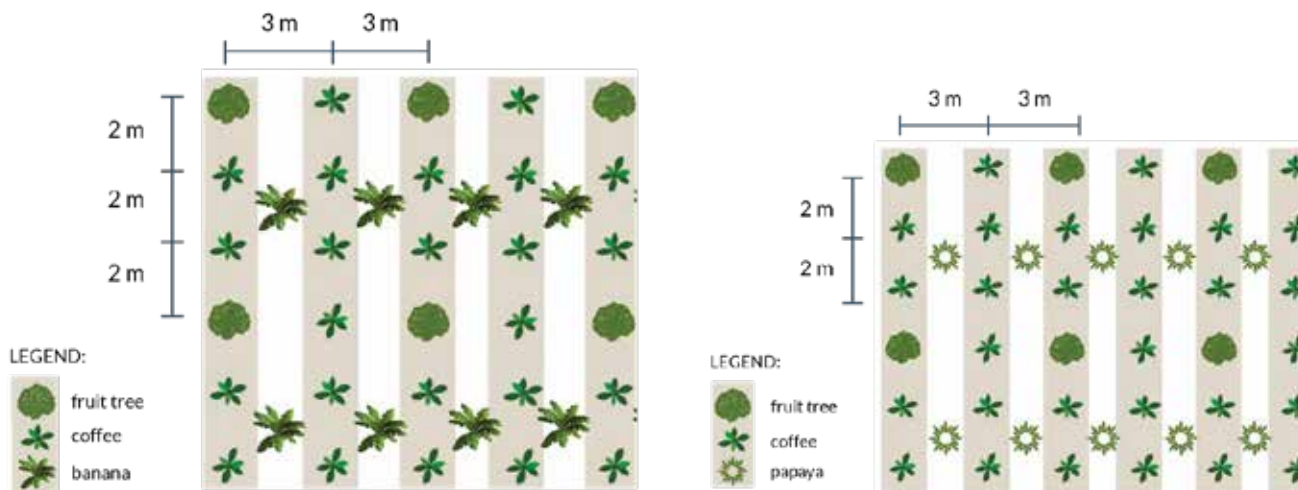
COFFEE-BANANA CROPPING PATTERN



LEGEND:



COFFEE FRUIT TREE CROPPING PATTERN



COFFEE-FRUIT TREE-BANANA CROPPING PATTERN **COFFEE-FRUIT TREE-PAPAYA CROPPING PATTERN**

Figure 23. ATI Recommended Spacing for Coffee Monocropping and Intercropping⁶³

Apart from choosing the right quality planting materials and intercropping system, the following factors also need to be considered when establishing coffee farms: agro-climatic requirements (elevation, temperature, sunshine requirements, wind requirements, relative humidity, rainfall, soil pH, soil depth and organic matter); and shade establishment. Before coffee trees are planted, shade trees must be well established. Ideally, shade trees should be planted a year before coffee planting. Never grow shade trees beside or immediately after coffee seedlings.

Good Agricultural Practices for Coffee

The Code of Good Agricultural Practices for Coffee or Philippine Coffee GAP (PNS/BAFS 169:2015) covers relevant practices during primary production or farming, primary processing (i.e., wet and dry), and storage and transport of GCB to ensure food safety and sustainability of coffee production. This GAP ought to be the “basis for the provision of appropriate assistance and technical support to increase productivity, improve quality and use of natural resources, and comply with at least minimum sustainability, leading to improved farmer income and making coffee farming attractive to future generations of coffee farmers/growers.”⁶⁴

The Philippine Coffee GAP enumerated several steps that are involved in coffee farming up to harvest which can be categorized into three – coffee farm establishment, coffee farm management, and harvesting operations. Table 23 summarizes these GAP for coffee farming.

Table 23. Summary of GAP for Coffee Farming

STAGE	TECHNIQUES & GAP RECOMMENDED PRACTICES
Coffee Farm Establishment	
Selecting site	<ul style="list-style-type: none"> Select area with suitable agro-climatic conditions as enumerated in as laid out in previous section. Avoid areas with potentially harmful substances that may contaminate coffee during its growing stage, harvest and postharvest handling. Implement measures that will minimize the presence of domestic and wild animals (i.e., installing fences, planting buffer plants, or confining animals to a designated area for livestock and poultry production). Ensure that the existing natural ecosystem (including threatened or endangered plants and animal species) is protected. Select area that is accessible to transportation facilities.
Selecting Planting Materials	<ul style="list-style-type: none"> Select planting materials that are free from pests and diseases (those registered with BPI and the National Seed Industry Council or NSIC) Source planting materials from accredited plant nursery operators Keep record of planting material source
Preparing the Land	Clean intensively newly open areas. Slash weeds and remove trees unless they can be used as windbreaks or shade trees.

⁶³ Source: ATI Techno Guide for Coffee

⁶⁴ Source: Code of Good Agricultural Practices for Coffee or Philippine Coffee GAP (PNS/BAFS 169:2015)

Lay-outing, Staking, and Hole Digging	<ul style="list-style-type: none"> Establish a straight base line along the boundary. Follow recommended planting distance: <table border="1"> <thead> <tr> <th>System</th> <th>Arabica</th> <th>Excelsa</th> <th>Liberica</th> <th>Robusta</th> </tr> </thead> <tbody> <tr> <td>Monocrop</td> <td>2m x 2m</td> <td>2m x 2m</td> <td>2m x 2m</td> <td>3m x 2m</td> </tr> <tr> <td>Intercrop</td> <td>2.5m x 2m</td> <td>4m x 4m</td> <td>4m x 4m</td> <td>3m x 2.5m</td> </tr> </tbody> </table> Ensure that rows of coffee run at right angle to the direction of the slope when planting along contour areas Examine the contour map and prepare outline plans for selected erosion control measures which will determine the contour interval at which the rows of coffee are to be planted. Mark the area to place the planting holes by staking the rows and the hills. Dig holes of around 40cm x 40cm x 40cm to provide room for root development. Backfill the holes with topsoil. Add compost. 	System	Arabica	Excelsa	Liberica	Robusta	Monocrop	2m x 2m	2m x 2m	2m x 2m	3m x 2m	Intercrop	2.5m x 2m	4m x 4m	4m x 4m	3m x 2.5m
System	Arabica	Excelsa	Liberica	Robusta												
Monocrop	2m x 2m	2m x 2m	2m x 2m	3m x 2m												
Intercrop	2.5m x 2m	4m x 4m	4m x 4m	3m x 2.5m												
Transplanting	<ul style="list-style-type: none"> Begin transplanting when the coffee seedlings in bags have a minimum of 6-8 leaf pairs. Do transplanting during the onset of rainy season and on cloudy days. Avoid planting trees when conditions are windy, hot and dry, or during the hottest part of the day. Water the seedlings in the growing bag before planting. Remove the plastic bag before planting. Place the seedling upright in the hole; do not plant at an angle. Firmly press soil with your feet. 															
Coffee Farm Management																
Conserving Soil	<ul style="list-style-type: none"> Implement erosion control measures such as contouring, silt pits, mulching, cover cropping and planting crops against the slope for areas with steep slope (above 18%). Ensure that other anti-erosion measures (e.g., contour ridges, contour bunds, contour ditches and vegetative measures) that are designed to disrupt the downward flow of rainfall run-off, collect, and convey the run-off to major waterways and then to a drainage channel also run along the contour between the coffee rows. 															

Fertilizing	<ul style="list-style-type: none"> • Ensure that inputs (water, fertilizer, agricultural chemicals, organic inputs, and the like) should not contain microbial or chemical contaminants • (e.g., heavy metals such as cadmium, mercury, lead and nickel)⁶⁵ at levels that may affect safety of coffee beans. • Manage the use of fertilizers particularly natural fertilizers or commercial organic fertilizers to limit its potential as source of microbial and chemical contamination. • Do not use untreated solid nor liquid manure because pathogenic microorganisms can persist in soils for long periods of time. • Adopt proper treatment procedures when using your own farm produces organic inputs (e.g., compost) to reduce or eliminate the pathogens present in the raw material and to minimize the probability of contaminating the product. • Ensure that inputs (water, fertilizer, agricultural chemicals, organic inputs, and the like) should not contain microbial or chemical contaminants • (e.g., heavy metals such as cadmium, mercury, lead and nickel) at levels that may affect safety of coffee beans. • Manage the use of fertilizers particularly natural fertilizers or commercial organic fertilizers to limit its potential as source of microbial and chemical contamination. • Do not use untreated solid nor liquid manure because pathogenic microorganisms can persist in soils for long periods of time. • Adopt proper treatment procedures when using your own farm produces organic inputs (e.g., compost) to reduce or eliminate the pathogens present in the raw material and to minimize the probability of contaminating the product. • consider the slope and proximity of composting site to production areas to prevent cross contamination from run-off or leaching • locate composting areas at the lowest part of the production area • human manure and urine are not allowed • Keep a record of treatment procedures (including the raw materials used) and all other agricultural inputs used (including origin and composition of fertilizers, date, frequency, and location of application). • Conduct soil analysis as basis of the application of fertilizer. • Use only registered agricultural chemicals and follow manufacturer's instructions for the intended purpose. • Use organic and inorganic fertilizers appropriately. Below is the suggested amount of fertilizer need during planting using the Basal application: <table border="1"> <thead> <tr> <th>Unit</th> <th>Complete Fertilizer (14-14-14)</th> </tr> </thead> <tbody> <tr> <td>Grams/tree</td> <td>75</td> </tr> <tr> <td>Kgs/ha</td> <td>124</td> </tr> </tbody> </table> • Label clearly fertilizers and store them in a way that does not contaminate the environment. 	Unit	Complete Fertilizer (14-14-14)	Grams/tree	75	Kgs/ha	124
Unit	Complete Fertilizer (14-14-14)						
Grams/tree	75						
Kgs/ha	124						
Weeding	<ul style="list-style-type: none"> • Conduct weeding at least 3-4 times annually, especially during wet season when weeds grow fast, to avoid competition on nutrient uptake and to avoid incidence of pest and diseases. 						
Water Management	<ul style="list-style-type: none"> • Plant during rainy season in rain-fed areas. • Use irrigation when planting during dry months. • Ensure sustainability of water use. 						
Mulching	<p>Mulch coffee plants with rice straw or other appropriate material to a depth of 2 to 3 inches (5 to 8 cm) especially at the end of the wet season to maintain soil moisture and control weeds.</p>						

65 As defined under the General Principles of Food Hygiene (CAC/RCP 1-1969)

Pruning and Rehabilitating Old Trees	<p>Eliminate certain secondary or tertiary fruit bearing branches in order to maintain beneficial aeration and light throughout the coffee tree. Remove vertical sprouts that grows on the main trunk regularly, these absorbs more water and nutrients than the lateral branches</p> <p>Single Stem Pruning</p> <table border="1"> <tr> <td>Year 1</td> <td>Desucker to maintain a single stem and avoid competition.</td> </tr> <tr> <td>Year 2</td> <td>Desucker to remove drooping primary branches that touch the ground. Cut back to nearest secondary branch.</td> </tr> <tr> <td>Year 3</td> <td> <p>Allow three to crop.</p> <p>Cap the main stem by cutting above a side primary shoot at about 5 ft (1.6 m) from the ground.</p> <p>Remove secondary branches within 8 inches (20 cm) of the main stem.</p> <p>Maintain a maximum number of well-spaced secondary branches on each primary branch.</p> <p>Remove all dead, weak and pest or disease damaged branches.</p> </td> </tr> </table> <p>Multiple Stem Pruning Bend down the first main stem and tie it to a stake. Let 3-5 vertical sprouts to develop. Cut off the bent stem when the vertical sprouts grow up to 30cm and select only three (3) healthy sprouts to grow as the main stems. Spread the new three (3) main stems using a bamboo expander, this will give even distribution of sunlight to the trees.</p> <p>Rejuvenation Cut vertical stems of old trees to induce growth of new sprouts. The ideal age of tree to be rejuvenated normally ranges 10 to 30 years depending on the tree vigor and yield pattern. Rejuvenation brings back 100% of the coffee green bean yield and reduces 50% of labor cost.</p> <table border="1"> <tr> <td>Side Pruning</td> <td>Full Stumping</td> </tr> <tr> <td>Remove one side of the tree, train new sucker and then remove the other side 2-3 years later</td> <td>Cut back the tree to knee-height – about 12 inches (30cm) from the ground level to develop a new stem from the stump</td> </tr> </table>	Year 1	Desucker to maintain a single stem and avoid competition.	Year 2	Desucker to remove drooping primary branches that touch the ground. Cut back to nearest secondary branch.	Year 3	<p>Allow three to crop.</p> <p>Cap the main stem by cutting above a side primary shoot at about 5 ft (1.6 m) from the ground.</p> <p>Remove secondary branches within 8 inches (20 cm) of the main stem.</p> <p>Maintain a maximum number of well-spaced secondary branches on each primary branch.</p> <p>Remove all dead, weak and pest or disease damaged branches.</p>	Side Pruning	Full Stumping	Remove one side of the tree, train new sucker and then remove the other side 2-3 years later	Cut back the tree to knee-height – about 12 inches (30cm) from the ground level to develop a new stem from the stump
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Remove one side of the tree, train new sucker and then remove the other side 2-3 years later	Cut back the tree to knee-height – about 12 inches (30cm) from the ground level to develop a new stem from the stump										
Pest and Disease Management	<p>Inspect and regularly monitor the farm site and other facilities for the presence of pests and diseases (coffee stem borers, coffee berry borer, coffee rust and berry rot). Tag and record the infected trees for further observation. Use results of inspection and monitoring to decide the best management strategy (management or control). Use Integrated Pest Management (IPM) as an effective and environment-friendly approach to pest management to control and minimize pest damages - combines the use of current and comprehensive information on the life cycles of pests; their interaction with the environment and the available pest control methods, e.g., varietal selection biological, cultural, physical, mechanical and chemical controls - use chemicals on a need basis only</p>										
Farm Sanitation	<p>Remove diseased or damaged plants to prevent the further spread of the disease in the production site - Remove infested or infected plant parts (e.g., cherry) from the tree and the soil - burn infested or infected plant parts in designated area</p>										

Waste Management	<p>Do not allow waste to accumulate in the farm Keep waste storage area clean and dry Reuse and/or recycle (water, coffee pulp, coffee hull/husk and rejected beans) - raw materials in the production of feeds, compost, and for other industrial uses (e.g., coffee pulp to silage and as a compost, coffee husk as a fuel and coffee wastewater to biogas)</p>
Harvesting Operation	
Harvesting	<ul style="list-style-type: none"> • Harvest cherries according to maturity indices (within 8-11 months after flowering depending on the species and location) to ensure good quality coffee beans. • Consider possible sources of contamination in selecting the apt operation and method of removing the coffee cherries from the branch via any of the following harvesting technique: <ul style="list-style-type: none"> * Single Pass Stripping: remove all berries at one time * Multiple Pass Stripping: remove branches with ripe berries * Selective Picking (Priming): only ripe berries are harvested * Mechanical Harvesting: use of combine harvester <p><i>Selective Picking (Priming)</i></p> <p>This is highly recommended for good quality coffee but also for better prices and for increased yields.</p> <ul style="list-style-type: none"> • Avoid the inclusion of the peduncle during harvesting in order not to destroy the coffee clusters in the branches. • Picking only red cherries as green, dried, and overripe cherries lead to different quality defects. • Place ripe cherries in clean harvesting containers prior to selection or segregation. • Use nontoxic containers for harvesting such as plastic containers, do not use agrochemical containers. They should be designed and constructed to ensure that they can be cleaned, disinfected, and maintained to avoid contamination. • Harvesting containers should only be used to contain harvested produce. If these are used for other purposes, these must be cleaned and disinfected as necessary prior to use. • Do not let the harvested cherries and containers to be in direct contact with the ground. • Do not mix the newly harvested cherries with any fermented part of the harvested cherries from the previous day as this will contaminate the cherries and result in deterioration of the entire batch. • Segregate harvested cherries that are heavily bruised, damaged, diseased, or overripe. Those that cannot be made safe by further processing should be disposed of properly to avoid contamination. • Wash hands regularly especially when coming from the toilet during harvesting.

The DA has its GAP Certification Program which is facilitated by the Regulatory Division in each of its Regional Field Offices (RFOs). Aside from the main purpose of the GAP as stated above, the GAP certification also intends to make it easier for Philippine agricultural crops including coffee to reach markets outside of the country, including adjacent Association of Southeast Asian Nations (ASEAN) countries.

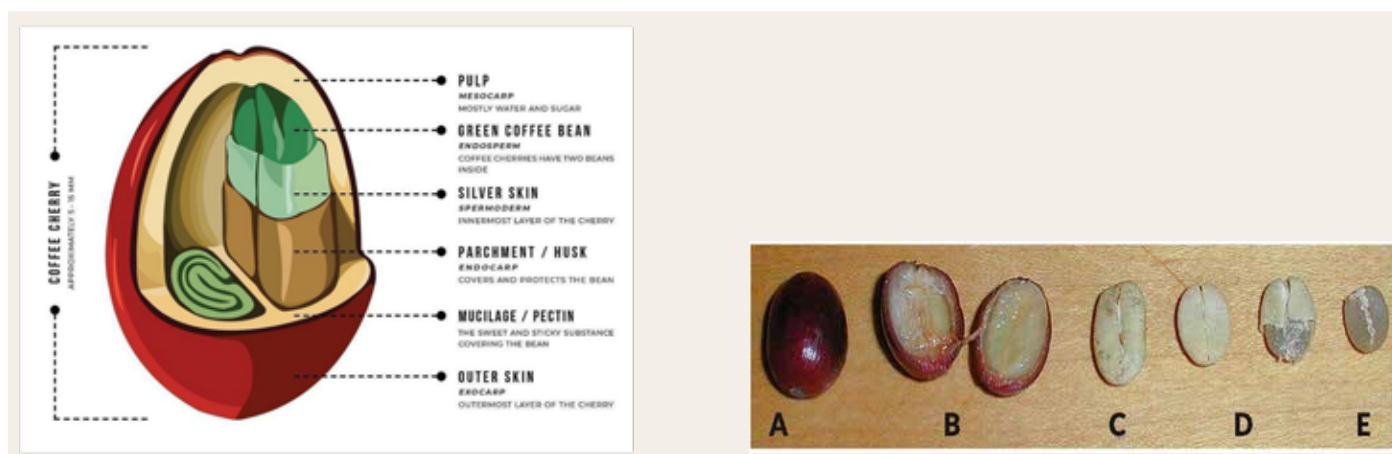
Individual farmers, partnership/joint venture, cooperatives, corporations, associations/organizations, and demonstration farms may avail themselves of the GAP certification. As applicable, requirements to be submitted include accomplished application form, organizational profile, farm map or area map, field operation procedures, GAP training certificate, certificate of registration, procedure of accreditation, and procedure for out growership. Processing usually takes an average of one month counted from submission of complete requirements till issuance of certificate. No fees are collected for GAP certification.

3.2.3. Processing

Primary Processing: Green Coffee Beans (GCB) Processing

Primary processing here refers to the method of converting the raw coffee cherry/berry into GCB (Figure 24) which will be supplied processors for secondary processing. Other documents equate primary processing to postharvest handling.

As previously mentioned in Section 2, coffee quality and flavor are affected by several factors including quality of planting materials, harvesting method (GCB of inferior grade is produced when red and green berries are harvested together), and postharvest treatment.



A-ripe cherry bean; B-cross section showing mucilage; C-parchment coffee; D-parchment cross section showing the parchment skin and silver skin; E - GCB

Figure 24. Physical Appearance Transition of a Coffee Cherry into a GCB⁶⁶

GCB Quality and Defects

Good quality GCB are characterized by the following: uniform in sizes and shapes; free from molds, foreign bodies, insects, and other imperfections; hard and not spongy; glossy and smooth; color exhibits a greenish to deep green and fresh background hue; and free from undesirable or rancid odor.

However, there are primary and secondary defects of coffee identified in the country which are summarized and shown in Tables 24-25. It should be noted that BARMM was not included in the enumerated affected regions, but no reason was provided.



Table 24. Summary of Common Defects on Philippine Coffee and Recommendations







DEFECT	CAUSE	RECOMMENDATION	AFFECTED REGION/S
Primary	Over fermentation associated with micro-organisms	Pick red, avoid over fermentation. In processing sort by density	Regions 6, 10, 12, and 13
Full Black	<ul style="list-style-type: none"> Microbial contamination during fermentation, harvesting, and processing. Picking overripe cherries. Use of contaminated water. 	<ul style="list-style-type: none"> Harvest ripe cherries. Don't pick-up fallen cherries Pulp at the right time. Control fermentation. Avoid contaminated water. Good drying techniques. 	Regions 2, 4A, 6, and 12
Full Sour	<ul style="list-style-type: none"> Fungus infection from harvesting to storage. High temperature & humidity in storage. Leftover beans Cherries form the ground 	<ul style="list-style-type: none"> Control fermentation. Proper drying areas and techniques Proper storage (T28C-H 60%) and sorting. 	Regions 10,11, 2, 6, 10, and 12





Fungus Damage	<ul style="list-style-type: none"> Fungus infection from harvesting to storage. High temperature & humidity in storage. Leftover beans Cherries form the ground 	<ul style="list-style-type: none"> Control fermentation. Proper drying areas and techniques Proper storage (T28C-H 60%) and sorting. 	Regions 10,11, 2, 6, 10, and 12
Foreign Object	Foreign matter such as stones, stocks, dead insects, pins, etc.	Adequate dry mill facility with destoners, magnets, sorting machines	Regions 6 and 10
Sever Insect Damage	Berry borer	<ul style="list-style-type: none"> Integrated pest management to eliminate conditions of proliferation Keep away ripe cherry pulp Clean up fallen cherries on the grounds 	Regions CAR, 1, 2, 4A, 6, 10, 12
Secondary			
Slight Insect Damage	<ul style="list-style-type: none"> Berry borer 	<ul style="list-style-type: none"> Integrated pest management to eliminate conditions of proliferation Keep away ripe cherry pulp Clean up fallen cherries on the grounds 	Regions CAR, 1, 2, 3, 4A, 6, 10, 11, 13
Immature/ Unripe	Improper picking of immature cherries	<ul style="list-style-type: none"> Pick ripe only. Screening of pulped cherries in the wet mill. Density and color sorters in the dry mill 	Region CAR, 1,2, 4A, 6, 10, 11, 12, and 13
Withered Beans	<ul style="list-style-type: none"> Lack of water (drought). Weak and poor health of plants. Wrong shading trees 	<ul style="list-style-type: none"> Proper use of fertilizer. Floating during processing Density sorter 	Regions CAR, 1, 2, 4A, 6, 10, 12
Broken Chipped	<ul style="list-style-type: none"> Immature cherries do not pulp correctly. Machine damage. 	<ul style="list-style-type: none"> Proper adjustment of pulpers and hullers. Sort bigger beans from smaller beans. Good quality pulper and hullers 	All Regions

Source: PRDP Mindanao Coffee VCA

Table 25. Common GCB Defects and their Causes

DEFECT	DESCRIPTION	CAUSE
Black beans 	<ul style="list-style-type: none"> Brown to black beans Shrunken Wrinkled Flat faced Crack too opened 	<ul style="list-style-type: none"> Lack of water during development of cherries Over fermentation Overripe cherries picked from the ground
Moldy beans 	Coffee beans infested by mold presenting yellowish or reddish spores	<ul style="list-style-type: none"> Over fermentation Long interruptions during drying process Storage of beans with high moisture content

<p>Sour or Partial Sour Beans</p> 	<ul style="list-style-type: none"> • Light brown to dark brown beans • Crack free of tegument • Silver skin can be reddish brown 	<ul style="list-style-type: none"> • Delay in between coffee picking and depulping • Overextended fermentation process • Use of dirty water • Storage of beans with high moisture content
<p>Crystallized Beans</p> 	<p>Coffee beans grayish and bluish in color, fragile, brittle</p>	<p>Beans dried mechanically at temperatures above 60° Celsius, faulty in drying process</p>
<p>Faded or Streaked Beans</p> 	<p>Stained bean, showing an irregular greenish color</p>	<p>Usually due to uneven drying or re-wetting after drying</p>
<p>Faded-Oldish Beans</p> 	<p>Coffee beans with alterations in the normal color, white coffee beans, cream, yellow to brown</p>	<ul style="list-style-type: none"> • Long time in storage • Storage in bad conditions (high temperature and humidity) • 25-30 C and 50-60% would be ideal
<p>Faded-Amber or Buttery Beans</p> 	<p>Yellow, semi- transparent beans</p>	<p>Iron deficiency in the soil</p>
<p>Faded-Overdried Beans</p> 	<p>Amber to yellow beans</p>	<p>Excessive time in the dryer, or high temperature during drying</p>
<p>Faded-Cut or Nipped Beans</p> 	<p>Cut or nipped bean and rusty</p>	<ul style="list-style-type: none"> • Bean broken by the depulping machine during wet process • Cherries harvested prior to maturity
<p>Insect-Damaged Beans</p> 	<p>Beans with small holes caused by insects.</p>	<ul style="list-style-type: none"> • Attack on cherries by Hypothenemus haempei (coffee berry borer) • Attack by Araecerus Fasciculatus during storage, due to inadequate storage conditions

<p>Shrunk Beans</p> 	<p>Wrinkled bean</p>	<p>Beans affected by drought conditions Lack of fertilization</p>
<p>Immature Beans</p> 	<ul style="list-style-type: none"> • Green or light grey beans • Beans tend to have a very adherent silver skin and size smaller than normal • Whither surface • Smaller size than normal • In this group low density beans are included 	<ul style="list-style-type: none"> • Cherries picked before ripeness • Lack of fertilizer • Beans affected by drought and rust disease
<p>Pressed or crushed beans</p> 	<p>Bruised beans with partial fractures</p>	<ul style="list-style-type: none"> • Bruised beans during depulping, drying, and milling process • Milling parchment with high moisture
<p>Wet or Undried Beans</p> 	<p>Beans with dark green color and soft texture</p>	<ul style="list-style-type: none"> • Bean with high humidity • Lack or incomplete drying

Source of basic data: ATI

GCB Standards

The Philippine National Standards for GCB (PNS/BAFPS 01:2012) has specified the general requirements and standards for GCB. It aims to provide common understanding on the scope, definitions, general requirements, grade and size classifications, method of preparation, sampling, methods of test for moisture content, packaging, marking and labeling, contaminants, and hygiene of GCB.⁶⁷

General Requirements

As a rule, the GCB shall conform to the following conditions:

- moisture content between 9.0%-12% to be tested in accordance with ISO 6673⁶⁸ or with the aid of moisture tester calibrated by any authorized government agency;
- free from musty, moldy, other foreign odor and taste;
- fairly uniform in size and not more than 10% shall pass through sieve no. 13 round with apertures having nominal diameter of 5 mm as described in ISO 4150;⁶⁹
- homogenous species; and,
- free from insects and other foreign matters.

Grading Classifications and Sampling

Green coffee beans must be graded according to the proportion of defects present in a 300-gram sample as enumerated in Table 26 while the maximum percentage of defect per grade is reflected in Table 27 and the size classifications in Table 28. The sampling method to be used should be in accordance with ISO 4072⁷⁰.

⁶⁷ Source: PNS/BAFPS 01:2012

⁶⁸ ISO 6673:2003 refers to standards for Green Coffee-Determination of Loss of Mass at 105 degrees C.

⁶⁹ ISO 4150:2011 refers to standards for Green Coffee or Raw Coffee -Size Analysis-Manual and Machine Sieving.

⁷⁰ ISO 4072:1982 refers to standards for Green Coffee in Bags – Sampling

Table 26. Grades for Green Coffee Beans

GRADE	SPECIES			
	TOTAL DEFECTS OF 300 GRAM SAMPLE % BY MASS, MAXIMUM			
	ARABICA	EXCELSA	LIBERICA	ROBUSTA
1	7	10	10	10
2	15	15	15	15
3	20	25	25	25

Source: PNS/BAFPS 01:2012

Table 27. Breakdown of Defects per Grade Specifying Maximum Percentage per Defect

TYPE OF DEFECT	GRADE %			
	1	2	3	4
Black beans	4	6	9	15
Infested beans	4	5	7	8
Broken beans	3	5	7	10
Immature beans	2	3	5	8
Husks beans	1	1.5	2	3
Husk's fragment	1	1.5	2	3
Fermented/sour beans	1	1.5	2	3
Foreign matter	1	1	1	2
Admixture	0.5	0.5	1	2

Source: PNS/BAFPS 01:2012

Size Classification

Table 28. Size Classifications of GCBs per Coffee Variety

SIZE	VARIETY				
	ARABICA		ROBUSTA	LIBERICA	EXCELSA
Large	Beans retained in sieves of 7.93 mm openings; numbering less than 175 beans per 25 g	<u>Dry Processed</u> Beans retained by 5.6 mm x 5.6 mm (3½ mesh) screen with maximum of 1% (mass/mass) passing through	<u>Wet processed</u> Beans retained by a screen having round holes of 7.5 mm diameter with a maximum of 2.5% (mass/mass) passing through	Beans retained in sieves of 9.52 mm openings; numbering less than 10 beans per 25 g	Beans retained in sieves of 7.93 mm openings; numbering less than 125 beans per 25 g
Medium	Beans retained in sieves of 6.73 mm openings; numbering 175-200 beans per 25 g		Beans passing through a screen having round holes of 7.5 mm diameter and retained by a screen having round holes of 6.5mm diameter with a maximum of 2.5% (mass/mass) passing through	Beans retained in sieves of 7.93 mm openings; numbering 110-145 beans per 25g	Beans retained in sieves of 7.93 mm openings; numbering 125-160 beans per 25g

Small	Beans retained in sieves of 6.35 mm openings; numbering 201-250 beans per 25 g		Beans passing through a screen having round holes of 6.5 mm diameter and retained by a screen having round holes of 5.5 mm diameter of 2.5% (mass/mass) passing through	Beans retained in sieves of 6.7 mm openings; numbering 146-200 beans per 25 g	Beans retained in sieves of 6.35 mm openings; numbering 162-200 beans per 25 g
Mixed	A mixture of any 2 or more classes none is smaller than class small			A mixture of any 2 or more classes none is smaller than class small	A mixture of any 2 or more classes; none is smaller than class small

Source: PNS/BAFPS 01:2012

Other Standards

Table 29. Other Required Standards for GCB

CATEGORY	RECOMMENDATIONS
Marking and Labeling	Each sack of green coffee beans shall be marked with the following information: <ul style="list-style-type: none"> • Name of product; • Species; • Grade; • Net mass; • Name and address of producer/trader/exporter or Country Code/Exporter's Coder/Parcel No.; and, • Product of the Philippines
Contaminants	Green coffee beans shall comply with those maximum levels allowed for heavy metals and pesticides established by the Codex Alimentarius Commission and/or authority for this commodity.
Hygiene	Produce covered by the provisions of this standard be prepared and handled in accordance with appropriate sections of the Recommended International Code of Practice General Principles of Food Hygiene (CAC/RCP 1 – 1969, Rev. – 2003), and other relevant Codex texts such as Codes of Hygiene Practice and Codes of Practice. Produce should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

Source: PNS/BAFPS 01:2012

GCB Processing Method

Both the dry and the wet methods can be used to remove the beans after the ripe cherries have been harvested. The Philippine Coffee GAP recommends the following hygienic steps, in both the dry and wet methods, with consideration to relevant Good Manufacturing Practices (GMP) principles for all stages of primary processing of coffee beans.

Dry Method

The dry method is the oldest and the most basic technique. The process entails drying the entire cherry. This method produces the so called "dry-processed", "unwashed", or "natural coffee".

- Segregate unripe, overripe, and damaged cherries.
- Clean the cherries by removing dirt, soil, twigs, and leaves (ripe cherries can also be separated by flotation in washing channels, which are installed close to the drying areas).
- Dry the coffee cherries under the sun, either on large concrete or brick patios or on matting raised to waist height wire mesh tables. For better quality, the use of an 'all weather drier' as shown in Figure 25 is highly recommended.
- Rake/Turn the cherries 2-3 times a day to ensure even drying. Drying time may take anywhere between 10 days to 3 weeks, depending on weather condition and volume, to ensure optimum moisture content of 11-12%). Some large corporations use mechanical driers to hasten drying after the cherries are pre-dried in the sun for a few days.



Figure 25. Sample of an All-weather Dryer for Coffee⁷¹

Wet Method

While the wet method requires more capital (needs a depulper), more water and more care, it produces better quality of GCB (homogenous and less defective GCB), commands higher prices, and thus, higher income. The wet method is recommended for ripe cherries only. GCBs produced from this process are generally labelled as “wet-processed, “washed”, or “mild coffee”.

- Clean cherries by washing the cherries in tanks filled with clean water immediately after harvest.
- Sort cherries either manually or through screens to facilitate separation of large and small cherries.
- Perform depulping mechanically using a depulping machine immediately after harvesting to avoid any deterioration of the cherries which later might affect the quality of the beans.
- Ensure to remove all residual flesh as well as sticky mucilage that adhere to the parchment surrounding the beans to avoid contamination of the coffee beans from the degradation of the mucilage.
- Place the newly depulped beans in large fermentation tanks filled with clean water to start the fermentation process. The mucilage is broken down by natural enzymes and this can be easily washed away. Generally, mucilage removal takes between 12 - 24 hours depending on the temperature, thickness of the mucilage layer and concentration of the enzymes.
- Manually feel the beans for a rougher “pebbly” feel as the parchment surrounding the beans loses its slimy texture. This signals the end of the fermentation process too.
- Wash the coffee thoroughly with clean water to remove the remaining parchment.
- Dry the parchment coffee in the sun, in a mechanical dryer, or by a combination of the two, to attain the optimum moisture content of 12%.
- * Do sun drying preferably on elevated tables made of fine mesh netting to encourage proper air circulation and ventilation; takes 8-10 days depending on temperature and humidity
- * Use of mechanical dryers become necessary to speed up the process in large plantations especially during the peak of the harvesting period wherein the volume vis-à-vis the available space is insufficient
- * Control and monitor carefully mechanical drying to achieve satisfactory and economical drying without any damage to quality.

71 Ibid; design as prescribed by the Philippine Center for Postharvest Development and Mechanization

Semi-Washed Method

Training materials from the ATI and PhilCAFE Project⁷² mention three methods depending on the preference of the market or buyer. This is with the addition of the semi-washed method which produces the so-called “pulped” or “honeyed” coffee which is almost like the dry method except that it includes removing the bean pulp.

GCB Packaging and Labeling

The dried cherry and/or parchment coffee is bulk packed in silos or bags before being transported to the mill, where it is dehulled, sorted, graded, and bagged.

- Pack and seal GCBs in bags made of food grade or non-toxic materials such as jute sacks. Do not use Bags that were used to store chemicals, fertilizers and feeds.
- Put/attach an imprinted label on the sacks/bags indicating the production batch number and date, the cooperative/farmer/area presented in codes.

GCB Storage

- Place bagged GCBs in pallets or similar material so that it will not be in direct contact with the ground.
- Ensure that storage sheds are weather-proof, well ventilated, free from moisture and insect pests and located away from sources of smoke and other odors that may contaminate the coffee.
- Design storage facilities to minimize damage to the coffee.
- Regularly monitor moisture content of the GCBs while in storage to maintain the maximum 12%.
- Keep storage area clean to avoid pest infestation.

The simplified step by step processes for each method are summarized and illustrated in Table 30 and Figure 26 and 27.

Table 30. Summary of Steps in Processing Green Coffee Beans up to Storage, by Method

STEP NUMBER	NATURAL/ DRY METHOD	PULPED OR HONEY / SEMI-WASHED METHOD	FULLY WASHED OR WET METHOD
1	Flotation	Flotation	Flotation
2	Pre-Sorting	Pre-Sorting	Pre-Sorting
3	Drying	Pulping	Pulping
4	Dehulling	Drying	Fermentation
5	Sorting	Dehulling	Washing
6	Packaging	Sorting	Drying
7	Storage	Packaging	Dehulling
8		Storage	Sorting
9			Packaging
10			Storage

Source: PhilCAFE Project Training Material , Code of GAP for Coffee⁷³

⁷² As cited in PRDP Mindanao VCA for Coffee

⁷³ As cited in PRDP Mindanao VCA for Coffee

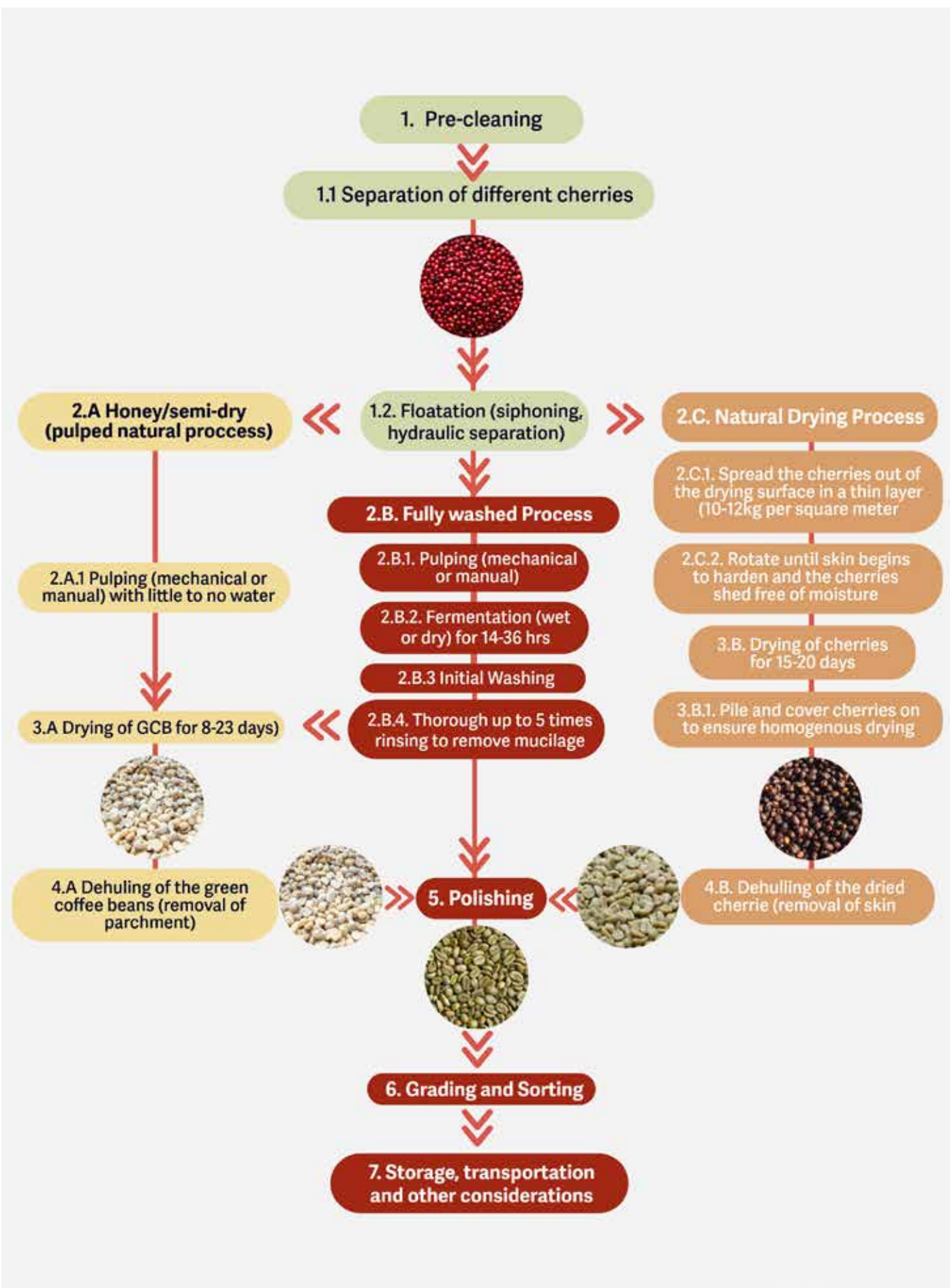


Figure 26. GCB Processing Flow, by Method⁷⁴



Figure 27. GCB Processing Illustrated⁷⁵

Secondary Processing: Roasted and Ground Coffee

Roasting Coffee

Roasting refers to the chemical technique that should improve the flavor, acidity, aftertaste, and body of the coffee by creating, balancing, or altering aromatics, acids, and other flavor components. Specifically, phenols and antioxidants are formed during the process. Phenols compounds contribute to quality and nutritional value in terms of modifying color, taste, aroma, and flavor and also in providing beneficial health effects. Meanwhile, antioxidants provide health benefits in preventing diseases such as heart disease and cancer.




Length of time and temperature are the critical factors in roasting coffee at temperatures ranging from 350-450 degrees Fahrenheit or about 200-225 degree Centigrade for 15-20 minutes. In the process of roasting, the beans lose 20-22 of its moisture and about 10-15% of its caffeine. There are three types of roasts – light, medium and dark with characterization of each summarized in Table 31.


75 Ibid



Figure 28. Coffee Roaster⁷⁶

Table 31. Characterization of Roasted Coffee Beans

CLASSIFICATION	TEMPERATURE OF ROASTING	COLOR	OIL ON SURFACE OF BEANS	ACIDITY AND FLAVOR
 <p>Light Roast</p>	<p>350-400 degrees Fahrenheit</p> <ul style="list-style-type: none"> hardly reach the "first crack" stage, where the vapors inside the beans penetrate the outer wall and make a "cracking" noise 	Light brown	No oil on surface	<ul style="list-style-type: none"> crisp/high acidity mellow body bright flavors
 <p>Medium Roast</p>	<p>400-430 degrees Fahrenheit</p> <ul style="list-style-type: none"> roasted a little beyond first crack, but not all the way to second crack 	Brown	Rarely has oily surface	<ul style="list-style-type: none"> medium acidity medium body rounded flavor profile slightly darker and sweeter
 <p>Dark Roast</p>	<p>430-450 degrees Fahrenheit</p> <ul style="list-style-type: none"> typically reach second crack, if not a little beyond 	Dark brown color	Often has oily surface making its shelf life shorter	<ul style="list-style-type: none"> low acidity heavy body deeper darker flavors (chocolaty, nutty, and caramel flavors)

<p>Dark Roast</p> 	<p>430-450 degrees Fahrenheit</p> <ul style="list-style-type: none"> typically reach second crack, if not a little beyond 	<p>Dark brown color</p>	<p>Often has oily surface making its shelf life shorter</p>	<ul style="list-style-type: none"> low acidity heavy body deeper darker flavors (chocolatey, nutty, and caramel flavors)
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Source of basic data: ATI; <https://www.javapresse.com/blogs/buying-coffee/differences-between-light-medium-dark-roasted-coffee>

From traditional roasting of coffee beans through manual use of cooking pan, fire and kitchen, coffee farmer groups and micro, small and medium enterprises (mSMEs) are now using roasting machines that resulted to even roasting and better roast quality and higher price.



Figure 29. Mechanical versus Traditional Coffee Roasting⁷⁷

Some players practice blending before roasting (BBR). To enhance the sensory qualities of the coffee (acidity, fragrance, body, flavor, aftertaste), different varieties are blended to produce a unique-flavored blend. Other than creating unique coffee flavors, blending is also done for two other reasons: for cost reduction and consistency. Due to fluctuations in supply, price, quality, as well as in the manner and location of distribution, the original source is not always consistent.

When the desired roast has been reached, the beans are then quickly dumped into a cooling drum with mixing arms. In a process called water quenching, water can be sprayed from inside the revolving drum just before the roast is done. Roasted beans are often kept for no longer than 14 days before being grounded and used to get optimum results.

It used to be difficult to find distributors or dealers of coffee equipment in Mindanao. There have been more sellers of coffee roasters and other machines established in Mindanao because of the recent spike in demand for high-quality coffee and growth in the number of coffee shops in various locations. These coffee roasting machines are sold by several coffee roasters. Specifications and costs for coffee roasting machines vary depending on brand and capacity.

Grinding Coffee

Grinding exposes the beans' cell wall and prepares the beans to release their flavor during brewing. Since ground coffee loses its aroma and taste very quickly, roasted coffee must be grinded right before brewing. Degrees of grind are classified as: coarse, medium, fine, extra fine, and Turkish. The fine grind is almost equivalent to powdered coffee.

77 Source: Google photos



Figure 30. Different Sizes of Ground Coffee⁷⁸

Shown in Table 32 is the coffee grinding chart with the suggested coffee brewing method for each degree of grind.

Table 32. Coffee Grinding Chart


DEGREE OF GRIND (SIZE)	DESCRIPTION	COFFEE BREWING METHOD
Coarse	<ul style="list-style-type: none"> Very distinct particles of coffee, much like heavy- grained salt 	<ul style="list-style-type: none"> Plunger Pot French Press Percolator Vacuum coffee pot
Medium	<ul style="list-style-type: none"> Gritty, like coarse sand 	Drip coffee makers with flat bottom filters (BUNN, Bloomfield, etc.)
Fine	<ul style="list-style-type: none"> Smooth to the touch a little finer than granular salt 	Drip coffee makers with cone shaped filters (KRUPS, Cusinart, etc.) Espresso moka pots
Extra Fine	<ul style="list-style-type: none"> Finer than sugar but not quite powder 	<ul style="list-style-type: none"> Espresso machines - pump Espresso machines - steam
Turkish	<ul style="list-style-type: none"> Finest grind, looks like flour and feels like powder 	Ibrik

Source of basic data: ATI

Brewing Coffee

Brewing is the art of maximizing the extraction of flavors of the roasted beans while reducing the flavors and components that should not be extracted. Table 33 shows the different coffee brewing techniques.

Table 33. Different Coffee Brewing Methods

BREWING METHOD	DESCRIPTION
Drip Method 	<ul style="list-style-type: none"> Most common method which uses automatic or manual drip coffee makers. Water is heated within the electronic drip machine to almost boiling.

78 <https://www.silvacoffee.com.au/blogs/news/coffee-grinding-explained>

<p>French Press</p> 	<ul style="list-style-type: none"> Coffee grounds are added directly to a pot of hot water, and after they “steep”, you press down a plunger inside the pot to strain the grounds to the bottom of the pot.
<p>Percolator</p> 	<ul style="list-style-type: none"> The desired quantity of water is poured into the water chamber of the pot and the desired amount of a coarse-ground coffee is placed in the top chamber
<p>Espresso</p> 	<ul style="list-style-type: none"> Hot water is injected through the coffee grounds directly into the cup, either via steam pressure— using a pump—or by piston. The grind and tamp pressure need to be combined in such a way that brew time is 20 to 25 seconds.
<p>Ibrik</p> 	<ul style="list-style-type: none"> An ibrik is a small metal cup on the end of a fairly long handle. Pulverized coffee— with a texture resembling talcum powder—is placed into an ibrik along with water. Sugar can be added at this time. This mixture should be brought to a light boil three times, removing the ibrik from the flame quickly as foam begins to rise.

Source of basic data: ATI

Branding

Essentially, branding is used to characterize the product’s name, design, and description. It aims to differentiate one company’s product from another and show the difference between a company’s product from its competitors. One effective branding technique is the use of slogans.

Packaging

Packaging serves as a marketing tool to mimic the brand of the product. The packing approach is typically used by a business to sell its goods in a cutthroat market. When it comes to packaging, people pay attention to the colors, typeface, descriptions, and logos.

Other GAP and GMP Requirements Across VC Segments

Equipment Maintenance

- Clean and sanitize all utensils, equipment and machinery before and after use and in a manner that protects the coffee against possible contamination.
- Use, store and label cleaning agents in accordance with the manufacturer’s instructions and relevant regulations.
- Ensure that processing equipment conforms to applicable standard(s) indicating the manufacturing and performance requirements.

Processing Facility Design and Establishment

- Ensure compliance with GMP standards and general principles of food hygiene.

Control of Operation

- Keep records of production, processing and distribution to facilitate traceability (applicable to farmers and processors) with the following information:
 - » types, species and sources of planting materials;
 - » types of pesticides and fertilizer and usage;
 - » production site with lot codes;
 - » suppliers of agricultural inputs;
 - » soil and water management practices;
 - » use of agricultural chemicals;
 - » water quality and safety;
 - » processing including the date, method and final volume of processed cherries; and
 - » pest control and cleaning schedules of premises, facilities, equipment and containers;
 - » related trainings;
 - » volume of production, and;
 - » cost of production.
- Workers' Welfare, Health and Hygiene

Table 34. Coffee GAP's Recommendations for Workers' Welfare, Health and Hygiene

CATEGORY	RECOMMENDATIONS
Labor Conditions	<ul style="list-style-type: none"> • All workers should be 18 years of age and above or should follow the minimum working age defined by the applicable local law. <ul style="list-style-type: none"> » Workers that are below 18 years of age may be allowed to help in the farm under strict conditions that includes considerations on: appropriateness of assigned work versus the age and physical condition of the worker, duration of working hours, working condition, and availability of supervision and guidance during operations. • There should be no cases of forced labor and forced eviction. • There should be no prohibition on membership or representation by labor unions. • Where provided by an employer, living quarters should be suitable for human habitation and contain basic services and facilities.
Personal hygiene and sanitary facilities	<ul style="list-style-type: none"> • Availability of hand-washing facilities with provisions of soap and clean running water during harvesting and postharvest handling operation • When gloves are used in the operation, there should be a proper and regular cleaning and sanitation • If disposable gloves are used, they should be discarded when torn, soiled, or otherwise contaminated
Trainings	<ul style="list-style-type: none"> • Training on hygiene instructions should be conducted annually • Evidence on the conduct of training and instructions are followed should be kept • Regular environmental and personnel hygiene assessment as well as sanitary inspection of facilities should be conducted to serve as basis for corrective and preventive actions. • Subcontractors and visitors are made aware of relevant procedures on personal safety and hygiene (e.g., relevant instructions and signages are in visible places where all visitors or subcontractors can read them).

Source: Code of GAP for Coffee

Product Information and Awareness

The same as enumerated in Table_ pertaining to the General Principles of Food Hygiene and the Philippine National Standard for Green Coffee Beans (PNS/BAFPS 01:2012).

3.2.4. Trading and Final Sale of Coffee Products

Trading or marketing is the act of buying and selling coffee products in either a physical or virtual setting. On both domestic and foreign markets, GCB is the most frequently traded in terms of volume. The GCB are traded to institutional buyers for value adding activities to make it consumable.

Most Traded Coffee Product Forms

In the case of Basilan and Sulu, however, the most traded coffee product form is dried cherry with pulps. These are then processed by processors into roasted coffee beans, ground coffee, and powdered coffee as these are the common products produced (see Section 3.3.3).

3.3. Key Value Chain Segment Actors

This section describes the coffee VC players per segment. While the list of players mentioned here may not be very exhaustive down to the last number, this gives already a triangulated figure from different sources and idea of who are the major ones. Also contained herein are the range scale and/or capacity of operations, number of staff/employees, suppliers and next level buyers, practices and technologies, as well as firm level constraints, among others.

3.3.1. Input Suppliers

Planting Material Suppliers

In recent years, many coffee seedlings have been distributed for free by both provincial LGUs through the local coffee associations/cooperatives. These planting materials came from the government (MAFAR- High Value Crops Development Program or HVCDP, DA, ATI and the Philippine Coconut Authority or PCA with coffee being intercropped among coconut trees) which are sourced from BPI-accredited nurseries in mainland Mindanao and Luzon since there is no BPI-accredited nursery in the province. While there are three (3) accredited nurseries with coffee in BARMM, these are all based in Maguindanao province and none in the BASULTA area⁷⁹. There are also some non-government organizations (NGOs) that distribute planting materials.

Farmers in Basilan said that they would prefer Excelsa seedlings since this variety withstands hot temperatures better. There are relatively new entrants in coffee farming in Basilan as people are again optimistic of the future of the coffee industry in their province. They see the opportunity as they observed that demand is higher than their current supply, which is corroborated in the processors sub-section of this report.

In Basilan, some cooperatives, such as the Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative (SCARBDC), Tairan Agrarian Reform Beneficiaries Multi-Purpose Cooperative (TARBMC) and the Tumahubong Agrarian Reform Beneficiaries Integrated Development Cooperative (TARBIDC), have become the source of coffee seedlings of their respective members owing to their reputation of being a source of good quality seedlings.

In Sulu, the Kankitap Consumer Cooperative (KCC) also operates its own nursery and sells Robusta seedlings at P20/ piece to both its members and non-members alike.

Still other coffee farmers in both provinces get their planting materials from their own coffee trees which they inherited from their ancestors/families either via seedling preparation or simply uprooting the wildings under the parent coffee tree.

Constraints

Due to absence of BPI-accredited nurseries in these island provinces, the distributed seedlings are still being sourced from far-away BPI-accredited nurseries such as from Kidapawan City, North Cotabato in mainland Mindanao or from Batangas in Luzon.

Aside from high transportation cost⁸⁰, the long-distance travel and transfers likewise led to lower survival rate of seedlings as seedlings are sensitive to stress. There are also concerns on farmers finding out during fruiting that distributed planting materials turned out to be other varieties than what was declared during seedling distribution.

Other Agricultural Supplies/Inputs Suppliers

Several enablers including from MAFAR, LGUs, national government agencies (NGAs), and NGOs provide and distribute for free other implements/machineries, and supplies and materials (e.g., shovel, bolo, hats, tractors, hog wire for fencing, etc.).

The Sulu Coffee Federation is also another supplier of farm inputs but on a credit basis. There are also other private suppliers from whom other coffee farmers procure their farm implements and other farm inputs which coffee farmers can purchase from.

⁷⁹ Source: PRDP Mindanao VCA for Coffee

⁸⁰ Approximately P20 per seedling is the cost in transporting one seedling from its source in the mainland to Sulu. Source: MAFAR Staff

Constraints

Due to a limited supply of organic fertilizers suitable for growing coffee, many coffee farmers in Mindanao utilize inorganic fertilizer. About 25% to 30% of the overall cost of producing coffee is spent on fertilizers. Farmers with little resources find it nearly impossible to get chemical inputs due to its high cost. In some instances, in other areas in Mindanao, traders or assemblers lend money to or directly supply their farmer-supplier with the needed chemical inputs. This helps farmers fund their input needs in the short term, but it frequently also ties them to high interest rates and/or discounted buying price of coffee.

In Basilan, farmers are wanting fertilizers for their coffee trees since they believe that this will help in increasing harvest and productivity.

Financers

Regular and Micro Financing

Some coffee VC players in Sulu sourced their needed capital from relatives while others got their financing from their respective cooperatives via their capital build-up (CBU). For instance, KCC offers micro lending for up to 75% of its members' capital build up (CBU) at a 2% monthly interest rate.

Some others sourced their capital needs from the Landbank of the Philippines (LBP). During the KIIs, a farmer also mentioned that their cooperative was able to access financing from MAFAR through its MAFAR-LENDS Program.

The majority of the key informant farmers from Basilan are aware of the availability of financing institutions in the province, especially the microfinance NGOs such as ASA Philippines Foundation (ASA), Center for Agriculture and Rural Development (CARD), Inc. and KMMDDI but none of them availed. The other farmers, especially in Sulu, don't know of any financing institution.

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Table 35. Financing Channels Known to Coffee VC Players Informants in Basilan and Sulu

VC PLAYER	BASILAN		SULU	
	FORMAL	INFORMAL	FORMAL	INFORMAL
Farmer	Microfinancing: ASA, KMMDDI	No answer	Cooperative (via CBU) Bank: Landbank MAFAR LENDS	Relatives
Processors	MTIT MOST	No answer	Not aware of any	No answer
Traders	Bank: Landbank Microfinancing: CARD, ASA			
Traders	Bank: Landbank	No answer		

Source of basic data: KIIs with coffee VC players

United Workers Agrarian Reform Beneficiaries Multi-Purpose Cooperative (UWARBMPC) of Basilan was able to secure financing from Landbank worth Php 70 million payables in 25 years using property title as collateral. A project feasibility study (FS) was also required by the bank.

Many coffee farmers from Sulu cited no awareness of any financial institution in their area.

Islamic Financing

As the great majority of the local populace in Basilan and Sulu are Muslims, the prospects of access to Islamic financing are large. Al Amanah Islamic Investment Bank of the Philippines (AAIIBP) is a “universal bank authorized to perform and provide Islamic banking, financing and investment services pursuant to R.A. 6848, otherwise known as the Charter of the Al-Amanah Islamic Bank of the Philippines of 1990.” AAIIBP has no branch in Basilan but only in Jolo with branch address at G/F Honeybee Bldg. Serantes St., Jolo, Sulu. No body from all respondents, however, has availed of Islamic financing in either province.

Constraints

Despite their knowledge on the availability of financing institutions, none of the farmer key informants from Basilan has availed yet of financing, especially from formal channels due to the reasons cited in Table 36. The table also contains the reasons of those who are unaware of any financial institution in their area. The other coffee VC players in both provinces also have fears and apprehensions on availing of financing, regular and Islamic.

Table 36. Reasons for Non-Availment of Financing

VC PLAYER	REGULAR FINANCING		ISLAMIC FINANCING	
	BASILAN	SULU	BASILAN	SULU
Farmer	<ul style="list-style-type: none"> Afraid of availing loans now since they just started coffee farming again after the old, senile and unproductive coffee trees were cut down (may apply once coffee trees are productive again); Fear of having no capacity to pay given low coffee harvest; Defer application to a later date when plans for rehabilitating old and unproductive coffee trees will be finalized. Capital will be necessary as a start-up. 	<ul style="list-style-type: none"> Landbank has numerous and stringent requirements during application No lending agencies in the barangay (Omar, Kalingalan Caluang) Nobody wants to lend due to peace and order situation (Patikul) Far flung community (Parang) 	No Islamic financing institution in Basilan	<ul style="list-style-type: none"> While AIIDBP has a branch in Sulu, many coffee farmers in Sulu are not aware that there is Islamic financing in the province Perceived high interest Less reached by support from government (Omar) No idea of any financing institution
Processors	<ul style="list-style-type: none"> Afraid not to meet the target on paying the finances Waiting for steady supply of beans Waiting for processing to re-operate once there's steady supply of beans already 	No answer	<ul style="list-style-type: none"> Financially capable Not available in the area 	<ul style="list-style-type: none"> No access in the area Banks require at least 3 years in operation (still 2 years in the business)
Traders	<ul style="list-style-type: none"> Financially capable 		<ul style="list-style-type: none"> Financially capable Not available in the area 	

Discussed in Section 5.1 in this report are the eligibility requirements and criteria for borrowing of Landbank's available

financing window for small holder farmers and mSMEs.

While the MAFAR-LENDS is interest-free, it requires a Certificate of Compliance (COC) from the Cooperative Development Authority (CDA). One of the requirements for COC is an audited financial statement (AFS) prepared and signed by a CDA accredited accountant which will cost around Php10,000. For cooperatives who don't have the technical know-how in preparing FS, they will have to outsource the job and it will cost another P10,000.

3.3.2. Farmers

Coffee Farmers

About half of an average farming household size of 4-8 members in Sulu⁸¹ are involved in coffee farming. In the case of Basilan, which has 6-8 members in a farming household, only 2-3 members are engaged in coffee farming. This is why most farmers who own relatively small lands no longer hire farm workers as the household members provide the needed manpower and help in the farm.

Table 37. Average Household Composition of Coffee Farmers in Basilan and Sulu, as of October 2023

SOURCE	NUMBER OF HOUSEHOLD MEMBERS	
	TOTAL	ENGAGE IN COFFEE FARMING
BASILAN		
OPAG-Basilan	6-8	2
OMAS-Sumisip	-	2
KII with coffee farmers	-	2-3
SULU		
OPAG-Sulu	7-8	3-4
MAFAR -Sulu	-	3
OMAS – Talipao	-	4
OMAS – Indanan	4	3
MMO – Maimbung	-	3-4
MMO - Patikul	-	2-3

Source of basic data: MAFAR Sulu, OPAG Sulu and OMAS Talipao and Indanan, MMO-Maimbung, MMO-Patikul, KIIs with coffee farmers

In terms of the number of actual coffee farmers, an inconsistency on the data estimates provided by OPAG Sulu and MAFAR Sulu as well as that of the Sulu PCIP was noted as shown in Table 38. To address this discrepancy, data triangulation was done resulting to the average number of coffee farmers in the province being 3,303 more or less. While the number of farmers per municipality can be approximated by simply dividing the number of total coffee farmers by the total number of municipalities of the province, it will not be wise to do so since the Sulu PCIP revealed a distinct sharing of each municipality (as shown in Table 39). The figure for Hadji Panglima Tahil appears odd though since it has no recorded production. Moreover, MMO Patikul reported an estimate of 500 coffee farmers in the municipality alone as of October 2023.

Table 38. Data Estimates on the Number of Coffee Farmers in Sulu, as of September 2023

DATA SOURCE	APPROXIMATE NUMBER OF COFFEE FARMERS	
	PROVINCE-WIDE	
OPAG-SULU	2,550	2
MAFAR-SULU	6,150	2
PCIP Sulu	1,209	2-3
Average	3,303	

Source: OPAG-Sulu, MAFAR-Sulu, PCIP Sulu

Table 39. Number of Coffee Farmers in Sulu, by Municipality, 2016

MUNICIPALITY	NUMBER OF FARMERS	PERCENT SHARE
Hadji Panglima Tahil	785	64.93%
Indanan	113	9.35%

⁸¹ Per PSA data, Sulu had an average household size of 6 persons.

Jolo	80	6.62%
Kalingalan Caluang	52	4.30%
Lugus	42	3.47%
Luuk	27	2.23%
Maimbung	25	2.07%
Omar	25	2.07%
Panamao	19	1.57%
Pandami	17	1.41%
Panglima Estino	15	1.24%
Pangutaran	5	0.41%
Parang	2	0.17%
Pata	1	0.08%
Patikul	1	0.08%
Siasi	0	0.00%
Talipao	0	0.00%
Tapul	0	0.00%
Banguingui (formerly Tongkil)	0	0.00%
TOTAL	1,209	100.00

Source of data: Sulu PCIP 2020-2023

OPAG-Basilan estimated about 400 coffee farmers in the province, association/cooperative affiliated and not. Meanwhile, data on the number of coffee farmer members from the five cooperatives interviewed stood at 365.

Meanwhile, the City Agriculture Office (CAO) of Lamitan City shared a listing of 42 coffee growers excluding that of the SCARBDC members. Attached as Annex D is the detailed listing. These individual coffee growers, when combined with that of SCARBDC members, own a total of 78,420 coffee trees. This total number of coffee trees, however, only constitutes roughly 8% of PSA reported total coffee bearing trees in the province.

Table 40. Estimated Number of Coffee Farmers in Basilan, by Municipality/City

MUNICIPALITY	NUMBER OF COFFEE FARMERS
Akbar	No data
Al-Barka	No data
Hadji Mohammad Ajul	No data
Hadji Muhtamad	No data
Lantawan	13*
Maluso	No data
Sumisip	80*
Tabuan-Lasa	No data
Tipo-tipo	No data
Tuburan	No data
Ungkaya Pukan	No data
Isabela City	No data
Lamitan City	314**
TOTAL	~407

Source: *Klls with cooperatives based in the municipality

**Including 42 non-coop members as reported by Lamitan MAO

Age of Coffee Farmers

Most of the coffee farmers are already aging including those who were interviewed during the KII with the oldest at 81 and the youngest at 30.

Farmer Groups and Cooperatives

See Section 3.3.5.

Farm Size

As mentioned in the introduction of this report, small coffee holders produce more than three-fourths of total coffee production globally. Smallholder coffee farms are defined as those with an area of 2 hectares or less; plantation farms are defined as those having an area more than 2 hectares. On average, coffee farms in Sulu range from 0.25 – 3.0 hectares⁷² while Basilan's coffee farms range from 1-4 hectares⁷³. This is with exemption of a few farmers who have bigger coffee farm hectareage (e.g., one farmer respondent in Sulu has a 30-hectare diversified coffee farm).

Land Ownership

Based on the KIIs with coffee farmers, most land ownership among coffee farms in Sulu is either owned or shared. The same is also true in Basilan but with the addition of leased and tenanted farms.

Coffee Varieties Grown

As presented in Section 2.1.2, both Basilan and Sulu produce the four most commercially important coffee varieties – Arabica, Excelsa, Liberica and Robusta.

Cropping System

The Basilan OPAG reported that 85% of coffee farmers are intercropping their coffee farms mostly with coconut as Basilan is a top producer of coconut. The other farmers also grow coffee along with other crops like banana, fruit trees, corn, root crops and vegetables, among others. The remaining 15% of coffee farmers do monocropping.

Per data from the Sulu's OPAG and several of its OMAS, around 98-100% of coffee farmers in Sulu practice diversified coffee farming with other fruit trees and other cash crops such as coconut, lanzones, durian, mangosteen, rambutan, mango, cassava, banana as well as with root crops such as cassava. Only about 2% have coffee plants as monocrops. In the case of Patikul, however, its MMO reported that 40% practice monocropping while the greater 60% do intercropping with banana, coconut, other fruit trees and vegetables.

Table 41. Coffee Cropping System in Basilan and Sulu

CROPPING SYSTEM	PERCENT OF FARMERS PRACTICING	CROPS PLANTED ALONGSIDE WITH COFFEE
BASILAN		
Monocropping	15%	n.a.
Intercropping	85%	Coconut, banana, fruit trees, corn, rootcrops, vegetables, etc.
SULU		
Monocropping	0-2% Patikul: 40%	n.a.
Intercropping	98-100% Patikul: 60%	Coconut, lanzones, durian, mangosteen, rambutan, mango, cassava, banana, vegetables, etc.

Source of basic data: OPAG-Basilan; OPAG-Sulu; OMAS of Talipao and Indanan; MMOs of Maimbung and Patikul

Farming Practices

Since a greater majority of the coffee farmers in Basilan and Sulu have small farm areas, seldom that they hire laborers for their farm. Family members and relatives commonly help out on the farm. Among the coffee farmer key informants, only one hires laborers to do farm management costing him Php 1,500/hectare.

Generally, coffee farmers in the two provinces don't see any unique practice in their coffee farming as they just continue the farming practices and knowledge from their parents. One farmer in Sulu quipped that he's proud of his naturally grown coffee with zero synthetic fertilizer though he has no organic certification.

Since coffee farming has been a century old economic activity in both provinces, coffee trees in these areas are a mix of old and newly planted ones.

Harvesting Practices

Just like anywhere else in the country, coffee harvest season in Basilan and Sulu also happens somewhere between October to March. Once a coffee tree's cherries start to ripen, harvesting can last up to three (3) months on average. Frequency of harvest is once to twice a year. One farm in Basilan reported harvesting as much as three times a year.

Harvesting methods employed by coffee farmers in Basilan and Sulu are either single pass striping or locally termed as the all-in or "armalite" method or selective picking commonly termed as "pick red". It is good note though that among the 12 of the 16 (75%) farmer key informants, are already practicing "pick red/ripe" harvesting method.

Interestingly, farmers using the pick red method in Sulu categorically expressed that they chose this method to improve bean quality and access good markets with good prices. Another farmer also stated that his learning from the series of trainings given by MAFAR and MTIT encouraged him to shift to this method.

It appeared that coffee farmers in Basilan have been practicing pick red using a ladder for a longer period already since they are in unison in saying that this has been the method that they know and have been using since then.

Those who are still using the all-in or armalite method expressed that this is their old practice that they inherited from their forefathers and is easier to do.

The above trend indicates an increased level of awareness among coffee farmers on the importance of the appropriate coffee harvesting method. Nonetheless, there's still a need to educate those who are still using the traditional Armalite method



Figure 31. A woman coffee farmer in Sulu harvesting coffee using the all-in armalite method

A farmer informant from Parang, Sulu hire help during harvesting with harvesters paid at P300/sack.

Drying Practices

Organized farmer groups such as cooperatives already make use of all-weather dryers (Figure 32) to produce good quality GCB. Covered with a roofing material made of polycarbonate, this table of dryer has a mesh screen bottom for the air to penetrate the bottom side of the coffee. Aside from preventing impurities and contamination, the use of an all-weather dryer also allows drying to continue even during bad weather, a good climate proofing strategy, and saves time and effort of farmers' viz the traditional drying under the direct heat of the sun along pavements. Farmers from Sulu also utilized this type of dryer for their grains as well as in drying mangosteen pulps. Sulu is a top producer of mangosteen, and many are already venturing into its value adding enterprise.



Figure 32. Coffee Drying Using an All-Weather Dryer at Kankitap Consumers Cooperative77

There are still coffee farmers in Basilan and Sulu, however, who are using the traditional/natural sun drying methods as shown in Figure 32.

Constraints

Not all farmers in Basilan and Sulu have access to all-weather dryers (Figure 33). The use of the traditional drying method has downsides including – prone to impurities and contamination and non-continuity of drying during bad weather, among others.



Figure 33. Coffee Drying Using Traditional and Natural Sun Drying Method in Sulu



Figure 34. Partially sundried cherry beans stored in sacks at Omar, Sulu

Percentage of Produce Sold

Farmers interviewed in Basilan answered that they intend to sell 100% of their harvest to sustain their household expenses as well as pay for the labor and other expenses. Their harvests were all accepted in the market especially because currently there is higher demand for coffee processing in the province. Nobody mentioned any quality issues.

For Sulu, farmers interviewed revealed that they retain 25%-50% of their harvest for household consumption and for seedling purposes. All of Sulu farmers' harvests are also accepted in their market.

Use of Modern Solar Technology for Farming and Harvesting

Nobody from the coffee farmer informants from Basilan has experience in utilizing modern solar technology for coffee farming or farming in general. But they are interested in using this method and hope that this will be introduced to them, especially those in the remote areas.

For coffee farmer informants from Sulu, several of them have experienced already the use of all-weather and green house type of solar dryers in drying their coffee (please see elaborate discussion in Section 3.2.3) and other grains as well as in irrigation.

Some coffee farmers made use of solar, but these are limited to lighting their homes.

Extension Services Availed

Some coffee farmers have attended training related to coffee farming while others have not. A farmer informant from Kalingalan Caluang remarked that farmers from her barangay have not attended coffee-related trainings yet. What they practice on the farm is all traditional learnings.

Through the different training provided by enablers, detailed list is shown in Section 5.3, some farmers availed of the following free training as reflected in Table 42.

Table 42. Trainings Related to Coffee Farming Attended by Coffee Farmers in Basilan and Sulu

AREA	TRAININGS AND SERVICE PROVIDER/SPONSOR
Basilan	<ul style="list-style-type: none"> • GAP and other trainings on coffee farming Coffee (MAFAR, MTIT, NGOs) • Cacao and coffee farming (ATI)
Sulu	<ul style="list-style-type: none"> • Coffee growing (Philippine Council for Agriculture and Fisheries or PCAF) • Pick ripe harvesting (DA) • Farm management (ACDI-VOCA) • Training of Trainers (TOT) on Coffee production and postharvest handling (ACDI-VOCA) • Coffee farming and enterprise (NGO) • Coffee clustering (Department of Trade and Industry or DTI, Coffee Federation)

Source: KII with coffee farmers

Most of the farmers remarked that they applied their learnings from the above training especially on pick ripe and GAP while one farmer was constrained with the deterioration of soil nutrients in his farm.

GAP Certification

Mos of the key informant farmers in the two provinces are not familiar with GAP for coffee (7 out of 8 farmer respondents in Basilan; 5 out of 8 farmer respondents in Sulu). Very few who have knowledge of GAP for coffee either heard it from a friend or previous buyer like Nestle or participated in GAP training. Nonetheless, those who are not yet familiar with it expressed their interest in learning GAP for coffee and requested this training.

Those who are knowledgeable of the GAP for coffee, either partially or fully practice it in their respective farms. Partial practice of GAP is in any or combination of the following: site identification, land preparation, fertilization, pruning, farm sanitation, pest and disease management, and harvesting operations.

Constraints

The small farmers seldom fertilize their coffee trees and not everyone practices proper farm management including pruning and rehabilitation of old trees.

A key informant farmer in Basilan shared that their coffee trees did not fully bear cherries, the flowers just all fell, and they have no idea of the reason behind. This prompted them to abandon their coffee trees.

Overall, there are no GAP nor organic certified farm yet in Basilan and Sulu. Reasons cited for non-GAP certification despite partial/full application of coffee GAP in respective coffee farms are: (1) absence of a certifying body in the province; and (2) registration process is hard for a common farmer and there's a lot of requirements. A lot of farmers are not aware of the Philippine Coffee GAP too.

Common coffee diseases faced by coffee farmers in Sulu are leaf spots, sooty molds, and aphids especially during wet seasons. The past outbreak of coconut scale insects or CSI (*Aopidiolus rigidus*), also locally known cocolisap, infestation in Basilan adversely affected many coconut farmers and likewise negatively affected coffee farming. Only about 20% of the infected coconut trees were able to recover per estimate of the OPAG. As the infected and dead coconut trees were cut down, the intercropped coffee trees were also damaged as coconut logs fell on them.

As many farmers don't have access to water and irrigation, coffee farmers do their planting during rainy seasons.

In times when there are threats of potential skirmishes, coffee farmers opt to harvest all berries at one time including the green ones via the "armalite" method. This adversely affects the quality of the GCB later since it should have been "pick ripe/red" only.

Crop Insurance

For their crop insurance needs, farmers in Sulu and Basilan revealed that there is no available insurance agency office such as the Philippine Crop Insurance Corporation (PCIC) in their respective provinces. The PCIC is the implementing agency of the Philippine government's agricultural insurance program. It is mandated to give farmers and fishermen insurance protection against losses brought on by natural calamities, plant illnesses, and pest infestations. It offers high value crops insurance, coffee included, along with its other insurance programs which also include rice and corn crop insurance, non-crop agricultural asset, livestock insurance, fisheries insurance, as well as credit and life term insurance.

While the nearest PCIC office to BASULTA is the Zamboanga City Field Office⁶⁹, an interview with PCIC IX personnel revealed that interested farmers and fishers need not personally visit the PCIC office but may apply via online

submission of the necessary requirements as enumerated below:

- Proposal Form (see Figure 35);
- Farm Plan and Budget;
- Photocopy of a valid identification card of the farmer/fisher;
- Registry System for Basic Sector in Agriculture (RSBSA) Certification; and,
- Certification of Loan Release, if farmer/fisher is a loaner from any lending institution.

If enrolled under the RSBSA, a coffee farmer can avail him/herself of the free insurance up to three (3) hectares provided by PCIC. While the insurance benefits will depend on the PCIC staff's assessment of the damage, a totally damaged coffee farm gets a maximum coverage of Php 50,000 per hectare.

The critical requirement then here is the RSBSA certification. The RSBSA, which is implemented by the DA, is a database that compiles basic information on farmers, farm laborers and fishermen. While registration is voluntary, it is now the basic requirement in availing agri-fishery government services particularly for the programs and projects of the DA, its bureaus and its attached agencies and corporations. This will also serve as the census of those who are into the agri-fishery sector⁷⁰.

Constraints

While crop insurance is a good climate proofing strategy for agri-fisheries activities, many farmers are not aware of this service. The very few who are aware said that there was no PCIC office in their province. During the KII, two (2) farmers from Sulu feedback that they found the PCIC requirements too many and too much for a farmer. It was also found out during KII with farmers that not all coffee farmers in Sulu are RSBSA registered yet (7 out of 8 respondents).

PCA Reference no: _____


 PHILIPPINE CROP INSURANCE CORPORATION		PROPOSAL FOR HIGH VALUE COMMERCIAL CROPS INSURANCE (Fully subsidized Insurance Program) CROP: _____			
NAME OF PROPOSER: ✓ _____					
ADDRESS: BRGY. _____					
DATE OF BIRTH: ✓ _____		SEX: ✓ _____	CIVIL STATUS: ✓ _____		
SPOUSE: ✓ _____		BENEFICIARY: ✓ _____			
CONTACT Nos. ✓ _____					
We/ I hereby propose/s the herein below described crops _____ plantation for insurance for a period of _____ From _____ to _____ noon _____					
Peril/s to be covered: _____ Desired Amount Of Cover/TSI PhP _____					
1. Name of Plantation/Coop/LI/Farmer: _____					
Farm Location		Area	Soil Type		
✓ _____		✓ _____	_____		
2. Variety Planted					
Variety	Area Planted	Date of Planting	Estd Date of Harvest		
✓ _____	✓ _____	✓ _____	_____		
3. Type of Irrigation _____					
4. Average Yield _____ metric ton/ha.					
5. Cost of Production Inputs (CPI) (Please refer on the note below for CPI distribution)					
Days after Planting	MATERIALS		Labor		Total Cost
	ITEM	QUANTITY	COST	Work Force Quantity	
Land Preparation					
Seedlings Prep.					
Attached additional sheet if necessary					
6. Farm Information		Lot 1 _____ ha	Lot 2 _____ ha	Lot 3 _____ ha	
A. Farm Location/LSP					
Sitio					
Barangay ✓ _____					
Municipality ✓ _____					
Province ✓ _____					
B. Boundaries					
Adjacent Lot Owner/s- North ✓ _____					
Adjacent Lot Owner/s- South ✓ _____					
Adjacent Lot Owner/s- East ✓ _____					
Adjacent Lot Owner/s- West ✓ _____					
I confirm having completed the proposal form myself after reading it fully. All the statements made above and the answers given are wholly true and correct to the best of my knowledge and belief. I have disclosed all information and particular materials to the risks insured against. It is hereby understood and agreed that all the above information are the basis of your acceptance of coverage.					
✓ _____ Name and Signature of Supervising PT			✓ _____ Signature of Proposer		
Date _____			Date _____		

Figure 35. PCIC Proposal Form for Fully Subsidized Insurance Program⁸²

3.3.3. Processors

In essence, coffee farmers in both provinces are also primary coffee processors as all of them dry their harvest first before selling them, nobody sells ripe cherry beans anymore. Still other farmers, especially those from Sulu, are already becoming secondary processors at the same time as they now process their harvests further into GCB, roasted coffee beans and even ground coffee.

Secondary coffee processing in Basilan and Sulu is carried out either by farmers, individual entrepreneurs on sole proprietorship, and coffee farmer groups with access to resources and technologies.

Known coffee processors in Basilan are shown in Table 43. Aside from its medium roast Arabica (tropical tone that fuses and fruity flavors) and Robusta (pungent tone that combines strong and bitter flavors), EJN also takes pride of its House Blend as well as Arabusta medium roast whole and ground coffee. House Blend combines the earthy tones with mild and nutty flavors while the Arabica-Robusta (Arabusta) blended tone balances earthy and smooth flavors. EJN also offers pure selected Excelsa ground coffee under its Lacafe brand.

Jezreel, on the other hand, specializes solely in its ground coffee from pure selected Excelsa coffee beans under the

⁸² Source: Philippine Crop Insurance

same brand. Still roasting and processing ground Excelsa coffee is UWARBMPC under its Venado brand. The SCARBDC processes roasted coffee bean and ground coffee under the Cape Klara brand. While Mr. Cuyos under Joan's Native Coffee brand also used to process ground coffee.

It should be noted though that UWARBPMC has momentarily slowed down in their processing activities this year due to scarcity of beans supply within the province viz high demand. The processor of Joan's Native Coffee also suffered the same fate, leading to its non-operation for years now as it was not able to withstand the stiff competition against relatively bigger processors who captured the harvest of local farmers. The same operator though expressed his optimism to go back to business once local beans supply is already sufficient as his processing equipment is still intact.

Table 43. List of Secondary Coffee Processors in Basilan

BUSINESS NAME OF PROCESSORS	ADDRESS	PRODUCT FORM	BRAND
1. EJN Copra-Rubber-Coffee Trading	Brgy. Matatag, Lamitan City	Roasted coffee bean, Ground coffee (Arabica, Robusta, House blend, Arabusta)	Kalunkopi: The Basilan Brew; Lacafé Native Coffee (Excelsa)
2. Jezreel Basilan Coffee	Look, Lamitan City	Ground coffee (Excelsa)	Jezreel Basilan Café Native Coffee
Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative (SCARBDC)	Sta. Clara, Lamitan City	Roasted coffee bean, Ground coffee	Kape Clara
4. United Workers Agrarian Reform Beneficiaries Multi-Purpose Cooperative (UWARBMPC)	Menzi, Isabela City	Roasted coffee bean, Ground coffee	Venado Excelsa Coffee
5. Nestor Cuyos*	Townsite, Maluso	Ground coffee	Joan's Native Coffee

Source of basic data: KII

*Stopped operation due to scarcity of beans

All coffee farmers' cooperatives in Sulu are also coffee processors plus other private enterprises as shown in Table 44.

Table 44. List of Secondary Coffee Processors in Sulu

NAME OF PROCESSORS	ADDRESS	PRODUCT FORM	BRAND
Sulu Marketing Cooperative	Patikul	Ground Coffee	Kahawa Sug
2) Kankitap Consumers Cooperative (KCC)	Patikul	GCB, Roasted, Ground coffee	Qawha Sulu Coffee
3) Osaha Sin Anak Miskin Association (OSAMA)	Lahing-Lahing, Omar	Ground coffee	
4) Dennis Coffee Shop*	Scott Road, Jolo	Ground coffee, Brewed coffee	Dennis Coffee
5) Herman and Co.	Patikul	Ground coffee, civet	Kauman ⁸³ Sulu Coffee
6) Dayang Kumala	Kandayok, Panamao	Ground coffee	Royal Coffee
7) Lupahsug Coffee Processing Services	Indanan	Ground, Drip, Civet	Suluanos Kape: Kahawa Lupah Sug
8) Dalmatusa Cooperative	Indanan	Ground coffee	Subaanon
9) Kambalu Coffe Bar*	Kakuyagan Village, Jolo	Espresso coffee	Kambalu
10) Nanies Café*	Kasanyangan Village, Anuling, Patikul	Brewed and iced coffee	(Coffee shop)
11) People's Alliance for Progress Multipurpose Cooperative (PAP-MPC)	Panamao	GCB, Ground coffee	
12) Sulu Provincial Cooperative Union ⁸⁴	Jolo	GCB, Ground coffee	

⁸³ Taken from the Tausug term "kau man" which means community.

⁸⁴ The PLGU subsidized its processing operations.

13) Jadjeera Coffee Producers Cooperative	Bangkal, Patikul		
14) Kan along	Jolo	Ground coffee	
15) Cleopatra	Jolo	Ground coffee	
16) Tampak Agriculture Cooperative	Talipao	GCB, Roasted, Powdered coffee	
17) Dalmatuan Amiril Multi-purpose Cooperative	Indanan		

Source of basic data: PRDP Mindanao Coffee VCA, Klls

*Also operates a coffee shop

**Coffee shop

On top of being coffee processors, some of these business establishments also operate a coffee shop such that of Dennis. Meanwhile Nanies Café and Kambalu Coffee Bar operate as coffee shops serving brewed, iced and espresso coffee to their customers.

Aside from the above well-known coffee shops, there are actually numerous small coffee shops around the province locally termed as “kahawahan”. As previously mentioned in the early part of this report, coffee and coffee shops are integral of the Tausug culture as this is where old folks and professionals alike gather not to only to drink coffee but to hear from each other. Indeed, it is a venue where their social cohesion is formed and strengthened.



Figure 36. Some Popular Processed Coffee Products and Brands in Basilan



Figure 37. Some Popular Processed Coffee Products and Brands in Sulu

Source of Raw Materials and Volume Requirement

Processors, especially small processors, and cooperatives, who are also coffee farmer themselves or have coffee farmer members, source their raw materials such as the dried cherry beans from their own farms while the others source their raw materials from either nearby municipality within the province or from mainland provinces in Mindanao. As previously mentioned, the relatively low supply of coffee beans in Basilan caused a reduction in the processing operations of UWARBMPC and the halt of processing for Mr. Cuyos.

Table 45. Source of Processors' Raw Materials and Volume Requirement among Coffee Processors in Basilan

PROCESSOR	SOURCE AREA	VOLUME REQUIREMENT & FREQUENCY
1. EJN Copra-Rubber-Coffee Trading	Bukidnon, Lanao del Sur, Sulu (Robusta, Excelsa)	15,000 kg/ month
2. Jezreel Basilan Coffee	Cotabato	Depends on the order (undisclosed exact volume and frequency)
3. Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative (SCARBDC)	Members' own produce (within Lamitan City)	100-300 kg/ undisclosed frequency
4. United Workers Agrarian Reform Beneficiaries Multi-Purpose Cooperative (UWARBMPC)	Members' own produce (within Isabela City), Lantawan	100 kg/month (when coffee beans supply was still abundant)
5. Mr. Nestor Cuyos	Isabela City (Menzi)	Used to get 50-90 kg/ undisclosed frequency (when it was still operational)

Source of basic data: Klls

Table 46. Source of Processors' Raw Materials and Volume Requirement among Selected Coffee Processors in Sulu

PROCESSOR	SOURCE AREA	VOLUME REQUIREMENT & FREQUENCY
1. Nanies Café*	GCB: Kalingalan Caluang, KCC	8-15kg/twice a week
2. Dennis' Café*	GCB: Talipao, Panamao	800 kg/depending on availability
	Roasted: Talipao, Panamao	Undisclosed
	Ground coffee: Talipao, Panamao	20 kg/weekly
Lupah Sug Coffee Processing Services	GCB: Indanan, Talipao, Patikul as well as trusted local traders	Undisclosed volume /depending on availability
Kankitap Consumers Cooperative	Dried Cherry beans: Talipao, Omar, Panamao, K. Caluang	
Tampakan Agriculture Cooperative	Dried cherry: Tampakan, Talipao	80 kg / undisclosed frequency

Source of basic data: KII with processors

*Also operates own coffee shop

Constraints

Basilan-based processors are experiencing low supply of beans from within the province. Faced with this constraint, EJN and Jezreel would even procure their raw materials from other coffee producing provinces in Mindanao such as Bukidnon, Lanao del Sur, Cotabato and Sulu.

Next Level Buyers and Volume Requirement

Table 47. Next Level Buyers and Volume Sold among Coffee Processors in Basilan

PROCESSOR	MARKET	VOLUME SOLD & FREQUENCY
1. EJN Copra-Rubber-Coffee Trading	Roasted: Isabela City, Zamboanga City	Roasted: 20kg/order
	Ground (Robusta, Excelsa, Arabica): Lamitan City, Maluso	Ground: Undisclosed volume/ per order
2. Jezreel Basilan Coffee	Ground: Lamitan City, Isabela City, Al-Barka	Volume and frequency undisclosed
3. Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative (SCARBDC)	Roasted: Lamitan City, Isabela City, Cotabato, Palawan	Roasted: 100-200 kg/ variable frequency
	Ground: Lamitan City, Isabela City	Ground: 50-100 kg/ variable frequency

4. United Workers Agrarian Reform Beneficiaries Multi-Purpose Cooperative (UWARBMPC)	Roasted: Isabela City and other areas within Basilan Ground: Isabela City and other areas within Basilan, Zamboanga City	Roasted: 50-100kg/ daily Ground: 800-1,000 kg/daily (When it was still at the peak of processing)
5. Mr. Nestor Cuyos	Lamitan City, Isabela City	100 kg/ twice month ((When it was still operational)

Source of basic data: KILs

Table 48. Next Level Buyers and Volume Sold among Selected Coffee Processors in Sulu

PROCESSOR	MARKET	VOLUME SOLD & FREQUENCY
1. Nanies Café*	Local	Undisclosed volume/ daily
2. Dennis' Café*	Ground: Locals and tourists in Zamboanga City	15kg/daily
3. Lupah Sug Coffee Processing Services	Powdered: Cafes in Metro Manila and Visayas	5 kg/ weekly
4. Kankitap Consumers Cooperative	Roasted: Jolo (Nanies) Ground: Local, Davao, Cotabato City, Manila	~20 kg/day (for both roasted and ground)
5. Tampakan Agriculture Cooperative	Powdered: Talipao, Jolo	120 kg/ three times a year

Source of basic data: KIL with processors *Also operates own coffee shop

Quality and Other Requirements

Processors' Requirements from Suppliers

Secondary coffee processors in Basilan require that the beans they will buy as raw material for processing be well dried, clean (free from material impurities), without cracks and of good texture. Processors who are sourcing their beans from external sources, not from their own farm, ensure that they provide information to their respective suppliers of their quality and volume requirement ahead of time through phone calls, text or actual farm visits. The actual visit to farm sites has now become an increasing practice to ensure buying the need quality requirement as well in securing supply viz competition with other buyers.

Meanwhile, secondary coffee processors interviewed in Sulu disclosed that they require GCBs to be of premium quality, either Class A or Class B and, thus, should be ripe coffee berries only. Not all processors inform their suppliers of their quality and volume requirement. The one which provides information on his requirements does so via his trusted trader.

In addition to supply, purchasers of coffee are now raising their marketing awareness of the unique origin of the coffee otherwise known as the "single origin".

Table 49. Coffee Processors' Quality Requirement for Raw Materials in Basilan and Sulu

PRODUCT FORM	BASILAN	SULU
Dried Cherry Beans	Well dried, clean, without crack	-
GCB	Well-washed, no cracks, no spots, good texture	Premium (class A or B; equivalent to Grade 1 or 2) - from ripe coffee cherries only (via pick red harvesting method)
Roasted coffee beans	Medium roast (or as needed)	

Source of basic data: KILs with processors

Some processors are satisfied with the quality of products from their suppliers as it complies with the former's requirements plus the beans are properly stored.

Constraints

Some processors are dissatisfied with the quality of their sourced beans. One processor in Sulu even quipped that while he is not fully satisfied with the quality of his suppliers, he has no choice since they are his only suppliers.

Table 50. Reasons for Non-Satisfaction of Some Processors from Procured Beans

BASILAN	SULU
<ul style="list-style-type: none"> Local beans are not as clean viz previous purchase Local supplier can no longer met required volume 	<ul style="list-style-type: none"> - Not so good quality - Almost half are rejected

Source of basic data: KILs with processors

Next Level Buyers' Requirements

Table 51 indicates the next level buyers' requirements, referring to either institutional buyers and/or the final consumers. All the processors' products are accepted by their respective buyers.

Table 51. Next Level Buyers' Quality Requirement

PRODUCT FORM	BASILAN	SULU
Roasted coffee beans	Medium roast Good aroma and taste Clean Intact size/no cracking Right moisture content	No answer
Ground coffee	Right moisture content Good aroma and taste	No answer
Powdered coffee	Good aroma Good taste	Good taste

Source of basic data: KILs with processors

Percentage of Produce Sold

For coffee processors, they all sell 100% of their products except for Dennis's branch in Jolo which retains some of its processed products for its coffee shop's consumption.

Direct Employment from Coffee Processing

Coffee processing, including brewing, also provides direct employment to the hired staff. Table 52 shows the number of manpower complements hired by the processor key informants.

Table 52. Manpower Requirements of Selected Coffee Processors in Basilan and Sulu

BASILAN		SULU	
PROCESSOR	MANPOWER	PROCESSOR	MANPOWER
EJN	1 driver, 3 helpers	Nanies Café*	1 driver, 30 staff (in 2 branches)
UMARBMPC	1 driver, 5 helper, 2 classifiers	Dennis Café**	1 driver, 4 staff
Jezreel	1 driver, 2 helpers, 2 classifiers	Lupah Sug Coffee Processing Services	6 part-time staff (who also act as classifiers)
SCARBDC	1 driver, 2 helpers, 2 classifiers, 1 staff		
Mr. Nestor Cuyos	1 helper		

Source of basic data: KIL with coffee processors

*Operates as a coffee shop

**Aside from being a processor, also operates a coffee shop

Value Adding Services Provided by Processors

Interviews from processors from Basilan revealed that there are some big processors who provide financing for farmers, thus ensuring their supply of raw materials. The downside of this is that other small processors find it hard to source their raw materials.

Trainings Attended by Processors

All processors interviewed from Basilan were able to attend coffee processing related training provided by MAFAR,

MTIT and MOST such as GMP and Halal Certification for free. These processors declared that they all have adopted their learnings from the training. The owner of EJM cited that he is now applying the business model canvass (BMC) he learned and is also in the process of getting an FDA certification in addition to his existing halal certification.

Meanwhile, two of the processors interviewed from Sulu expressed that they haven't attended training related to coffee processing but banked on from their personal experience.

Use of Other Energy Form for Coffee Processing

All coffee processors in Basilan rely on conventional electricity from the grid for their processing needs.

Some processors in Sulu have tried using solar energy for their lights. One processor has a back-up generator on standby during power outages.

Awareness and Practice of Good Manufacturing Practice

Nonetheless, all the processors interviewed from both provinces are familiar with or at least have heard of the principles of GMP. One processor from Basilan really hired a consultant for this purpose while the rest either heard it from their processor friends or from the internet. For the Sulu-based processors, they learned it from either training, from experience from a long-time running coffee shop family business and from other processor friends too.

In terms of practicing GMP, half of the processor does full practice while the other half does partial practice. One processor from Basilan claimed to be GMP certified too. One is also in the process of applying for GMP certification. Still another processor from Sulu said that she is not aware of GMP certification. Another processor also requested that they still need more training related to GMP as well as other related training including packaging. Most of the Basilan-based processors are still in the partial application of GMP specifically on hygiene and sanitation, product packaging and labeling, traceability, product testing, quality control, equipment maintenance, and record keeping.

Halal Certification

Processed food products must be certified halal to be sold in the Halal market. Halal food is defined as being compliant with Shariah or Islamic law. It stipulates that food must be free of any haram or prohibited ingredients. The tools or equipment used during preparation, processing, or production cannot be contaminated with the haram ingredients too. Thus, a halal certification assures Islamic consumers that their religious precepts are upheld. Moreover, it denotes a high degree of product safety and hygienic standards.

A halal certification that is valid for one (1) year costs around Php 3,000 per product form. On top of the certification fee, surveillance audits are done quarterly, with the enterprise bearing all audit-related expenses (i.e., auditors' transportation, accommodation, food, per diem, among others). Some NGAs such as the DA and DTI provide subsidies for their project beneficiaries who would wish to be halal certified.

Among all processors interviewed, all processors in Basilan are familiar with halal certification and what it entails while one in Sulu answered no. Those in Basilan learned about it from government agencies like MOST and from other people. One processor in Sulu has been visited by a halal certifying body already.

In terms of application, not all those who are aware applied for the certification. One processor in Sulu expressed that he has apprehensions about the certification.

Among the coffee processed products in Basilan, EJM's Lacafe Native Coffee (grounded Excelsa) and Jezreel's Basilan Café Native Coffee (also grounded Excelsa) are halal certified by the Muslim Mindanao Halal Certification Board, Inc. (MMCHBI). Meanwhile, the Kankitap Consumers Cooperative's Qahwa coffee of Sulu is also halal certified by MMCHBI. The MMCHBI is based in Cotabato City (see Section 3.3.6).

UWARBMPC of Basilan also intends to apply but is currently faced with scarcity of beans citing that it cannot compete with other big processors. Nonetheless, UWARBMPC also expressed a high level of awareness on halal such as ensuring cleanliness and that no pork-related preservative should come in contact with their coffee products.

While the local consumers of coffee in both provinces are predominantly Muslim, there seems to be low discrimination among these local consumers regardless of if it is halal certified or not especially among non-meat products such a coffee.

Constraints

Not all processed coffee products in Basilan and Sulu are halal certified. Halal certifications have corresponding cost implications, both for the certification fee and audit-related expenses, which small processors can't afford.

Other Certifications

Apart from GMP and Halal, only EJN of Basilan has another certification specific to competency training for individuals. UWARBMPC is in the process of getting certified in organic. Basilan Quality Supply-Interco is more focused now on how to secure a reliable supply of beans. The SCARBDC, on the other hand, doesn't know of any other certification. All Basilan-based processors are willing to apply to be registered/accredited/certified with other necessary certifications and request that they be provided the necessary assistance technical and financial assistance in doing so. Some of the assistance mentioned are roasting competency, barista training for coffee shop employees and personnel.

For the Sulu-based processors interviewed, there was no other certification too. One coffee shop is of the view that they don't need such since their focus is on retailing brewed coffee on cups. Nonetheless, this same processor expressed his willingness to apply for any needed certification in the future. Still another processor In Sulu expressed fear on reputation.

Constraints

Small processors usually don't have access to modern processing facilities and lack technical know-how on good manufacturing practices. They also have limited access to capital, one of the major constraints in their operations and complying with standards and regulations including securing the necessary business permits and certifications. Even in terms of packaging and labelling, not all processors are able to be at par with the standards. Those who are simply targeting the locals within the province do not usually invest in attractive packaging.



Figure 38. Roasted coffee beans and traditional method of producing powdered coffee



Figure 39. Traditionally packed and unlabeled powdered coffee for sale in Jolo market



Figure 40. Traditionally packed and unlabeled ground/powdered coffee for sale in a store in Maluso, Basilan



Figure 41. A woman coffee farmer's attempt to processing (Tuyang, Talipao)

3.3.4. Traders

Generally, trading is performed by either local traders/consolidators or by groups such as cooperatives. Many processors also act as traders since they are also directly selling their processed products directly to their intended markets.

Known coffee processors in Basilan such as EJM and UWARBMPC are also acting as coffee traders. There is also the Basilan Quality Products – Interco and other individual traders such as Cuevas.

Table 53. List of Notable Coffee Traders in Basilan

TRADER	ADDRESS
1. Cuevas	Lamitan City
2. Basilan Quality Supply - Interco	Riverside, Isabela City
3. EJM Copra-Rubber-Coffee Trading	Brgy. Matatag, Lamitan City
4. UWARBMPC	Brgy. Menzi, Isabela City

Source of basic data: KILs

While there are numerous local traders in Sulu, among the notable ones are indicated in Table 54. Most coffee processors, cooperative and sole proprietorship alike, are also into coffee trading. Most of the traders are Jolo-based.

Table 54. List of Informant and Other Notable Coffee Traders/Consolidators in Sulu

TRADER/ CONSOLIDATOR	ADDRESS
1. Kankitap Consumers Cooperative (KCC)*	Patikul
2. Sulu Provincial Cooperative Union*	Jolo
3. People's Alliance for Progress Multipurpose Cooperative (PAP-MPC)*	Panamao
4. Lupah sug Coffee Processing Services*	Indananan
5. Dennis*	Jolo
6. Dayang Kumala	Panamao
7. Hadji Warid family	Jolo
8. Cleopatra	Jolo
9. Kan Along	Jolo
10. Mr. Arser Jumadil*	Jolo

Source of basic data: KIIs, OPAG Sulu, MAFAR Sulu **Also do coffee processing

Source of Raw Materials and Volume Requirement

Table 55. Source of Traders' Raw Materials and Volume Requirement among Coffee Traders in Basilan

PROCESSOR	SOURCE AREA	VOLUME REQUIREMENT & FREQUENCY
1. EJM Copra-Rubber-Coffee Trading	Dried cherry beans: Bukidnon, Lanao del Sur	15,000 kg/ month
2. UWARBPMC	Isabela City (members), Lantawan	Slowed down due to low local bean supply
3. Basilan Quality Product – Intero	Dried cherry beans: Cotabato	Variable volume/4x a year

Source of basic data: KIIs with traders

Table 56. Source of Traders Informants' Raw Materials and Volume Requirement among Coffee Traders in Sulu

PROCESSOR	SOURCE AREA	VOLUME REQUIREMENT & FREQUENCY
1. Lupah Sug Coffee Processing Services	GCB: Indanan, Talipao, Patikul as well as trusted local traders	Undisclosed volume /depending on availability
2. Dennis' Café*	GCB: Talipao, Panamao	800 kg/depending on availability
	Roasted: Talipao, Panamao	Undisclosed
	Ground coffee: Talipao, Panamao	20 kg/weekly
3. Mr. Arser Jumadil	RCB/Dried Cherries: Local farmers within Sulo	300 kg/4x a month

Source of basic data: KIIs with traders *Also a processor and operates a coffee shop

Next Level Buyers and Volume Requirement

Table 57. Next Level Buyers and Volume Sold among Informant Coffee Traders in Basilan

PROCESSOR	SOURCE AREA	VOLUME REQUIREMENT & FREQUENCY
1. EJM Copra-Rubber-Coffee Trading	Roasted: Isabela City, Zamboanga City	Roasted: 20kg/order
	Ground (Robusta, Excelsa, Arabica): Lamitan City, Maluso	Ground: Undisclosed volume/ per order

2. United Workers Agrarian Reform Beneficiaries Multi-Purpose Cooperative (UWARBMPC)	Roasted: Isabela City, Maluso, Lamitan City Ground: Isabela City and other areas within Basilan, Zamboanga City	Roasted: 50-100kg/ daily Ground: 800kg/daily (When it was still at the peak of processing)
3. Basilan Quality Product – Interco	Maluso, Lamitan City, Isabela City	Undisclosed

Source of basic data: KILs with traders

Table 58. Next Level Buyers and Volume Sold among Informant Coffee Traders in Sulu

PROCESSOR	MARKET	VOLUME SOLD & FREQUENCY
1. Lupah Sug Coffee Processing Services	Powdered: Cafes in Metro Manila and Visayas	5 kg/ weekly
2. Dennis' Café*	Ground: Locals and tourists in Zamboanga City	15kg/daily
3. Mr. Arser Jumadil	Powdered: Pangaturan and Siasi	80 kgs/ 2-3x a month

Source of basic data: KILs with traders

Quality and Other Requirements

Traders' Requirements from Suppliers

Coffee traders in Basilan provide information on their volume and quality requirements by informing their respective suppliers ahead of time via phone calls. EJN, which gets its coffee beans raw materials from mainland Mindanao provinces even require suppliers to send samples before an actual order is made and shipped. UWARBMPC is looking forward to communicating its volume and quality requirement once it starts procuring from non-member farmers.

Table 59. Coffee Traders' Quality Requirements for Raw Materials in Basilan and Sulu

PRODUCT FORM	BASILAN	SULU
Dried Cherry Beans	Good appearance, beans are whole (not broken), clean, pulp is well dried, moisture content,	Good appearance, moisture content
GCB	Whole beans	Good appearance, moisture content

Source of basic data: KILs with traders

Traders like ENJ and Interco expressed their satisfaction with the quality of their procured beans from their suppliers.

Next Level Buyers' Requirements

Table 60 indicates the next level buyers' requirements among traders, referring to either institutional buyers and/or the final consumers. Consumers of ground and powdered coffee are looking into aroma, taste, flavor and cleanliness, and packaging of the product.

Table 60. Next Level Buyers' Quality Requirement

PRODUCT FORM	BASILAN	SULU
Ground coffee	Strong aroma Good taste Flavor Good packaging Clean	Good taste Clean
Powdered coffee	Good taste	Good taste

Source of basic data: KILs with processors

Direct Employment Generated from Coffee Trading

Table 61. Manpower Requirements of Selected Coffee Traders in Basilan and Sulu

BASILAN		SULU	
PROCESSOR	MANPOWER	PROCESSOR	MANPOWER

EJN	1 driver, 3 helpers		
UMARBMPC	1 driver, 3 helpers, 2 classifiers		
Basilan Quality Products - Interco	1 driver, 2 helpers, 2 classifiers		

3.3.5. Cooperatives and Associations

One of the objectives of the Republic Act 8436 (Agriculture and Fisheries Modernization Act or AFMA of 1997) is:

“To encourage horizontal and vertical integration, consolidation and expansion of agriculture and fisheries activities, groups, functions and other services through the organization of cooperatives, farmers’ and fisherfolk’s associations, corporations, nucleus estates, and consolidated farms and to enable these entities to benefit from economies of scale, afford them a stronger negotiating position, pursue more focused, efficient and appropriate research and development efforts and enable them to hire professional managers”⁸⁵

These strengthened clusters are aimed to help local value chains develop, which will, in turn, result in a dynamic and progressive agri-fishery economy. It is finally hoped that this will lead to financial independence and improved well-being of small fishers and farmers⁸⁶. It is along this line that the government distributes interventions for farmers and fishers through associations and cooperatives for efficiency and wide reach to beneficiaries. Meanwhile, the other goal is to graduate associations into cooperatives as the latter have the legal entity to engage in business. For associations to shift into cooperative status they need to get registered with the Cooperative Development Authority (CDA) with a minimum of at least 15 members⁸⁷. Associations, on other hand, could be registered with the Department of Labor and Employment (DOLE) or the Ministry of Labor and Employment (MOLE), Department of Social Welfare and Development (DSWD) or the Ministry of Social Welfare and Development (MSWD), among others.

While most organized farmer-fisher cooperatives are generally into agri-fishery activities as indicated in their registration documents, several of their members are coffee farmers and/or processors too as corroborated by the results of the KIs. Not all coffee farmers though are association/cooperative members.⁸⁸

For the BARMM jurisdiction of Basilan, a total of five (5) agri-fishery and agrarian cooperatives with coffee farmer members comprising about 13% of total membership are noted as shown in Table 62. This is equivalent to at least 365 coffee farmers in Basilan who are affiliated with cooperatives. Two of these cooperatives have been organized and registered for about three decades already such as TARBIDC in Sumisip and the Lamitan Agrarian Reform Beneficiaries Cooperative (LARBECO) in Lamitan City. Another two have existed during the last decade or two. While the TARBMC of Lantawan was just registered as a cooperative last year, it already existed as an organization as early as 1998. A greater majority of the farmer members are into coconut and rubber farming.

Table 62. List of Informant Cooperatives in Basilan* with Coffee Farmer Members, as of November 2023

COOPERATIVE NAME	ADDRESS	YEAR REGISTERED	TOTAL NO. OF MEMBERS	NO. OF MEMBERS INVOLVED IN COFFEE
1) Lamitan Agrarian Reform Beneficiaries Cooperative (LARBECO)	Lamitan City	1994 - CDA	375	204 (54%)
2) Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative (SCARBDC)	Sta Clara, Lamitan City	2010 – CDA	1,339	68 (5%)
3) Mahatallang Agrarian Reform Beneficiaries Multi-Purpose Cooperative (MARBECO)	Brgy. Mangal, Sumisip	2000 – CDA	245	45 (18%)

⁸⁵ Source: Section 3.d of RA 8436

⁸⁶ It is along this line that the DA implemented a Farm and Fisheries Clustering and Consolidation (F2C2) Program with DA Memorandum Circular No. 21 series of 2022 providing the supplemental guidelines of its implementation

⁸⁷ Based on the CDA approved guidelines for registration of new cooperatives signed on 17 March 1992.

⁸⁸ There is no available data though that estimates the percentage of coffee farmers that are not association or cooperative member

4) Tumahubong Agrarian Reform Beneficiaries Integrated Development Cooperative (TARBIDC)	Brgy. Tumahubong, Sumisip	1990 – CDA	316	35 (11%)
5) Tairan Agrarian Reform Beneficiaries Multi-Purpose Cooperative (TARBMC)	Brgy. Tairan, Lantawan	Organized in 1998, registered in 2022 - CDA	478	13 (3%)
Total			2,753	365 (13%)

Source of basic data: Klls

*Under BARMM's jurisdiction only, excluding Isabela City

Outside of BARMM's jurisdiction, there are also cooperatives in Isabela City such as the UWARBMPC.

Meanwhile, a huge discrepancy is seen in the estimates of the total number of agri-fishery associations and/or cooperatives with coffee players in Sulu provided by OPAG Sulu and MAFAR Sulu viz that of the data in the Sulu PCIP and PRDP Mindanao Coffee VCA (Table 63). The provincial average stood at 70 while based on per municipality data from the respective MMOs and OMAS of four municipalities, a total of 24 were reported with Talipao having the greatest number of coffee groups. Nonetheless, all these government data sources agreed that an average of 25 members composed each group. Data from cooperative informants in Table 64 indicates that other cooperatives have members even higher than 25.

Table 63. Data Estimates on Number of Associations and Cooperatives in Sulu with Coffee Farmer/Processor Members, as of September 2023

DATA SOURCE	APPROXIMATE NUMBER OF GROUPS/COOPERATIVES	
	TOTAL NUMBER OF GROUPS	NUMBER OF MEMBERS/ GROUP
PROVINCE-WIDE		
OPAG-SULU	20	25-30
MAFAR-SULU	246	25
PCIP Sulu	8	No data
PDRP Mindanao	7	No data
Average	70	25-30
MUNICIPAL-LEVEL		
Talipao	12	25
Indanan	5	25
Patikul	5	25
Maimbung	2	25

Source: OPAG-Sulu, MAFAR-Sulu, PCIP Sulu, OMAS of Talipao and Indanan, MMO of Maimbung and Patiku, PRDP Mindanao Coffee VCA

OPAG-Sulu's data implies that around only 16%-24% of coffee farmers in the province are members of cooperatives and/or associations while MAFAR-Sulu's data implies that all coffee farmers are associated with cooperatives and/or associations. Meanwhile, the total number of coffee farmers from six cooperatives and associations interviewed stood at 189. They constitute about 67% of total coop farmer members. While the total membership of cooperatives and associations in Sulu is relatively smaller than their counterpart farmers in Basilan which goes to the hundreds, the composition of coffee farmers to total coop membership is bigger in Sulu compared to Basilan's 13% only.

Table 64. List of Informant Agri-fishery Cooperatives/Associations in Sulu with Coffee Farmer Members, as of November 2023

NAME OF GROUP	ADDRESS	YEAR REGISTERED	TOTAL NO. OF MEMBERS	NO. OF MEMBERS INVOLVED IN COFFEE
1) Kankitap Consumers Cooperative (KCC)	KCC Center, Crossing Dan Puti, Brgy. Latih, Patikul	2011 -CDA	75	50 (67%)
2) Alhidaya Farmers Kababaihan Agricultural Cooperative	Buhanginan and Darayan, Patikul	2023 – CDA	25	25 (100%)

3) Andihi Agri-Marine Cooperative	Km 4. Tagbak , Indanan	2014 – CDA	51	45 (88%)
4) Hidayat MNLF Agri-Fishery Producers Cooperative	Matatal, Maimbung	2015 – CDA	28	19 (68%)
5) Osaha Sin Anak Miskin Association (OSAMA)	Lahing-Lahing, Omar	2015 – DOLE/ MOLE	35t	20 (57%)
6) Tampak Agriculture Cooperative	Tampak, Talipao	2015 – MOLE/CIN	70	30 (50%)
Total			284	189 (67%)

Source of basic data: KIIs

Table 65. List of Non-Informant Agri-fishery Cooperatives in Sulu with Coffee Farmer Members, as of November 2023

NAME OF GROUP	ADDRESS
1) Sulu Marketing Cooperative	Patikul
2) Jadgeera Coffee Producers Cooperative	Bangkal, Patikul
3) Tumangas Multi-Purpose Cooperative	Parang
4) Bud Tumantangis Kababaihan Agriculture Cooperative	Indanan
5) Dalmatuan Amiril Multi-Purpose Cooperative	Indanan
6) People's Alliance for Progress Cooperative	Panamao
7) Tumangas Multi-Purpose Cooperative	Talipao

Source of basic data: PRDP Mindanao Coffee VCA, KIIs

While there are other coffee farmers in the other municipalities of Sulu, they are not as organized yet.

Nonetheless, as prospects for coffee are good in both provinces, more farmers and other coffee VC players are in the process of forming coffee organizations and cooperatives to undertake coffee farming and processing activities.

Associations/Cooperatives as VC Actor and Enabler

Taken as a collective entity separate from the individual farmers, processors and traders, the agri-fishery associations and cooperatives in Basilan and Sulu act as both VC actors and enablers at the same time. Associations and cooperatives mostly operate as integrators. Integrators perform several functions in the VC - as coffee farmers, coffee processors and traders at the same time.

Shown in Table 66 are the coffee-related undertakings of the associations and cooperatives interviewed in both provinces. What is noticeable from this profiling is that most coffee trees in Basilan are indeed intercropped with vast coconut trees. Also, while the cooperatives in Basilan paid for the necessary labor and other expenses for the coffee farms, cooperatives in Sulu had this done by either the farmers themselves or their family and relatives. This indicates that coffee farming in Sulu is more of a family undertaking. In terms of income, cooperatives with bigger areas in Basilan also earn more than those with relatively smaller areas.

While some cooperatives engage into the forward linkages of the chain such as coffee processing and trading some are still quite stuck in just farming and drying.

For cooperatives in Sulu, some are notably already in their advanced stages of organizational development and business operations such as that of the KCC. It has already multiple lines of business, has an established brand with halal certification and has received recognition for its premium Robusta. Meanwhile, there are also those which are just newly organized such as the Alhidaya and understandably are still in their infancy stage. Andihi's and Hidayat's operations, for instance, are still limited to coffee farming and will start their first harvest sometimes in two-three years' time. In fact, these considerably young coops openly expressed their intent to learn via coffee farm benchmarking activities along with their request that they be also given corresponding trainings and access to their most needed farm implements especially in view of their anticipated harvest.

Table 66. Coffee-Related Undertakings of the Interviewed Associations and Cooperatives in Basilan and Sulu

NAME OF COOP	ADDRESS	LINE OF BUSINESS	AREA PLANTED WITH COFFEE (ha)	COFFEE VARIETIES PLANTED	CROPPING SYSTEM	WHO SPENDS FOR LABOR AND INPUTS & HOW MUCH	VOLUME OF HARVEST/ MONTH (kg of dried cherry beans)	BUYERS	PRODUCT BRAND	COFFEE FARMING, DRYING, & PROCESSING INCOME/ MONTH (PHP)
BASILAN										
1. Tairan Agrarian Reform Beneficiaries Multi-Purpose Cooperative (TARBMC)	Tairan, Lantawan	<ul style="list-style-type: none"> Coffee farming Coffee Drying Coconut 	1,478	Arabica Excelsa Liberica Robusta	Intercrop with coconut	Cooperative @ P200/day	600	Interco (Basilan)	TARBMC Coffee product	70,000-90,000
2. Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative (SCARBDC)	Sta. Clara, Lamitan City, Basilan	Coffee farming Coffee Drying Coffee Trading Coconut	100 (out of the 4,100 total farm hectareage)	Excelsa Robusta	Intercrop with coconut	Cooperative @ P200/day	1,500	Local buyers in Lamitan, Isabela; Cotabato, Pagadian	Kope Clara	Undisclosed
3. Mahatallang Agrarian Reform Beneficiaries Multi-Purpose Cooperative (MARBECO)	Manggali, Sumisip	Coffee farming Coffee drying	100	Undeclared	Intercrop with coconut	Cooperative	100-200	EJN and Interco of Basilan; Nestle	Our brand has no name since we only sell dried cherry beans w/ pulp	30,000-50,000
4. Tumahubong Agrarian Reform Beneficiaries Integrated Development Cooperative (TARBIDC)	Tumahubong, Sumisip	Coffee trading (buy and sell) Note: Coffee farming stop due to disease and coffee trees not bearing fruit plus the cocolisap micro lending	218	Excelsa Liberica Robusta	Intercrop with coconut	Cooperative	Used to produce 100-200 Kgs. (based on 2000's production); coffee trees for rehab now	Stopped production but are growing new coffee trees	None	20,000-50,000

5. Lamitan Agrarian Reform Beneficiaries Cooperative (LARBECO)	Larbeco, Lamitan	Coffee drying	500 (intercropping coconut), equivalent to almost 10 hectares	Robusta	Intercrop with coconut	Cooperative	Used to produce 1.6 tons dried cherry beans in the 2000s but no production at present as their coffee trees stop bearing fruits	Used to sell to EJN, Interco and Nestle	We don't have packaging/product name yet	8,000
SULU										
6. Kankitap Consumers Coop	Latih, patikul, Sulu	Coffee farming, Coffee Drying, Coffee processing (GCB, Roasted, Ground), Coffee trading, Lending, Buy and sell	~50 (1 ha per coffee farmer)	Robusta	Intercrop with abaca, coconut, durian, lanzones, mangosteen	The farmers	720	Locals in Sulu, Zamboanga City, Cotabato, Davao City, Manila	Qahwa Sug (Halal Certified)	~278,800*
7. Aldihaya Farmers Kababaihan Agricultural Coop	Brgy. Buhanginan/ Darayan, Patikul, sulu	Coffee farming	Estimated 100 coffees planted in farm	Arabica	Intercrop with lanut	Family and relatives	Haven't harvested yet	N/A	None yet	Estimate at 3,000 (traditional)
8. Andihi Agri-marine Coop	Km 4. Tagbak , Indanan Sulu	Coffee Farming	1 (for Km-4 farmers); 2 (for Kagay Indanan farmers)	Arabica	Intercrop with banana	Family and relative farmers	Haven't harvested yet	N/A	None yet	N/A
9. Hidayat MNLF Agri-fishery Producers Coop	Matatal, Maimbug, Sulu	Coffee Farming	5	Robusta						
10. Osaha Sin Anak Miskin Association (OSAMA)	Lahing-Lahing, Omar	Coffee farming, Coffee Drying, Coffee processing Coffee trading	15	Arabica, Excelsa, Robusta	Intercrop	Members	500	Dennis Coffee Shop in Jolo	None	~15,000-28,500*
11. Tampak Agriculture Cooperative	Tampak, Talipao	Coffee farming, drying, processing and trading	~100	Excelsa, Robusta	Intercrop	Cooperative (300/day)	100	Locals in Talipao, byers in Jolo	None	~5,000

Source of basic data: KIIs with cooperatives and associations *Computed based on data provided on volume sold to next buyers and selling price per product form

For instance, the KCC in Sulu also provides technical assistance, common shared facilities (CSF) even including farm implements, and advisory services to coffee farmer members on the right production, postharvest and processing techniques. Others likewise offer financial services to its members in the form of cash and goods to help farmer members sustain their basic needs while waiting for the harvest season. For instance, members of the KCC in Sulu can avail up of financial loans up to 75% of their capital build-up at 2% interest per month.

From here, an insight could be drawn such that the more advanced and mature cooperative such as the KCC can indeed very well act as big brother and learning site to the relatively young coops and associations.

In terms of coordinating platform for coffee players in the province, Sulu has the FSCPC which was organized in 2020 through the assistance of the MTIT. Currently headed by the Chairperson of Kankitap Consumers Cooperative, the FSCPC acts as the coordinating platform for coffee players in the province. Its aim is to increase volume and enhance the quality of coffee beans/products in Sulu.

Likewise, the Basilan Coffee Industry Cluster Council (BCICC) was organized through the assistance of the MTIT as well in Marh 2023. The BCICC is currently headed by the Basilan Provincial Governor.

Constraints

Agri-fishery cooperatives vary in terms of organizational maturity – some are already well established (e.g., KCC) while the others are still in their infancy stage (e.g., Alhidaya). Thus, they also have differing needs, both technical and financial. Cooperatives which are already relatively mature can act as big brothers to the relatively new and young ones.

3.3.6. Halal Certifiers

The National Commission on Muslim Filipinos⁸⁹ (NCFM)'s website⁹⁰ listed the Basilan Ulama Supreme Council Foundation (BUSC), Inc. as one of the National Commission of Muslim Filipinos (NCFM) - accredited halal certifying bodies (HCBs) in the BARMM⁹¹ It is likewise accredited by the Philippine Accreditation Bureau (PAB)⁹². The presence of this HCB in Basilan could provide a good opportunity for processors in the province to get accredited as audit expenses would be relatively lower compared to HCBs outside the province. Sulu has no HCB to date. Table 67 shows the list of HCBs based in Mindanao.

Table 67. Halal Certifying Bodies in Mindanao

NAME OF CERTIFYING BODY	ADDRESS	LOGO
1. Basilan Ulama Supreme Council Foundation Inc. (BUSC)	Mubarakat, Aguada, Isabela City, Basilan Province	
2. Philippine Ligwasan Marsh Conservation and Socio-Economic Development, Inc. (Phil-COSED, Inc.)	Poblacion, Buluan, Maguindanao	
3. Ulama Council of Zamboanga Peninsula (UCZP)	Moro Islamic Institute, Sta. Barbara, Zamboanga City	
4. Mindanao Halal Authority (MinHA)	Building 2, Unit 26, Yusepeng Compound, Yusepeng Building, National Highway General Santos City	
On-going Processing of Accreditation with NCFM		

⁸⁹ Formerly the Office of Muslim Affairs (OMA).

⁹⁰ Source:

⁹¹ The NCFM is mandated to accredit HCBs by virtue of Republic Act (RA) 9997 of 2010.

⁹² The PAB is an attached agency to the DTI and is in-charged of the accreditation of HCBs, inspection bodies and testing and calibration laboratories. By virtue of Section 9 of RA 10817 empowers the PAB to: (a) formulate accreditation policies and guidelines which shall govern the accreditation of HCBs; and, (b) grant or deny accreditation of HCBs and suspend or withdraw such accreditation in accordance with established policies and guidelines.



Source of basic data: NCMF

Summarized in Figures 42-43 and 44-45 are the coffee industry structure with approximate number of players in each VC segment as well as the geographic distribution of coffee VC players in the provinces of Basilan and Sulu, respectively.



Figure 42. Coffee Industry Structure in Basilan

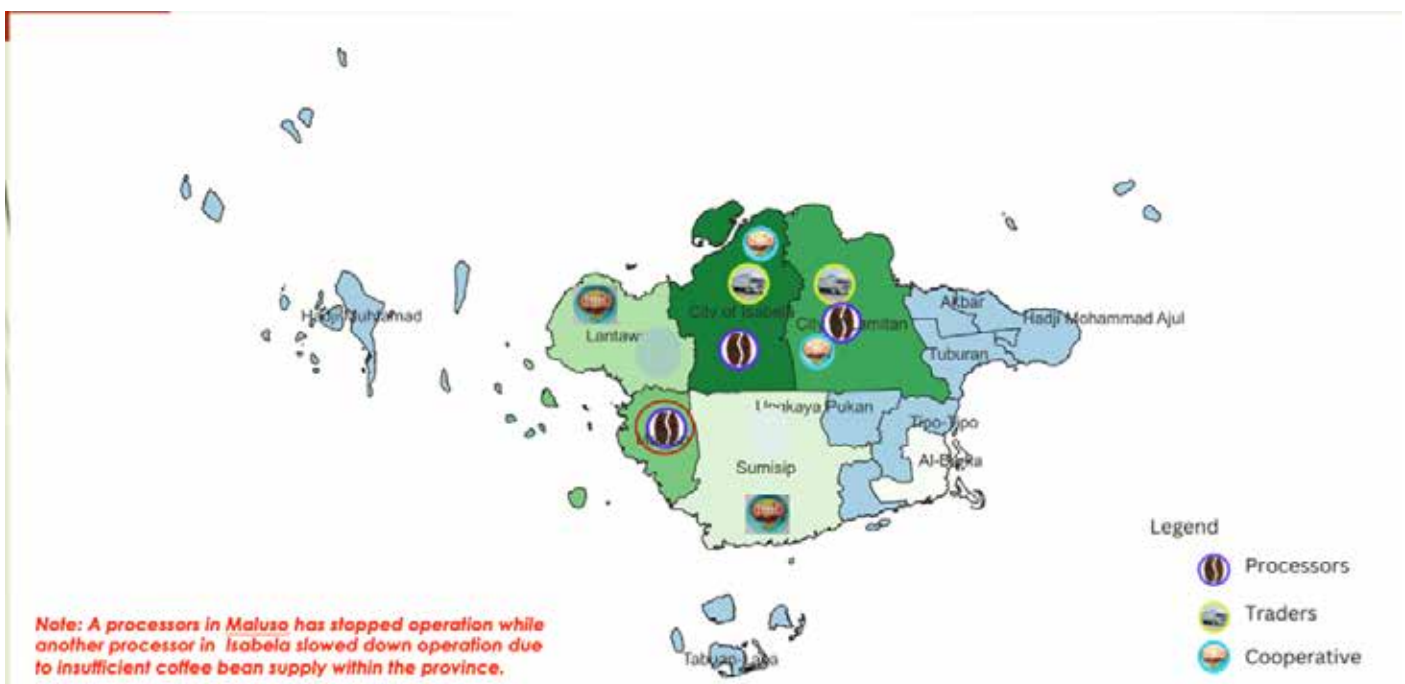


Figure 43. Commodity Map for Coffee in Basilan



Figure 44. Coffee Industry Structure in Sulu

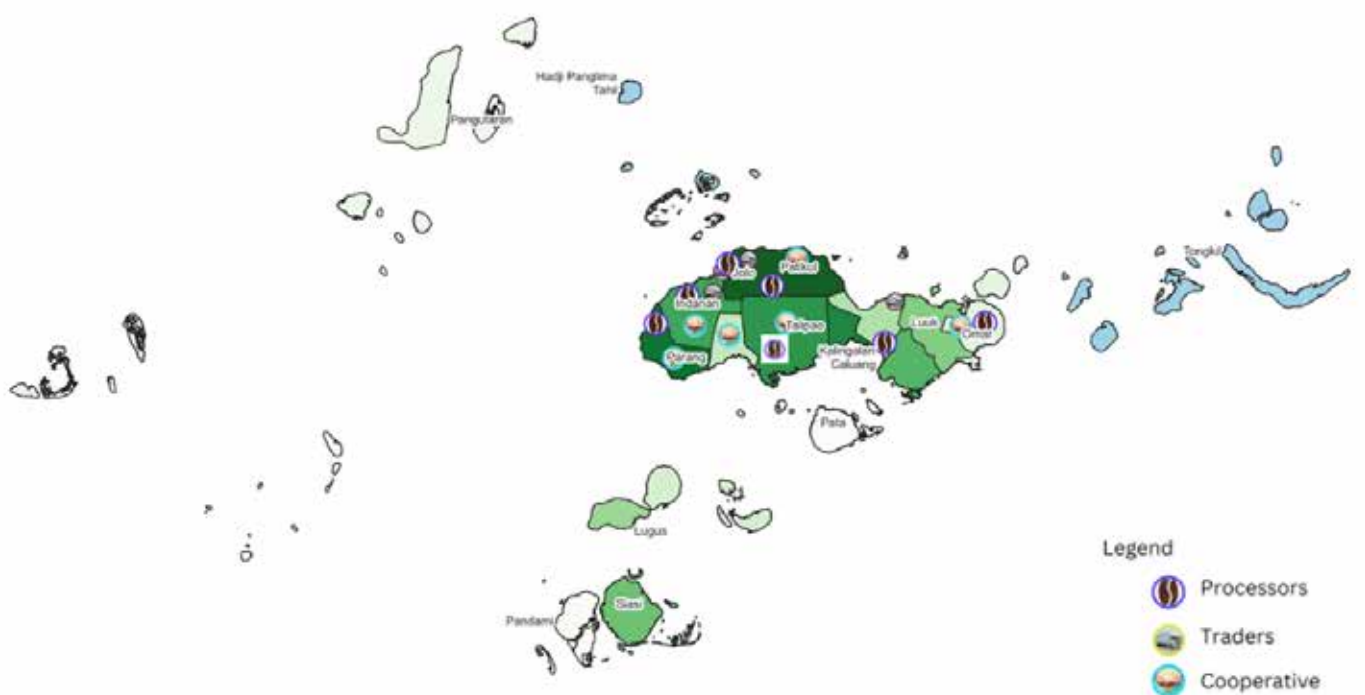


Figure 45. Commodity Map for Coffee in Sulu

3.4. Role of Marginalized Sectors

This section highlights the roles of as well as the constraints faced by the marginalized sectors including IPs or ethnic groups, women, youth and PWDs in the coffee industry.

Role of IPs/Ethnic Groups

Historically, the original ethnic/native inhabitants of the BASULTA area are the Yakan of Basilan, the Tausugs of Sulu, and the Samas of Tawi-Tawi. Over time, however, these ethnic groups also migrated to neighboring island provinces in the Sulu archipelago. It should be noted that the inhabitants of BASULTA prefer to be called ethnic groups rather than indigenous peoples.

The Tausug of Sulu comprised 99% of the provincial population. Even the key informants in Sulu are all Tausug. The Badjao comprised the minority group in Sulu.

Basilan, on the other hand, has a more varied ethnic group composition with many Bisaya already settling in the province. Those considered as IPs are the Badjaos and Yakan.

Table 68. Ethnolinguistic Features of Basilan and Sulu Provinces

FEATURE	BASILAN	SULU
Ethnic Groups	Yakan, Tausug, Sama (including the Sama-Badjaos), Bisaya, Chavacano/Zamboangenos	Tausug, Badjao, Sama including the Sama-Badjaos)
Language	Yakan, Tausug, Sama, Chavacano	Tausug, Sama
Religion	65% Muslim 99% Muslim	35% Christians, etc. 1% Christians, etc.

Source of basic data: Ethnic Group Maps

The ethnic groups in BARMM live in either the forested or mountainous areas as well as in the lowlands and coastal areas with varying levels of socio-economic development. They engage in different livelihoods such as but not limited to farming, livestock raising, fishing, and local handicrafts production and trade. The IP communities own and manage their ancestral domains which naturally have vast farmlands. Coffee is historically a staple crop in IP-based areas.

Indigenous peoples have been preserving the environment for years by cultivating coffee in a primitive, natural habitat beneath the protection of trees. They have practiced organic farming, safeguarded local drinking water supplies and streams, minimized soil erosion, and used integrated pest management and biological control techniques to lessen pests⁹³. The tribes are without a doubt the first caretakers of the forest.

Excluding TARBIDC which did not provide data on IP membership of its cooperative, about 28% of the 365-coffee farmer cooperative members are IPs. Sulu cooperatives did not provide specific data on their IP memberships, but it is safe to assume that about 99% of the Sulu coffee farmers belong to the Tausug ethnic group as evident in all the farmers, processors and traders interviewed in the province. They are not to be considered as minorities as they as the dominant ethnic group in the province. Nonetheless, two farmers interviewed from the municipalities of Kalingalan Caluang and Omar mentioned that the Badjaos are also doing farm labor.

Table 69. Ethnic/IP Membership in Respondent Agri-Fishery and Agrarian Cooperatives and Associations with Coffee Farmer Members, as of November 2023

COFFEE ASSOCIATION / COOPERATIVE	LOCATION	TOTAL NUMBER OF COFFEE FARMER MEMBERS	NUMBER OF IP MEMBERS
BASILAN			
1. LARBECO	Lamitan City	204	20 (10%)
2. SCARBDC	Lamitan City	68	45 (66%)
3. MARBECO	Manggal, Sumisip	45	29 (64%)
4. TARBIDC	Tumahubong, Sumisip	35	n.d.
5. TARBMC	Tairan, Lantawan	13	10 (77%)
Total	365	104 (28%)	
SULU			
1. Kankitap Consumers Cooperative	Latih, Patikul	50	n.d.

93 Chavez (2012)

2. Hidayat MNLF Agri-Fishery Producers Cooperative	Maimbung	19	n.d.
3. Alhidaya Farmers Kababaihan Cooperative	Buhanginan and Darayan, Patikul	25	n.d.
4. Andihi Agri-Fisheries	Malimbay, Indanan	45	n.d.
5. Osaha Sin Anak Miskin Association (OSAMA)	Lahing-Lahing, Omar	20	n.d.
Total		159	n.d.

Source of basic data: Klls with cooperatives and associations n.d. = no data

In terms of their role played by the ethnic groups in the coffee industry, they are involved in all segments of the coffee VC except for the marketing component.

Table 70. Roles Played by IPs/Ethnic Groups in the Coffee Industry in Basilan and Sulu

BASILAN	SULU
<ul style="list-style-type: none"> Planting Harvesting/ Picking Sorting Drying Packaging 	<ul style="list-style-type: none"> Farm labor (Badjao) Harvesting Sorting Drying Processing

Source of basic data: Klls with coffee farmers, traders, processors, and cooperatives and associations

Role of Women

In nominal terms and based on data gathered from the respondent agri-fishery and agrarian reform cooperatives with coffee farmer members, more women in Basilan are involved in coffee farming – 118 women in Sulu viz Sulu's 98 women. Representation wise in an organization, however, more women members in Sulu are involved in coffee undertakings with 62% viz Basilan's 32%.

Table 71. Women Membership in Respondent Agri-Fishery and Agrarian Cooperatives with Coffee Farmer Members, as of November 2023

COFEE ASSOCIATION / COOPERATIVE	LOCATION	TOTAL NUMBER OF COFEE FARMER MEMBERS	NUMBER OF WOMEN MEMBERS
BASILAN			
1. LARBECO	Lamitan City	204	38 (19%)
2. SCARBDC	Lamitan City	68	35 (51%)
3. MARBECO	Manggal, Sumisip	45	25 (56%)
4. TARBIDC	Tumahubong, Sumisip	35	20 (57%)
5. TARBMC	Tairan, Lantawan	13	n.d.
Total		365	118 (32%)
SULU			
1. Kankitap Consumers Cooperative	Latih, Patikul	50	33 (66%)
2. Alhidaya Farmers Kababaihan Cooperative	Buhanginan and Darayan, Patikul	25	10 (40%)
3. Andihi Agri-Fisheries	Malimbay, Indanan	45	39 (87%)
4. Hidayat MNLF Agri-Fishery Producers Cooperative	Maimbung	19	1(5%)
5. Osaha Sin Anak Miskin Association (OSAMA)	Lahing-Lahing, Omar	20	15 (75%)
Total		159	98 (62%)

Source of basic data: Kll with cooperatives and associations n.d. = no data

While there is a preconception that Muslim communities are patriarchal in nature⁹⁴, in the case of Sulu, some officers of its coffee farmer groups are women. KCC, for one, has a woman in its Board of Directors.

Table 72. Roles Played by Women in the Coffee Industry in Basilan and Sulu

BASILAN	SULU
<ul style="list-style-type: none"> Planting Harvesting/ Picking Drying Sorting Packaging Marketing 	<ul style="list-style-type: none"> Planting Harvesting Sorting Coffee shops staff (82% of Nanies Cafe, 90% of Dennis Cafe)

Source of basic data: KIs with coffee farmers, traders, processors, and cooperatives and associations

The role of women in the coffee industry in both provinces as shown in Table _ are also consistent with the role of women in the coffee industry as highlighted in the PRDP Mindanao Coffee VCA. While men usually do the hard labor like land preparation, planting and applying fertilizers, women play a significant role in coffee farming too. Women influence decision-making, financing, equipment procurement, packaging, and marketing. They attend trainings and share knowledge, influencing decisions and influencing the hard work of men in the field. Women play a crucial role in the forward linkages/segments of the coffee VC too. They are primarily involved in harvesting, especially in handpicking, sorting, roasting, packaging, and marketing activities, often due to their honesty, aesthetic skills and attention to detail .

Role of the Youth

It has been a common backdrop that children of Filipino farmers are leaving farming as a profession in favor of more lucrative jobs in the cities like working in call centers, doing housework, and other city-based occupations.

Based on data gathered from coffee cooperatives and associations in Basilan and Sulu, the youth comprised a quarter of their total coffee farmer members. This shows the increasing participation and involvement of the youth in the coffee industry in both provinces.

Table 73. Youth Membership in Respondent Agri-Fishery and Agrarian Cooperatives with Coffee Farmer Members, as of November 2023

COFFEE ASSOCIATION / COOPERATIVE	LOCATION	TOTAL NUMBER OF COFFEE FARMER MEMBERS	NUMBER OF WOMEN MEMBERS
BASILAN			
1. LARBECO	Lamitan City	204	30 (15%)
2. SCARBDC	Lamitan City	68	27 (40%)
3. MARBECO	Manggal, Sumisip	45	24 (53%)
4. TARBIDC	Tumahubong, Sumisip	35	10 (29%)
5. TARBMC	Tairan, Lantawan	n.d.	n.d.
Total		365	91 (25%)
SULU			
1. Kankitap Consumers Cooperative	Latih, Patikul	50	13 (26%)
2. Alhidaya Farmers Kababaihan Cooperative	Buhanginan and Darayan, Patikul	25	5 (20%)
3. Andihi Agri-Fisheries	Malimbay, Indanan	45	10 (22%)
4. Hidayat MNLF Agri-Fishery Producers Cooperative	Maimbung	19	12 (63%)
5. Osaha Sin Anak Miskin Association (OSAMA)	Lahing-Lahing, Omar	20	-
Total		159	40 (25%)

Source of basic data: KIs with cooperatives and associations

In Basilan, the youth participate in everything from coffee planting to packaging but notably not during processing. In Sulu, they are practically involved in all segments of the chain down to marketing such as in the canvassing of buyers.

⁹⁴ Alexander and Weizel (2011); Moghadam (2004).

In the case of Lupah Sug Processing Services, all its part-time employees are young staff. The youth also comprise 97% and 70% of Nanies' Café and Dennis Café staff, respectively.

Table 74. Roles Played by the Youth in the Coffee Industry in Basilan and Sulu

BASILAN	SULU
<ul style="list-style-type: none"> • Planting • Harvesting/ Picking • Drying • Sorting • Packaging 	<ul style="list-style-type: none"> • Planting • Farm management (including fertilizing) • Harvesting (bean picking) • Sorting • Drying • Processing • Marketing (canvassing of buyers)

Source of basic data: KILs with coffee farmers, traders, processors, and cooperatives

Moreover, it is good to note that one of its Board of Directors and the Vice-Chairman of the KCC in Sulu is a youth. Being technologically-adept, the youth can indeed play a significant role in the cooperative's dealing with external partners and consumers as well as in the education and training of members.

Role of Persons with Disability (PWDs)

Though relatively few in numbers, a total of 10 (~2%) among all 524 coffee farmers in both provinces, the role of PWDs in the coffee VC is worth examining with the end goal of having them meaningfully participate in this productive undertaking.

Table 75. PWD Membership in Respondent Agri-Fishery and Agrarian Cooperatives with Coffee Farmer Members, as of November 2023

COFFEE ASSOCIATION / COOPERATIVE	LOCATION	TOTAL NUMBER OF COFFEE FARMER MEMBERS	NUMBER OF WOMEN MEMBERS
BASILAN			
1. LARBECO	Lamitan City	204	2 (1%)
2. SCARBDC	Lamitan City	68	3 (4%)
3. MARBECO	Manggal, Sumisip	45	2 (4%)
4. TARBIDC	Tumahubong, Sumisip	35	n.d.
5. TARBMC	Tairan, Lantawan	13	n.d.
Total		365	7 (2%)
SULU			
1. Kankitap Consumers Cooperative	Latih, Patikul	50	0 (0%)
2. Alhidaya Farmers Kababaihan Cooperative	Buhanginan and Darayan, Patikul	19	0 (0%)
3. Andihi Agri-Fisheries	Malimbay, Indanan	25	2 (8%)
4. Hidayat MNLF Agri-Fishery Producers Cooperative	Maimbung	45	0 (0%)
5. Osaha Sin Anak Miskin Association (OSAMA)	Lahing-Lahing, Omar	20	1 (5%)
Total		159	3 (2%)

Source of basic data: KILs

The most common role of PWDs is sorting while a few who are still able are also doing planting, harvesting, drying, processing, and packaging.

Table 76. Roles Played by PWDs in the Coffee Industry in Basilan Sulu

BASILAN	SULU
<ul style="list-style-type: none"> • Planting • Harvesting/ Picking • Drying • Sorting • Packaging 	<ul style="list-style-type: none"> • Farming • Harvesting • Sorting • Drying • Processing

Source of basic data: KILs with coffee farmers, traders, processors, and cooperatives and associations

Constraints

The constraints faced by the IPs, women, youth and PWDs along the coffee VC in both provinces are presented in Table 77.

Constraints faced by IPs are underscored heavily in Basilan. Among the constraints they faced are limited access to the market, technology, and financing. Some still feel discriminated against in terms of access to training and education opportunities.

While some headways are already achieved, some women still suffer from traditional gender roles and discrimination amidst household chores delimiting their access to education and training opportunities and access to other factors of production such as land, capital and technology.

Among the constraints faced by the youth, there are still doubts on their capacities in view of their limited experience yet.

Amidst their disabilities, physical and otherwise, the limited physical access to farms and other facilities as well as absence of PWD-friendly infrastructure can exclude PWDs from actively and productively participating in the coffee VC.

All marginal sectors also express their apprehensions and vulnerability to climate change.

Table 77. Constraints Faced by the Marginalized Sectors in the Coffee Industry in Basilan and Sulu

BASILAN	SULU
IPs	
<ul style="list-style-type: none"> • Limited access to market • Limited access to financing • Insufficient knowledge and skills • Limited educational opportunities and trainings (discrimination) • Limited access to technology • Vulnerability to climate change impacts 	Helper
WOMEN	
<ul style="list-style-type: none"> • Lower income and limited control over earnings • Traditional gender roles and discrimination (e.g., limited educational opportunities and training in agricultural practices) • Limited access to coffee buyers • Limited access to land • Vulnerability to climate change 	<ul style="list-style-type: none"> • Household chores • Absence of drying facilities makes the process harder • Lack of technical know-how • Limited access to education, training, finance, technology and markets
YOUTH	
<ul style="list-style-type: none"> • Limited access to financing and market • Insufficient knowledge and skills on coffee farming • Lack of recognition and respect from older generation (from the perception that the youth still lack experience) • Uncertainty regarding the future of coffee farming due to changing climate 	<ul style="list-style-type: none"> • Studies takes away focus • Lack of access to education and training on farming access to finances
PWDs	

<ul style="list-style-type: none"> • Lack of accessible pathways that are PWD-friendly on farms • Limited access to specialized equipment for PWDs • Difficulty in adapting to changing conditions • Challenges in marketing and promotion of the product • Lack of training • Economic dependency and financial exclusion • Underestimation of their abilities 	<ul style="list-style-type: none"> • Mobility • Limited accessibility in physical work in farm • Social exclusion
--	--

Source of basic data: KIIs with coffee farmers, traders, processors, and cooperatives and associations

3.5 Interfirm Relations and Collaborations

Described in this section are the horizontal and vertical interfirm relationships of the different coffee players within the same and across difference segments of the VC.

Horizontal Relationships

Described and analyzed here is the extent of relationships among players in the same segment of the coffee VC in terms of information sharing, competition, trust and benefits from collective initiatives. For each criterion, except for competition, relationships are rated as either weak, moderate, or strong. For the competition criterion, the rating is either effective or ineffective.

As shown in Tables 78-79, a strong and moderate relationship was noted between and among farmers in Basilan and Sulu, respectively. Relative to the processors and traders, coffee farmers are more organized and share a common platform for information sharing and sharing from collective actions through the cooperatives that they belong to. Unlike coffee farmers, processors and traders operate independently from each other.

Table 78. Horizontal Relations among Coffee VC Players in Basilan

CRITERIA	PLAYERS	RATING	DESCRIPTION / UNDERLYING AREAS FOR ASSESSMENT
Information sharing	Input Provider – Input Provider		
	Farmer – Farmers	Strong	Share information and practices with each other.
	Processors – Processors	Moderate	No further elaboration
	Trader – Trader	Moderate	Some are not transparent in terms of pricing
Competition	Input Provider – Input Provider		
	Farmer – Farmer	Ineffective	Farmers don't compete but help each other.
	Processors – Processors	Effective	Small processors compete with big processors in securing coffee beans as raw materials within the province
	Trader – Trader	Effective	Traders compete; make sure that their products are competitive
Trust	Input Provider – Input Provider		
	Farmer – Farmer	Strong	Since they share information and help each other
	Processors – Processors	Weak	Compete in terms of raw materials
	Trader – Trader	Moderate	To trusted ones only

Benefits from Collective Initiative	Input Provider – Input Provider		
	Farmer – Farmer	Moderate	Farmers form cooperatives and groups
	Processors – Processors	Weak	Don't collaborate with each other; no association among processors
	Trader – Trader	Moderate	No further elaboration

Source of basic data: Klls

Table 79. Horizontal Relations among Coffee VC Players in Sulu

CRITERIA	PLAYERS	RATING	DESCRIPTION / UNDERLYING AREAS FOR ASSESSMENT
Information sharing	Input Provider – Input Provider		
	Farmer – Farmers	Moderate	While some farmers are transparent and share some trust and confidence with one another, some are not open to new trends, lack education on agricultural farming.
	Processors – Processors	Moderate	Share information on common causes only; no association among processors
	Trader – Trader		
Competition	Input Provider – Input Provider		
	Farmer – Farmer	Effective	Farmers compete in terms of quality beans.
	Processors – Processors	Ineffective	Small processors compete with big processors in securing coffee beans as raw materials within the province
	Trader – Trader		
Trust	Input Provider – Input Provider		
	Farmer – Farmer	Moderate	Leadership is built on farmer members' trust.
	Processors – Processors	Moderate	Same as sharing information moderately; no conflict
	Trader – Trader		
Benefits from Collective Initiative	Input Provider – Input Provider		
	Farmer – Farmer	Weak to Moderate	Among groups such as cooperatives, benefits are shared among all farmer members.
	Processors – Processors	Weak	Don't have an association of processors; don't talk to each other since there is no venue to do so; minds own business
	Trader – Trader		

Source of basic data: Klls

Vertical Relationships

Discussed here are the relationships of coffee VC players across different segments in the areas of procurement of supply; information sharing on technology and price, quality control and presence of value-added services.

What is glaring from here is the weak interfirm relations especially in Sulu among the different coffee VC players across different levels or segments in the chain. Such that while farmers have strong relationships among themselves, there seems to be disconnect between them and the traders and processors.

Table 80. Vertical Relations among Coffee VC Players in Basilan

CRITERIA	PLAYERS	RATING	DESCRIPTION / UNDERLYING AREAS FOR ASSESSMENT
Procurement of Supply	Input Provider –	Weak	Very limited encounters (once or twice a year only).
	Farmer – Trader	Weak	No transparency in market price.
	Farmer – Processor	Moderate	No further elaboration
	Trader – Processor	Strong	No further elaboration
Information sharing on Technology and Price Cost	Input Provider – Farmer	Weak	Suppliers don't tell the truth about the true variety of the seedlings. Input providers don't share technology.
	Farmer – Trader	Weak	No information and transparency on market/buying price.
	Farmer – Processor	Moderate	No further elaboration
	Trader – Processor	Moderate	No further elaboration
Quality Control	Farmer – Farmer	Strong	
	Processors – Processors	Weak	Compete in terms of raw materials
	Trader – Trader	Moderate	To trusted ones only
Benefits from Collective Initiative	Input Provider – Farmer	Weak	At times, free inputs that were distributed to farmers are not well assessed to the necessity of the farmers.
	Farmer – Trader	Weak to moderate	While traders have no control over quality of farmers' produce; traders, on the other hand, control buying prices
	Farmer – Processor	Weak	Processors have no control on the quality of beans farmers produce.
	Trader – Processor	Moderate to Strong	Most processors are also the traders
Presence of Valued Added Services	Input Provider – Farmer	Weak to Moderate	Private sector suppliers provide no value-adding services to farmers. Government and other enablers do provide value-adding services such as training.
	Farmer - Trader	Weak	No value adding
	Farmer – Processor	Moderate	Some processors provide financing to farmers to capture their raw materials for processing.
	Trader – Processor	Strong	Most processors are also the traders

Source of basic data: KILs

Table 81. Vertical Relations among Coffee VC Players in Sulu

CRITERIA	PLAYERS	RATING	DESCRIPTION / UNDERLYING AREAS FOR ASSESSMENT
Procurement of Supply	Input Provider –	Moderate	Lack of support in terms of farm inputs. Limited frequency (i.e., once a year) and depends on the engagement with the MMO.
	Farmer – Trader	Weak to Moderate	Needs better prices for GBCs. Traders/consolidators dictate the price and are not so transparent, especially in terms of pricing. Traders earn more than farmers.
	Farmer – Processor	Weak	
	Trader – Processor	Weak to Moderate	
Information sharing on Technology and Price Cost	Input Provider – Farmer	Weak	While technology advances, farmers have little access to it. Some farmers didn't receive intervention from LGU/NGAs.
	Farmer – Trader	Weak	Unstable/fluctuating buying prices of coffee. While traders have more access to technologically advanced transactions, these are not shared with farmers. Traders are not so transparent, especially in terms of pricing.
	Farmer – Processor	Weak to Moderate	There's some degree of sharing on prices to trusted farmers as source of raw materials
	Trader – Processor	Weak	
Quality Control	Input Provider – Farmer	Moderate	Suppliers are imposing quality on farmers' produce. Reliance on old practices to ensure the quality of coffee.
	Farmer – Trader/ Consolidator	Weak to Moderate	Poor quality of coffee beans sold in the market; not enough quality to meet market demand. More traders are hesitant about the farmers' produce as it is of poor quality.
	Farmer – Processor	Weak	Processors have no control on the quality of farmers' produce
	Trader – Processor	Moderate	To some degree, can influence price based on quality

Presence of Valued Added Services	Input Provider – Farmer	Weak	No trust in government services due to the “whom you know system”. Not much value adding services from input suppliers.
	Farmer – Trader	Weak to Moderate	Not many value-adding services from traders/consolidators. Less engagement for most farmers, except for buying and selling. Some traders lend money to farmers to be paid later through the coffee to be harvested.
	Farmer – Processor	Moderate	Processors have no control on the quality of beans farmers produce.
	Trader – Processor	Moderate to Strong	While there are some farmers who are also processors, there’s still a need for more farmers to engage into processing (especially secondary)
Presence of Valued Added Services	Input Provider – Farmer	Weak to Moderate	Some traders are also processors.
	Farmer - Trader	Weak	No value adding
	Farmer – Processor	Moderate	Some processors provide financing to farmers to capture their raw materials for processing.
	Trader – Processor	Strong	Most processors are also the traders

3.6. Income

Coffee Farmers

Based on the results of the KII with coffee farmers, monthly income from coffee farming appeared to be higher in Basilan at Php 5,000 – Php 15,000 compared to Sulu’s Php 5,000 and below. The same pattern can be observed on income from intercropping activities. Coffee farming income comprised about 60% - 63% and 33% - 63% of coffee farmers total monthly income in Basilan and Sulu, respectively.

Table 82. Coffee Farmers’ Estimated Total Monthly Household Income versus Monthly Income from Coffee and Other Intercrops in Basilan and Sulu, as of November 2023

PROVINCE	ESTIMATED MONTHLY INCOME (Php)		
	TOTAL	COFFEE	INTERCROPPING
Basilan	8,000-25,000	5,000-15,000	5,000-10,000
Sulu	8,000-15,000	10,000 and below	10,000 and below

Source of basic data: KII with coffee farmers

Aside from coffee farming, many farmers in Basilan get their other and main income from growing coconut and rubber as the province is a major producer of these two industrial crops. Main source of income among Sulu farmers includes coconut and cassava production as well as coffee trading. Still other Sulu coffee farmers also derive additional income from raising native chickens, seaweed farming and fishing.

Coffee Processors

Relative to coffee farmers, coffee processors earn higher incomes. Coffee processors who are also coffee shop owners disclosed even much higher incomes than their ordinary coffee processor counterparts in the province. One coffee shop owner even earns as much as Php100,000/month. This supports the argument that the more value adding a product undergoes, the higher the return though it will also require relatively bigger amount of capital.

Table 83. Coffee Processors' Estimated Total Monthly Income versus Monthly Income from Coffee Processing in Basilan and Sulu, as of November 2023

PROVINCE	ESTIMATED MONTHLY INCOME (Php)		MAIN SOURCE OF INCOME	OTHER SOURCE OF INCOME
	TOTAL	COFFEE PROCESSING		
Basilan	Above 25,000	10,001 – 15,000 or above	Rubber, coconut, other business	Farming, trading, others (tricycle driving)
Sulu	Above 25,000	Above 15,000	Coffee shops	Government employment

Source of basic data: KII with coffee processors

Coffee Traders

Coffee traders in Basilan did not disclose their monthly income from coffee trading but revealed that their total monthly incomes are around Php 25,000 and above. Their major sources of income are copra and rubber trading while trading other minor agricultural crops also provides extra income.

Big traders in Sulu didn't disclose their income specific to coffee trading. Nonetheless, one informant trader who also does his own powdered coffee processing using the traditional method and retails the same in the market disclosed an income of

Table 84. Coffee Traders' Estimated Total Monthly Income versus Monthly Income from Coffee Trading in Basilan and Sulu, as of November 2023

PROVINCE	ESTIMATED MONTHLY INCOME (Php)		MAIN SOURCE OF INCOME	OTHER SOURCE OF INCOME
	TOTAL	COFFEE PROCESSING		
Basilan	Above 25,000	Undisclosed	Trading from copra and rubber	Trading of other agricultural crops such as peanuts, etc.
Sulu	25,000 and above	10,001 – 15,000 or above	Coffee trading	Copra and fish trading

Source of basic data: KII with coffee traders

04

Markets and Market Opportunities

4.1. Market Access

Market Information Sources

Shown in Table 85 are the sources of market information, in terms of market and prevailing buying prices, among coffee VC players in Basilan and Sulu. Indeed, there is no institutionalized source of this market information.

In terms of the prevailing market markets, some farmers are of the view that they are at the mercy of the buyers as the latter dictate market price.

Table 85. Source of Market Information among Coffee VC Players

PARTICULAR	AREA	
	BASILAN	SULU
FARMERS		
Market (who are buyers)	Co-farmers Information from Municipal Tourism Office Head (that there is high demand for coffee and more coffee farmers are needed to fill in the supply gap) Own knowledge	Local consumers and coffee buyers Relatives and friends Co-farmers
Prevailing buying/market price	Buyer's declared price (buyer dictates price) Don't know yet (for new coffee planters)	Word of mouth Local market/buyers Co-farmers Friends
PROCESSORS		
Market	Word of mouth No idea	Social media From customers and contacts
Prices	Other buyers' price (dictated by buyer)	Social media Price comparison from contacts
TRADERS		
Market	Online Local informants	
Prices	Buyer's price Production	

Source of basic data: KII with coffee farmers

Mode and Cost of Transportation

In terms of transporting coffee products from the farm to the market, coffee farmers in Basilan and Sulu use either motorcycles, tricycles, or public utility jeepneys. Some farmers in Sulu still transport their coffee produce through horses. While transportation cost varies, transportation cost in Sulu appears almost double than that of Basilan (Table 86). Other farmers whose coffee trees are not yet bearing fruit now are looking forward to having their own service vehicle by the time they can already start harvesting and marketing their produce.

Table 86. Means and Cost of Transporting Coffee Products in Basilan and Sulu

PARTICULAR	MEANS	COST (Php)
BASILAN		
Farm to processor/trader	Tricycle	500-1,000/trip
	Public utility jeep (PUJ)	40-50/sack
	Bongo	500/trip
	Cargo (for suppliers outside Basilan)	Undisclosed
Processor to next level buyer	Tricycle/truck	500/travel
	Multicab/Own vehicle	1,000/round trip
SULU		
Farm to processor/trader	Horse	100/sack
	Public utility jeep (PUJ) /Tamaraw ⁹⁵	50-200/sack
	Tricycle	50/sack
	Motorcycle	100-150/sack
	Truck	100-150/sack
Processor to next level buyer	PUV	Undisclosed
	Courier	Depending on region/market

Source of basic data: KII with farmers, MAFAR Sulu Note: 1 sack = 50 kg

Among coffee processors, some are picked up from farmers/traders while others wait for farmers/traders to deliver the coffee beans to their processing sites. For instance, EJM and Jezreel, both coffee processors from Basilan, sourced their raw materials from as far as Bukidnon, Lanao del Sur and Sulu as well as Cotabato, respectively. EJM's suppliers do the delivery to Lamitan City where EJM's processing business is located. Meanwhile, Jezreel's and Intercó's Cotabato suppliers deliver the beans to Zamboanga City and Jezreel picked it up from there.

For the next level buyers of processors, some pick up the products from the processing posts while others wait for the products to be delivered to next level buyers' outlets.

Among traders, some picked up from the source while the others had the products delivered to them. Most of the traders' next level buyers also picked-up products from the traders' trading posts.

Mode of Payment

All trading transactions are on a cash on delivery (COD) basis such that a farmer/trader/processor is paid immediately upon delivery of the goods.

Attendance and Participation to Market Linkaging Activities

Many farmers and about half of the processors interviewed in both provinces have not tried attending any market linkage activity too as they don't know of any. Only one farmer respondent from Sulu was able to attend one sponsored and facilitated by the MTIT another processor from the same province through personal and private training activity. The rest quipped that they don't have access to concerned agencies that facilitate such market linkaging activities. Thus, they would appreciate it if some agency/person could help them with the market linkages.

Only a few processors and traders were able to attend market linkaging activities which MTIT sponsored.

4.1.1. Market Channels

⁹⁵ A tamaraw is locally assembled type of a jeepney with Toyota engine.

There are at least eight (8) documented market channels for coffee in Basilan as shown in Figure 46.

Channel 1: Farmers and farmer organizations within Basilan sell their dried coffee cherries with pulp to local traders who then turn the dried cherries to GCB before selling them to local processors for further processing (e.g., roasted beans, ground coffee, powdered coffee) before selling to institutional buyers (e.g., malls, hotels, restaurants, coffee shops) and ultimately to the local consumers.

- Channel 2: Farmer organizations such as MARBECO and LARBECO sell their GCBs to big corporate buyers such as Nestle which in return process it into powdered/instant coffee ready for consumption of the local consumers. Nestle's main processing center is located in Cagayan de Oro City while it has buying stations in some major coffee producing provinces in mainland Mindanao.
- Channel 3: Dried cherries/GCBs from farmers and farmer organizations pass through local traders within the province who then trade to big corporate buyers down the line.
- Channel 4: After passing through the local traders (from farmers and farmer organizations), the GCBs are sold to other local processors particularly coffee shops who then roast and grind the beans and brew them ready to be served to local consumers.
- Channel 5: This is almost like Channel 4 except that the beans from farmers/farmer organizations no longer pass through local traders but go directly to the coffee shops.
- Channel 6: This applies to farmers and farmer organizations who are also into secondary coffee processing and sells them to institutional buyers before the processed products reach the final consumers.
- Channel 7: In this pathway, the farmer/farmer organization who processed coffee products mostly into ground and powdered coffee sells directly to the local consumers within the province.
- Channel 8: The sourcing of dried beans from traders in mainland Mindanao, particularly that of EJN and Jezreel in response to the production deficit of coffee in Basilan is illustrated in this market channel.

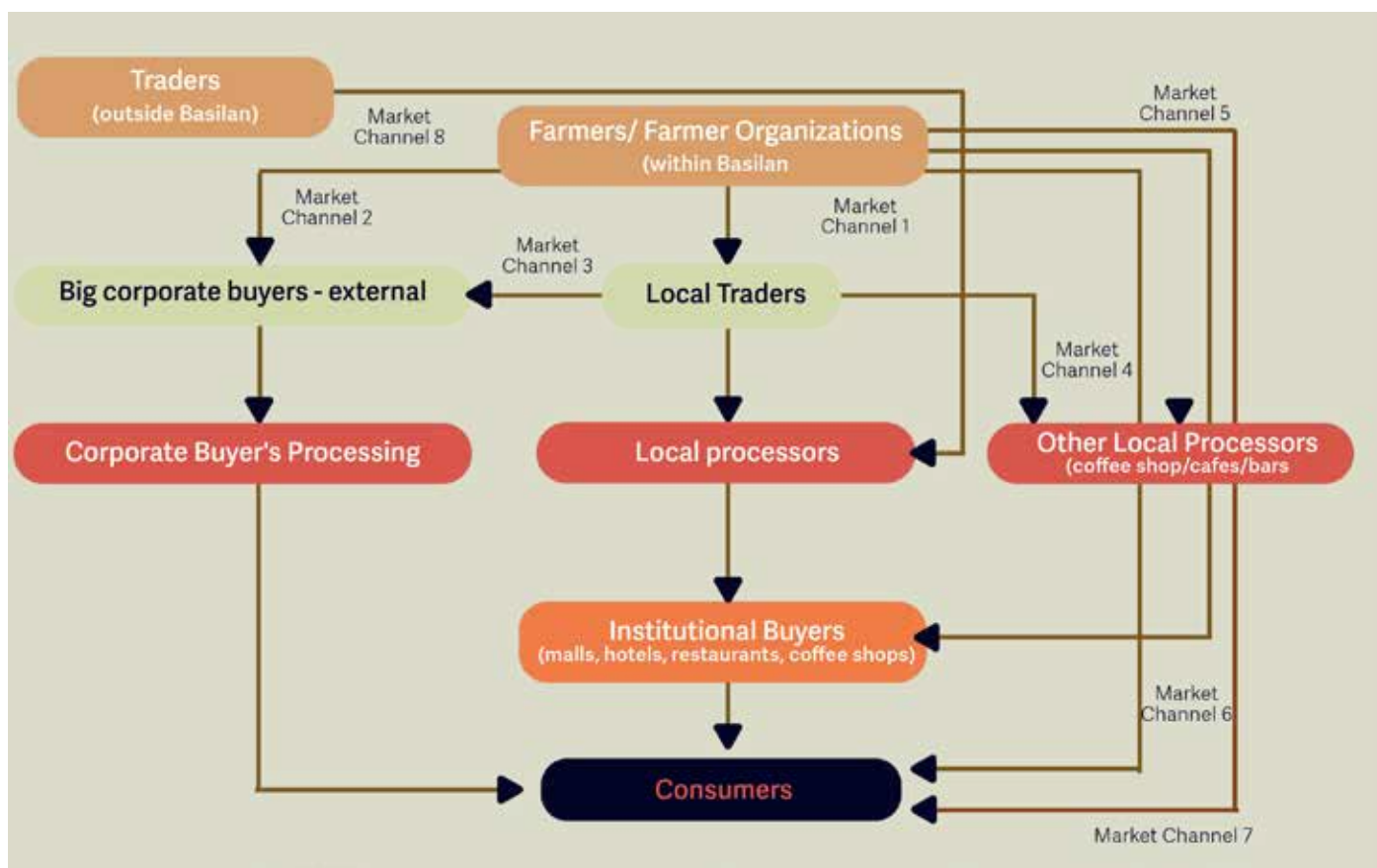


Figure 46. Market Channels for Coffee in Basilan

For Sulu, there are at least six (6) marketing channels documented (Figure 47). These market channels are like that of Basilan except for two main features. First is the absence of trader suppliers outside of the province. All coffee processors and traders in Sulu source their raw materials from farmers in nearby municipalities all within the province.

The second main difference is that farmers and/or farmer organizations such as cooperatives in Sulu do not have direct access to big corporate buyers as they all must go through the local traders and/or consolidators. This has been one of the constraints raised by one of the cooperatives in which they have high hopes that the Sulu Federation can be a leverage venue for them to consolidate a bigger volume and negotiate for better prices.

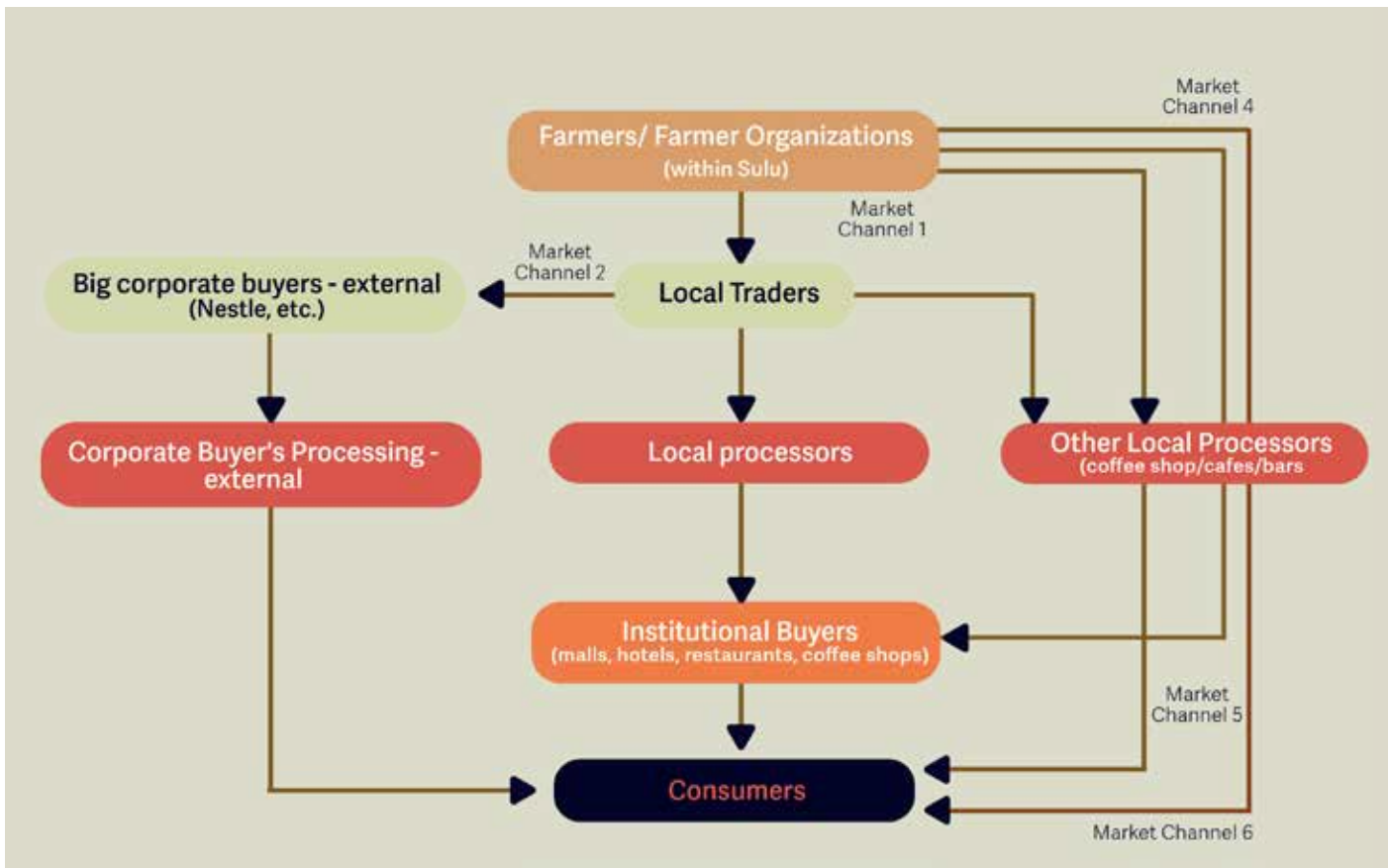


Figure 47. Market Channels for Coffee in Sulu

Aside from face-to-face transactions via trading posts, processors and traders are also now maximizing online platforms such as that of Shopee and Lazada. Others also have their own facebook pages for their products and services.

4.1.2. Market Geographical Flow

Basilan

Coffee traders and processors in Basilan source their raw materials such as the dried cherries with pulp from the coffee producing municipalities and cities in the province such as that of Sumisip, Al-barka, Lantawan, Lamitan City and Isabela City. Still other secondary processors such as EJM and Jezreel have suppliers outside of Basilan reaching as far as Bukidnon, Cotabato, Lanao del Sur and Sulu. This is a clear manifestation that local supply within the province of Basilan is not enough for the requirements of these local processors.

Secondary processed products from Basilan are marketed within and outside the province. For instance, EJM and UWARBMPC market their products to Zamboanga City while SCARBDC's ground coffee reaches as far as Cotabato, Palawan, and Pagadian.

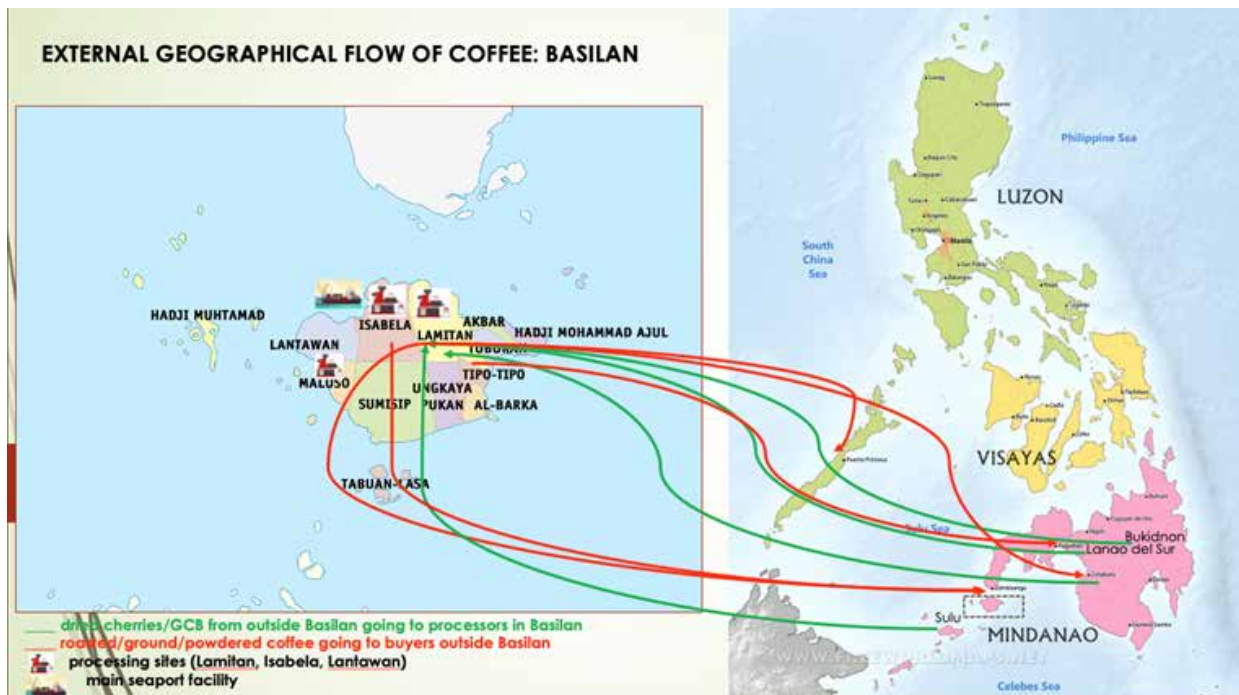
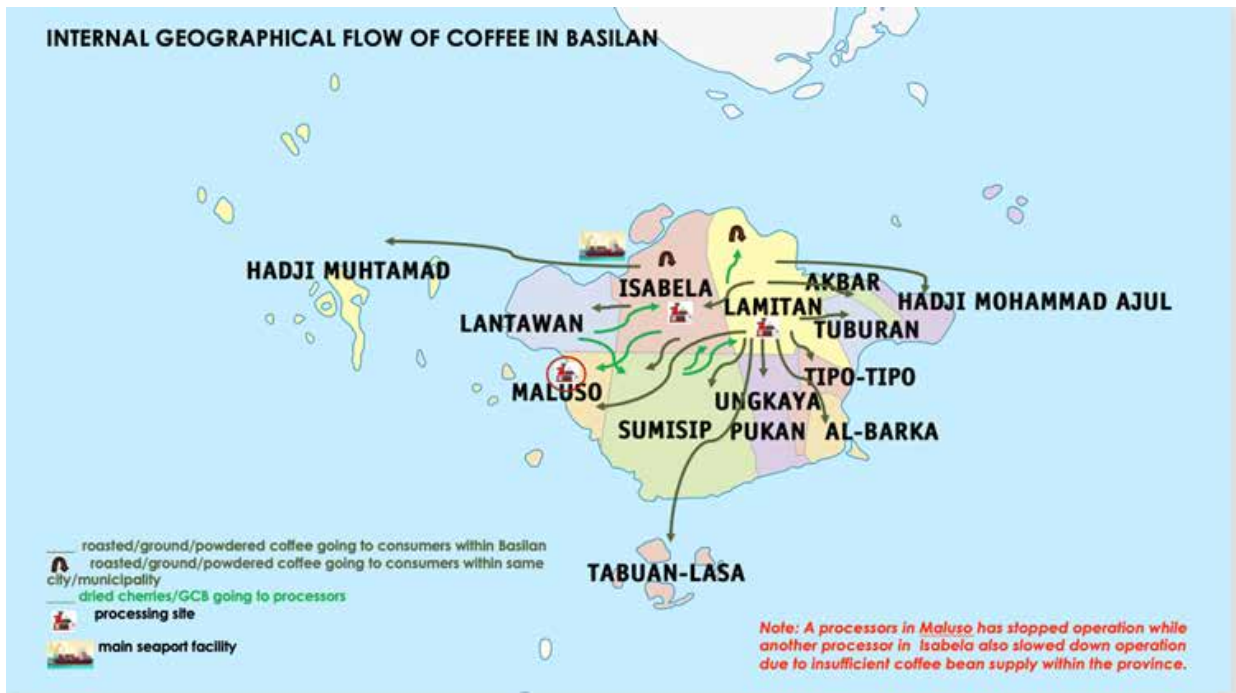


Figure 48. Geographical Market Flow of Coffee from Basilan

Sulu

In Sulu, the coffee beans as raw materials for processing are all sourced from local coffee farmers within the province.

Coffee products from Sulu are marketed in different areas all over the country as shown in Figure 49.

In Zamboanga City, these can be found in local restaurants like Dennis and other local malls and coffee shops in the city. Lupah sug's Suluanos Kape: Kahawa Lupah Sug, KCC's Qahwa Sug, and Herman and Co.'s Kauman Sulu Coffee reach as far as the cafes in Cebu, Metro Manila, Davao City and Cotabato City. The other processors and traders also deliver Sulu coffee products to Tawi-Tawi, Basilan, Zamboanga City and the rest of the Zamboanga Peninsula, and Cagayan de Oro City.

Some of these coffee products of Sulu also reached as far as Saudi Arabia, Malaysia, Europe, and Japan through informal channels as pasalubong items of families, relatives and friends.⁹⁶

96 Source: PRDP Mindanao Coffee VCA

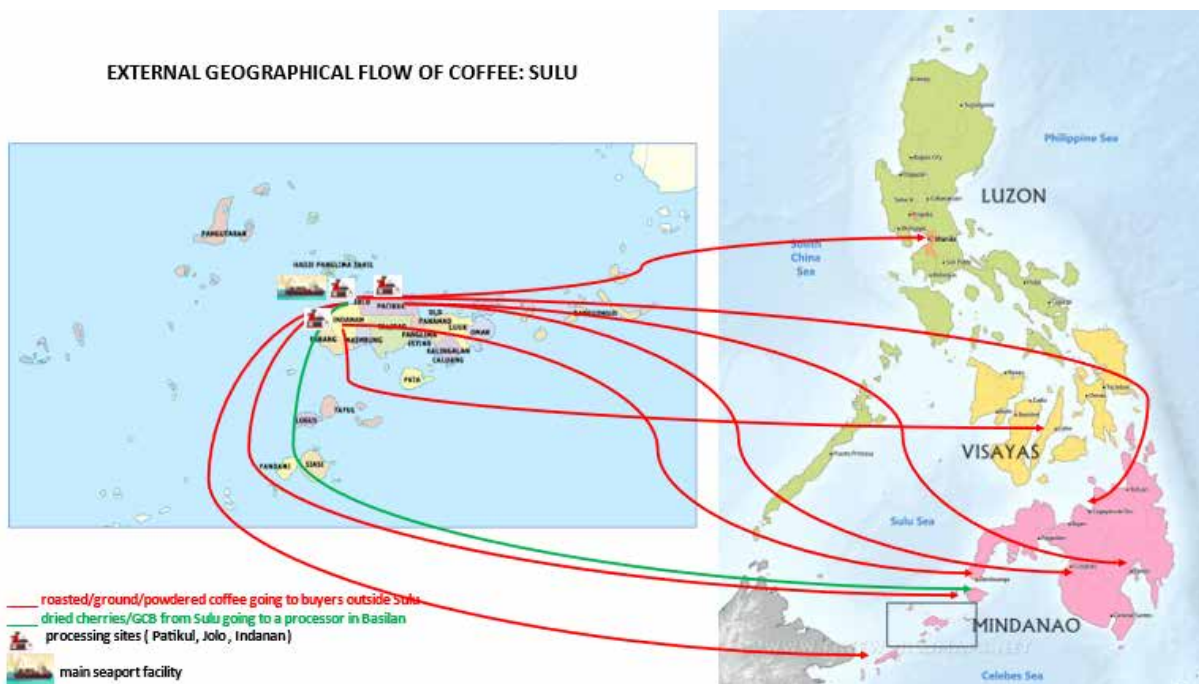
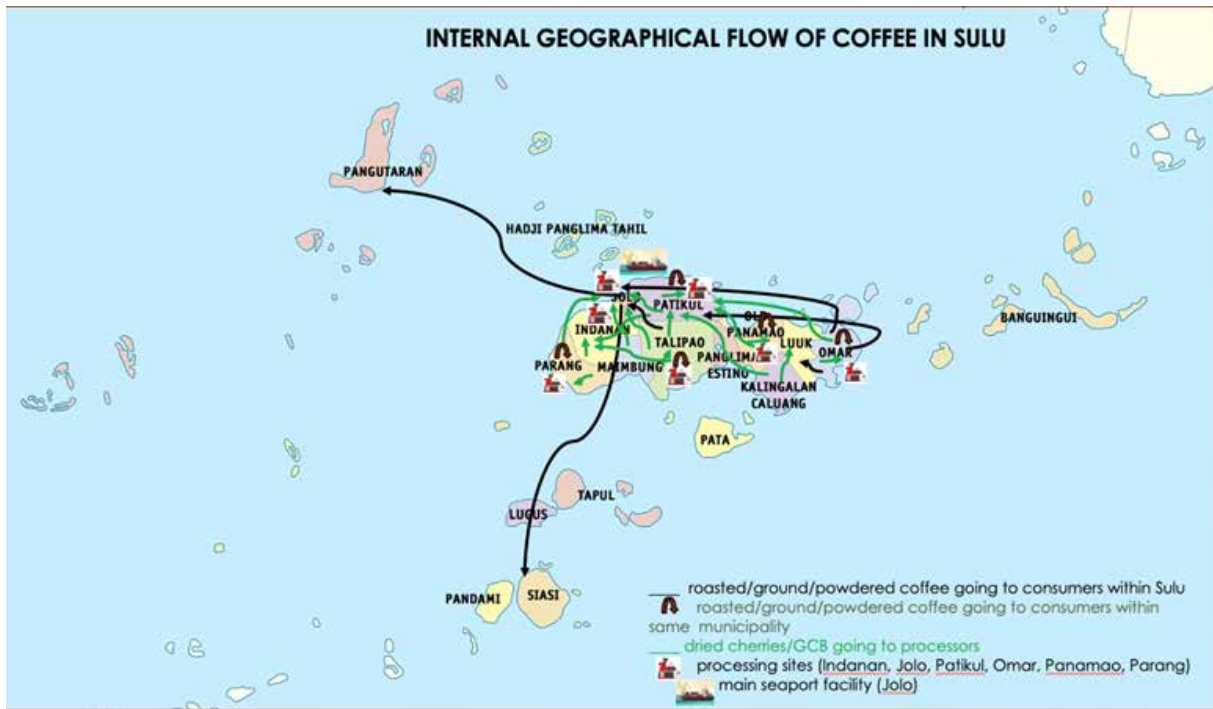


Figure 49. Geographical Market Flow of Coffee from Sulu

4.2. Market Opportunities and Dynamics

Given the expansion of the specialty coffee market and the production of premium Robusta over recent years, distinct market trade dynamics will be greatly influenced by these factors. Aside from consumption among the locals in the island provinces, the coffeehouse industry (i.e., Starbucks, Figaro, Bo's, and Coffee Bean and Tea Leaf) has grown. Retail third wave (barista, preparation focus) and fourth wave (roaster innovation-roast kinds, on demand roasting, home roasting, etc.) coffee shops are becoming more and more popular. Young professionals and those with greater financial means who wish to unwind and meet up with friends and colleagues typically frequent them. Restaurants, quick food restaurants, doughnut shops, and small local eateries also offer coffee.

Observations on Past and Forecasted Supply and Demand for Coffee in Basilan and Sulu

Coffee processors in both provinces are all in agreement that there is indeed high demand for coffee at present.

As corroborated by the farmers', processors' and traders' anecdotes, Basilan's local coffee production has significantly declined compared to its heydays in the past. This is due to the observed reduction in the number of farmers who engage in coffee farming as many of them shifted to rubber and coconut amidst sustained decline in coffee prices in the past. The remaining coffee trees are also left unrejuvenated. This current decrease in production volume amidst high demand for coffee, drive prices up (see succeeding discussion on prices). Indeed, there is a huge opportunity for Basilan's coffee industry to rise again.

When asked about their observations in the quality of the coffee they procured during the last five years, EJN and Jezreel processors of Basilan answered that there has been consistency in good quality beans as well as volume of their suppliers that is why they continue to do business with them despite that these suppliers are in faraway provinces.

For Sulu processors, there's mixed observation though more are of the view that they are already on the road to improvement. For instance, one processor cooperative expressed that their coffee quality has already improved at present, though not really at 100% yet. They attribute the improvement to the right harvesting technique, and they now have access to the right postharvest and processing facility.

Looking forward, the processors in Basilan are optimistic that with the renewed interest in coffee farming among farmers and with new coffee farmers coming in, coupled with the right mix of technical and financial assistance, including rehabilitation of remaining coffee farms, volume of local coffee production in the province will eventually increase. The same optimism is also shared by processors from Sulu.

4.3. Pricing and Price Trends

According to KIs with farmers, the market price of coffee is rising because of rising demand. The enhancement of coffee bean quality using GAP and GMP is crucial to this trend, though.

National Average Price

Prices of GCB during the last seven years as reported by the PSA are shown in Table 87. The AAGR for Arabica, Excelsa and Robusta BARMM, Basilan and Sulu revolved around 4-5% during the same period. PSA does not report prices for Liberica, though.

Table 87. Annual Farmgate Price⁹⁷s of Green Coffee Beans (GCB) in Basilan and Sulu, by Variety and Product Form, in Php/kg, 2016-2022

AREA/ VARIETY / YEAR	PRICE (PHP/KG)							AAGR (%)
	2016	2017	2018	2019	2020	2021	2022	
PHILIPPINES								
Coffee Arabica	93.38	104.80	106.00	104.88	103.25	105.41	159.37	10.67
Coffee Excelsa	81.81	89.43	91.74	86.91	82.04	90.14	90.24	1.84
Coffee Robusta	74.29	81.70	80.81	79.53	72.92	72.60	84.58	2.52
BARMM								
Coffee Arabica	70.19	85.46	86.69	86.11	86.24	86.99	87.40	4.00
Coffee Excelsa	65.12	77.86	77.70	80.11	81.52	82.58	84.03	4.55
Coffee Robusta	67.14	75.68	74.56	79.36	82.75	5.49
BASILAN								
Coffee Excelsa	68.00	75.76	73.44	78.97	83.71	5.47
Coffee Robusta	67.14	75.68	74.56	79.36	82.75	5.49

⁹⁷ This is based on the new time series computation of PSA where the monthly average farmgate price by region per commodity is computed as the arithmetic mean of the average prices of the provinces.

SULU								
Coffee Arabica	70.19	85.46	86.69	86.11	86.24	86.98	87.40	4.00
Coffee Excelsa	62.23	79.96	81.95	81.23	81.17	82.58	83.91	5.56

Source: PSA, <https://openstat.psa.gov.ph/>

.. No data

Range of Local Prices

Meanwhile, Table 88 shows the range of prevailing buying prices of different coffee product forms in Basilan and Sulu based on the KIs conducted with coffee farmers, processors, and traders as of November 2023. Prevailing market prices appear in range. The first class or higher quality and branded coffee products are in the upper spectrum while the lower grades and unbranded ones occupy the lower end of the price range. Also, buying prices for different coffee products in Basilan are significantly higher than that of Sulu. Interestingly, Civet coffee commands prices as much four times higher than its ordinary counterpart. Between the two provinces, only Sulu has civet coffee.

Table 88. Prevailing Market Price of Different Coffee Product Forms in Basilan and Sulu, as of October 2023

PRODUCT FORM	MARKET PRICE RANGE (PHP/KG)	
	BASILAN	SULU
Red Cherry Beans (RCB)	20-25	20
Dried Cherry Beans with Pulp	50-110	40
Green Coffee Beans (GCB)	150-200	80-150
Roasted coffee beans	350-500	130-300
Ground coffee	500 - 1,000*	150-300
Powdered/instant coffee (regular)	600-1,000*	500 (sold at Php100/200g pack)
Powdered/instant coffee (Civet Coffee)	Not applicable	1,500 (sold at Php300/200g pack)

Source: KIs with farmers and traders

*The P1,000 is computed as Php150/125-gram pack for blended and Excelsa

05

Enablers and Support Services

This Section summarizes financial and financial services being made available to coffee actors in Basilan and Sulu by both public, private and NGOs.

5.1. Financial Support Services

Regular Financing

Among the existing financial support services from banks, the Landbank of the Philippines is the most widely known even to the coffee farmers, processors, traders and retailers in Basilan and Sulu. Shown in Table 89 are the available credit programs, eligibility criteria and loan features.

Table 89. Financial Support from Landbank⁹⁸ Available to Coffee Industry Actors in Basilan and Sulu

CREDIT PROGRAM	DESCRIPTION/ OBJECTIVE	ELIGIBLE BORROWERS AND CRITERIA	LOAN FEATURES
Agricultural Competitiveness Enhancement Fund (ACEF) Lending Program	Credit support to farmers, fishers, cooperative, associations, and MSEs to increase their productivity and enhance competitiveness. To comply with RA 8178 (Agricultural Tariffication Act) as amended by RA 10848 (ACEF Extension Act), the ACEF is meant to increase the productivity of farmers and fishers, and their cooperatives and associations, and micro and small enterprises, through the extension of credit assistance, among others.	<p><u>Borrowers</u></p> <ul style="list-style-type: none"> Individual farmers and fishers Purchase of farm inputs and equipment or for farm improvement) Micro and Small Enterprises/ Farmers and Fishers Cooperatives and Associations Acquisition/establishment of machineries, equipment and facilities for agri-based production and post-production, and processing Purchase of raw materials/ inputs necessary for the operation of the facilities and equipment to be established and funded under the program Conduits Relending to individual farmers and fishers <p><u>Criteria</u></p> <ul style="list-style-type: none"> Individual farmer and fisher <ul style="list-style-type: none"> » With viable project » Not an existing Landbank borrower » No outstanding loan from other lending institutions for same project being applied for With marketable surplus of the project or other confirmed sources of repayment Micro and Small Enterprises <ul style="list-style-type: none"> » Duly registered with the DTI/SEC » No adverse findings » Not an existing Landbank borrower » With viable project » No outstanding loans from other financial institutions for same project being applied for 	<p><u>Amount</u></p> <ul style="list-style-type: none"> Individual Farmer and Fisherfolk Up to 1.0 Million per individual borrower Cooperatives and Associations 5.0 Million per farmers' and fishers' cooperative/association Micro and Small Enterprises 5.0 Million per MSE <p>Coops/associations/ MSEs may avail of multiple loans provided that the aggregate loan amounts do not exceed their respective loan limit.</p> <p><u>Financing Mix</u></p> <ul style="list-style-type: none"> 90% : ACEF 10% : Borrower's Equity <p><u>Credit Facilities</u></p> <ul style="list-style-type: none"> Short Term Loan Term Loan <p><u>Interest rate</u></p> <ul style="list-style-type: none"> 2% per annum <p><u>Loan Tenor/ Repayment Term</u></p> <ul style="list-style-type: none"> Shall depend on the gestation period of the commodity to be financed For acquisition of fixed asset/s, the term of the loan shall depend on the projected cash flow but no longer than the economic useful life of the fixed assets/s <p><u>Security/Collaterals</u></p> <ul style="list-style-type: none"> Production Combination of the following: PCIC insurance, if applicable Assignment of expected produce

⁹⁸ The Landbank of the Philippines (Landbank), as one of the government-owned banks in the Philippines, is mandated to give focus on serving the needs of farmers and fisherfolks.

		<ul style="list-style-type: none"> Farmers' and Fishers' Coops and Associations <ul style="list-style-type: none"> » Duly registered with the CDA/ SEC » Operational for at least 6 months » No adverse findings on the borrower » Not an existing LANDBANK borrower » With core management team composed of manager, cashier and treasurer or equivalent positions » With proven track record (experience, training and preparation of officers and members to implement the proposed project to be financed) 	<u>Acquisition of fixed assets</u> <ul style="list-style-type: none"> Any or combination of the following: <ul style="list-style-type: none"> • Chattel mortgage on object of financing • Assignment of expected produce • PCIC Insurance proceeds, if applicable
Sulong Saka	<p>Provides credit assistance to farmers cultivating high-value crops such as banana, cacao, coffee, oil palm, rubber, vegetables, among others and for various qualified stakeholders. To support production, processing, marketing and other agribusiness projects.</p>	<p><u>Eligible Borrowers</u></p> <ul style="list-style-type: none"> Individual Small Farm Holders Small and Medium Enterprises (SMEs) Cooperatives Farmers Associations/Organizations Large Agribusiness Enterprises (LAEs) / Corporation LGUs NGOs Countryside Financial Institution (CFIs) <p><u>Eligible Criteria</u></p> <ul style="list-style-type: none"> Must pass the Bank's established Risk Asset Acceptance Criteria (RAAC) prevailing as of the date of application For small holders farmers: <ul style="list-style-type: none"> Minimum farm area of 0.5 hectare but not more 5 hectares Must be the landowner or a leaseholder <ul style="list-style-type: none"> • For landowner – must be an actual tiller or is directly supervising the farming activities and must have a land title (OCT, TCT, EP or individual CLOA) • For leaseholder – must have a written or notarized lease contract or similar contracts with remaining term at least equal to the term of the loan • Must have no existing loan with Landbank, Landbank conduits and other creditors covering same project area or that such loan has already been fully paid • Must have an identified market for his/her produce, preferably through purchase orders with reliable buyers or traders <p><u>Eligible Projects</u></p> <ul style="list-style-type: none"> Production of High Value Crops such as Vegetables (Highland, Lowland, Spices, Legumes); Fruits (Mango, Banana, Pineapple, Others); Industrial Crops (Abaca, Bamboo, Coffee, Cacao, Rubber, Oil Palm) and Alternative Food Staple Crops (Saba-Cardaba, Soybean, Rootcrops) Establishment of nursery, budwood/mother plant/parent clone gardens New Plantation, Replanting, Rejuvenation, Rehabilitation of old trees Post-harvest activities (fermentation, drying,) and processing/manufacturing (roasting, grinding/milling, packaging, storage) Trading, Export 	<p><u>Loan Purpose</u></p> <ul style="list-style-type: none"> Fixed Asset Acquisition Building Construction Production Loan Rediscounting Working Capital/Commodity Loan Permanent Working Capital <p><u>Loan Amount</u></p> <ul style="list-style-type: none"> For Production Loan-standard project cost sharing of 80:20 (90:10 for small farmers) For Fixed Assets - not more than 80% of the acquisition/ construction cost For Commodity Loan - up to 85% of the market price of commodity at the time of availment For LGUs - not more than the net borrowing capacity based on BLGF certification

<p>Agricultural Credit Support Project⁹⁹</p>	<p>Offers loan funds toward increasing investments, creating new job opportunities, and improving agricultural productivity in the rural areas.</p> <p>The ACSP provides credit support to agriculture and agri-related projects within a value chain.</p>	<p><u>Eligible Borrowers</u></p> <ul style="list-style-type: none"> • Agrarian Reform Beneficiaries Organizations (ARBOs) • Farmers Organizations (FOs) other than ARBOs • Peoples Organizations (POs) • Other Conduits such as Co-ops, Rural Banks and NGOs <p><u>Eligible Sub-Borrowers</u></p> <ul style="list-style-type: none"> • ARBs or their household members who are actual cultivators of the land and have no outstanding loan with any financing institutions for the same project/loan being applied for <p><u>Eligible Criteria</u></p> <ul style="list-style-type: none"> • With legal personality (duly registered with SEC and CDA) <ul style="list-style-type: none"> » With ARB members » With core management team (i.e. manager, cashier, bookkeeper) » Must be operational for the past six months » With systems and procedures in place (particularly in lending) • For other conduits <ul style="list-style-type: none"> » Regular lending criteria of LANDBANK » Eligible Projects » Crop production (short and long gestating crops) » Agri-enterprise » Livelihood projects (agri-related) 	<p><u>Loan Tenor</u></p> <ul style="list-style-type: none"> • Short Term Loan- not more than 1 year • Term Loans-more than 1 year but not to exceed 7 years inclusive of up to 3 years grace period <p><u>Pass-On Rate to Sub-Borrower</u></p> <ul style="list-style-type: none"> • 15% per annum for Short-term Loans • 16% per annum for Term Loans <p><u>Loanable Amount</u></p> <ul style="list-style-type: none"> • For Crop Protection <ul style="list-style-type: none"> » Up to 80% of the total project cost • For Agri-Enterprise and Livelihood Projects • For those with existing crop production loan, up to 10% of the loan portfolio of the borrower • For those without existing crop production loan under APCP, up to P1,000,000 per borrower <p><u>Interest Rate</u></p> <ul style="list-style-type: none"> • For short term loans = 8.5% per annum* • For term loans = 9.5% per annum* <p>* inclusive of 2% interest rebate for prompt payment and adherence to prescribed pass-on rates</p>
<p>ARISE-ARBs Program</p>	<p>ARISE-ARB program aims to make available financing support for disaster affected ARBs/SFHs and their families to restore livelihood and farming activities.</p>	<p><u>Eligible Borrowers/Conduits</u></p> <ul style="list-style-type: none"> • ARB Cooperatives • Farmers Associations with ARB and SFHs members <ul style="list-style-type: none"> » -which and/or whose members have been affected by typhoons, disasters and other natural calamities as declared by the NDRRMC or LGUs. <p><u>Eligibility Criteria</u></p> <ul style="list-style-type: none"> • With juridical personality (duly registered with Cooperative Development Authority, Securities and Exchange Commission and other registering agencies) • With complete/part time or full time Core Management Team (Manager, Cashier/ Treasurer and Bookeeper) • With operations and lending manual in place • With books of accounts, accounting and internal control system • Others: <ul style="list-style-type: none"> » With minimum paid-up capital of P15,000.00 » With past due ratio of not more than 25% before the occurrence of the calamity » With capital build-up and savings mobilization program » Excluded are those provided with financial support by other government agencies, non-government organizations and private institutions 	<p><u>Loan Purpose</u></p> <ul style="list-style-type: none"> • Livelihood/Agri-Enterprise Loans - To augment conduit funds for relending to ARBs/SFHs to finance their livelihood and agri-enterprises projects • Providential Loans -to augment conduit's funds for relending to member ARBs/SFHs to finance their house or office repairs; <p><u>Maximum Loanable Amount</u></p> <ul style="list-style-type: none"> • Livelihood/Agri-Enterprise Loans - Up to P1.0 million per conduit • Providential Loans - Up to P10,000 per ARB/ SFH or Up to P100,000 per conduit <p><u>Interest Rate</u></p> <ul style="list-style-type: none"> • Livelihood/Agri-Enterprise Loans - 3% per annum • Providential Loans - 0% <p><u>Pass On Rate</u></p> <ul style="list-style-type: none"> • Livelihood/Agri-Enterprise Loans - 6% per annum • Providential Loans - 3% <p><u>Collateral</u></p> <ul style="list-style-type: none"> • Assignment of sub-borrowers' promissory notes (PNs) and underlying collateral, if any • Assignment of Insurance claims, if any. (applicable for livelihood/Agri Enterprise loans only)

⁹⁹ The Department of Agriculture, Department of Agrarian Reform, Department of Environment and Natural Resources and Land Bank of the Philippines partnered to provide credit assistance to Agrarian Reform Beneficiaries (ARBs) through their respective organizations and support their on-farm and off-farm activities whether individual or communal projects.

<p>Young Entrepreneurs from School to Agriculture Program</p>	<p>It aims to encourage the youth to engage in viable and sustainable agricultural and agribusiness projects. This program will help equip them with capital and skills.</p> <p>The YESAP is available to young agri- entrepreneurs, in a more convenient scheme that has been tailored to their needs.</p>	<p><u>Eligible Borrowers</u></p> <ul style="list-style-type: none"> • Micro, Small and Medium Enterprises (MSMEs) registered as Sole Proprietorship <p><u>Eligibility Criteria</u> The MSMEs must pass the following <u>criteria</u>:</p> <ul style="list-style-type: none"> • 18 to 35 years old upon loan application (Existing borrowers under the program may still re-avail/renew/re-establish loans under the program whose age is more than 35 years old) • Graduate of at least secondary education or vocational course duly registered with the DTI • With no adverse findings on character • With viable project (whether start-up to actualize business idea or expansion of existing business endeavor) • Must have attended the credit-worthiness training and other skills trainings, such as Entrepreneurial, Farming Literacy and Technical/Skill training thru the Landbank Countryside Development Foundation, Inc. (LCDFI), Technical Education and Skills Development Authority (TESDA)* or other training institutions accredited/licensed by the Government* • Subject to forging a tie-up <p><u>Eligible Projects</u></p> <ul style="list-style-type: none"> • Agricultural and Fishery Production Trading, processing, servicing and distribution of agricultural crops and commodities <p><u>Available Credit Facility</u></p> <ul style="list-style-type: none"> • Short-term Loan Line • Domestic Bills Purchase Line • Term Loan 	<p><u>Loan Purpose</u></p> <ul style="list-style-type: none"> • Working capital – including land acquisition, provided it will be used for the project • Purchase of farm inputs, tools, equipment and farm implements • Construction of mill, storage, dryer and other facilities <p><u>Maximum Loanable Amount</u></p> <ul style="list-style-type: none"> • Generally, depending on the requirement of the borrower but not more than 90% of the total project cost* • Minimum of P50,000 per borrower • For land acquisition - based on loan value but not more than 20% of the total project cost* • Summation of costs of all project components including the cost of the land to be acquired. <p><u>Interest Rate</u> Based on prevailing interest rate</p> <p><u>Loan Tenor</u></p> <ul style="list-style-type: none"> • Via up to 360-day PN • Term Loans - not more than 10 years inclusive of grace period on principal and/or interest, depending on the cash flow <p><u>Repayment Period</u></p> <ul style="list-style-type: none"> • Based on crop/project cycle or cash flow, whichever is applicable • For acquisition of fixed assets, based on cash flow but not more than the remaining economic useful life of the asset financed • <p><u>Penalty</u></p> <ul style="list-style-type: none"> • 3% p.a. with a 30-day grace period <p><u>Collateral</u></p> <ul style="list-style-type: none"> • Any combination of the following: • Assignment of guarantee and/or PCIC insurance proceeds (if applicable) • Assignment of receivables/proceeds of market contract (if applicable) • Post-dated checks (except on-us checks) • Object of Financing • Real Estate Mortgage • Note: Object of financing (if any) will always be part of the above combination. For acquisition of land, REM shall be required.
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<p>Rural Agro-enterprise Partnership for Inclusive Development (RAPID) and Growth Credit Facility</p>	<p>The Rural Agro-enterprise Partnership for Inclusive Development (RAPID) and Growth Credit Facility or RAPID Growth Credit Facility is a collaborative undertaking by the Landbank and DTI that aims to increase the income of small farmers and unemployed rural men and women.</p> <p>BARMM is included in the covered regions and is available until July 08, 2024.</p>	<p><u>Eligible Borrowers</u></p> <ul style="list-style-type: none"> • Cooperatives • Farmers Associations/ Organizations • NGOs • MSMEs <p><u>Eligibility Criteria</u></p> <ul style="list-style-type: none"> • Endorsed by the DTI • Must pass the Bank's Risk Asset Acceptance Criteria (RAAC) <p><u>Eligible Projects</u></p> <ul style="list-style-type: none"> • Production of cacao, coconut, coffee and processed fruits and nuts, including the development of new plantation, replanting, rejuvenation, rehabilitation of old trees • Establishment of nursery, budwood/mother plant/parent clone gardens • Post-harvest activities (fermentation, drying,) and processing/manufacturing (roasting, grinding/milling, packaging, storing) • Trading 	<p><u>Loan Purpose</u></p> <ul style="list-style-type: none"> • Fixed Asset Acquisition • Building Construction • Production Loan • Working Capital/Commodity Loan • Permanent Working Capital • Credit Facility • Short Term Loan Line (STLL) • Term Loan (TL) <p><u>Loanable Amount</u></p> <ul style="list-style-type: none"> • Up to 90% of the project cost, net of the matching grant amount <p><u>Interest Rate</u></p> <p>Principal</p> <ul style="list-style-type: none"> • Fixed at 5% per annum (p.a.) for 3 years, subject to repricing thereafter based on market rate but shall not be lower than 5% p.a. • For Relending - Based on market rate per client sector but not more than 5%. Pass-on rate shall not be more than 10%, exclusive of reasonable fees and charges <p><u>Loan Tenor</u></p> <p>Term of Loan</p> <ul style="list-style-type: none"> • Production, based on crop cycle/gestation and payback period of the project • For Fixed Asset Acquisition, based on project cash flow but not more than the economic useful life of fixed assets or remaining useful life for secondhand/refurbished machines • For Permanent Working Capital, 3 years • For Working Capital, via Promissory Notes (PNs) of up to 360 days <p><u>Grace Period</u></p> <ul style="list-style-type: none"> • Grace period may be granted depending on the projected cash flow <p><u>Collateral/Credit Enhancers</u></p> <ul style="list-style-type: none"> • Any or a combination of the following: <p><u>Collateral</u></p> <ul style="list-style-type: none"> • Real Estate Mortgage (REM) • Chattel Mortgage • Other collaterals acceptable to the Bank <p><u>Credit Enhancers</u></p> <ul style="list-style-type: none"> • Assignment of Receivables/Purchase Orders • Assignment of Sales Proceeds of Expected Produce • Assignment of "quedan receipts" issued by the cold storage firm or bonded warehouse • All other available credit enhancement instruments e.g., assignment of insurance claims, Production, Technical and Marketing Agreement (PTMA), cash capture mechanism thru Debt Service Reserve Account, guarantee from Credit Surety Fund, Agricultural Guarantee Fund Pool, among others, as applicable.
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Source of basic data: LBP (<https://www.landbank.com/loans/loans-to-farmers-fishers/for-farmers>)

While other government banks such as the Development Bank of the Philippines (DBP) also offer development financing for mSMEs¹⁰⁰ through its Sustainable Enterprises for Economic Development (SEED) Program and Sustainable Agribusiness Financing Program (SAFP), it has no branch in either Basilan or Sulu. Its nearest branch is in Zamboanga City.

Aside from banks, other formal channels also offer financial services. For instance, the MAFAR has its Loan for Enhancement of Necessary Development Strategies (MAFAR LENDS) which aims to "provide funding support and loan assistance for micro and small enterprises engaged in marketing, processing and trading of agriculture and fisheries and other supply chain activities to ensure availability of food supply especially in remote areas."¹⁰¹

100 Source: <https://www.dbp.ph/developmental-banking/micro-small-and-medium-enterprises/>

101 Source: MAFAR LENDS Presentation Material

There are also NGO microfinance institutions such as CARD and ASA Philippines Foundation which offer micro credits to rural communities. Some coffee farmer cooperatives such as the KCC also offer financial assistance to help members survive while waiting for harvest members.

Table 90. Financial Products Offered by Non-Banks Including Cooperatives

FINANCIAL PRODUCT FORM	MAXIMUM LOANABLE AMOUNT (Php)	INTEREST RATE	TERMS OF PAYMENT	REQUIREMENTS
MAFAR LENDS	100,000/ cooperative or association	0%	Monthly payable in 3 years with 6 months grace period	Please see Annex E
KCC micro lending	Up to 75% of member's CBU	2%/ month	Monthly	

Islamic Financing

There are two known institutions providing Islamic financing too – the Al-Amanah Islamic Investment Bank of the Philippines (AAIIBP) and ASA Philippines (Table 91). ASA Philippines introduced Islamic microfinancing products to cater to all women of different faith and started rolling out its Islamic Financing products in BARMM in 2016. AAIIBP has a branch in Jolo, Sulu but none in Basilan. The nearest ASA branch to Basilan and Sulu is in Zamboanga City only.

Table 91. Financing Institutions Providing Islamic Financing

FINANCING INSTITUTION	ISLAMIC FINANCING PRODUCTS
1. Al-Amanah Islamic Investment Bank of the Philippines (AAIIBP) - offers both Islamic and conventional products	<ul style="list-style-type: none"> • Murabaha financing. It follows the principle under which the Bank purchases the goods or assets required by the client and sells at an agreed mark-up to the client. This principle is also known as cost plus mark-up concept; for working capital or fixed assets depending on the client's needs. • Al-Bai Bithaman Ajil (BBA) financing. Financing for the acquisition of a given asset through the concept of a Deferred Payment Sale. Under this scheme, the Bank purchases the asset concerned and subsequently sells the same to the customer at an agreed price which comprises the actual cost of the asset to the Bank and Bank's the margin of profit and allows the customer to settle the payment by installments within the period and in the manner so agreed; for acquisition of a residential house and a commercial building but can also be used for additional operating/working capital. • AL-Ijarah Muntahia Bittamleek. (Leasing ending with ownership) - form of leasing where a property is leased by the Bank (the lessor) to the client (the lessee) in a way that at the end of an agreed lease period, the lessee becomes the owner of the property; for all types of equipment for business, professional, commercial, or industrial use; and real properties for real estate, commercial and industrial use.
2. ASA Philippines	<ul style="list-style-type: none"> • Murabahah to the Purchase Orderer (MPO). This includes Islamic financing intended for micro-business, education, agriculture, water and sanitation and home. • Ijarah Muntahia Bittamleek (IMB). It is intended for solar home system and electrification. • Qard Hassan. It is the equivalent of a benevolent fund.

Source: AAIIBP, ASA (<https://asaphil.org/islamic-financing/>)

5.2. Crop Insurance Services

Although the PCIC has no office in Basilan and Sulu, it is worthy to note the features of its high value crops insurance program as well as the steps necessary in applying for insurance coverage and filing of indemnity as shown in the below Figures. Interested parties may also visit the PCIC website at <https://pcic.gov.ph/insurance-products-2/>.

GENERAL INFORMATION ON THE HIGH VALUE CROP INSURANCE PROGRAM

OBJECT OF INSURANCE
The object of insurance shall be the standing crops planted/grown on the farmland described in the insurance application and over which the assured farmer/grower has an insurable interest on.

AMOUNT OF COVER
The amount of cover or sum insured shall be the cost of production inputs as agreed upon by PCIC and the assured farmer/grower, including a portion of the value of the expected yield (at the option of the farmer) but not to exceed 120% of the cost of production inputs.

PERIOD OF COVERAGE
The insurance coverage shall be on annual basis for annual, biennial and perennial crops; in case of short duration crops which mature in less than one (1) year, the period of cover shall be from planting to harvesting, subject to some stipulations such as waiting period and pre-harvest termination of cover for some crops, as may be specified in the policy.

HIGH-VALUE CROPS COVERED
Abaca, Ampalaya, Anihunum, Avocado, Bagulo Beans/Snap Beans, Bamboo, Banana, Black Pepper, Broccoli, Cabbage, Cacao/Cacao Nursery Seedlings, Calamansi Tree, Carrot, Cashew Tree, Cassava, Cauliflower, Chrysanthemum, Celery, Coconut, Coffee, Cotton, Cucumber, Dragon Fruit, Durian, Eggplant, Falcata, Garlic, Gerbera, Ginger, Gladiol, Guayabano, Honeydew, Jackfruit, Jalropa, Lanzones, Lemon Tree, Luffa, Mahogany, Mango-Fruit, Mangosteen, Mango-Tree, Marang, Melon, Mungbeans, Mushroom, Oil Palm, Okra, Onion, Onion-Red, Onion - White & Yellow, Orange Tree, Pakchoi, Papaya, Peanut, Potato, Pechay - Nalivo & Chinese, Pit Na, Pineapple, Pomeio, Potato, Purple Yam or Ube, Radish, Rambutan, Rasi, Rubber Tree, Santol, Sayote, Shallot, Sorghum, Soybeans, Squash, Star Apple, Strawberry, Stringbeans/Pole Sitao, Sugarcane, Sunflower, Sweet Peas, Sweet Potato, Sweet/Hot/Bell Pepper, Sweetcorn, Taro, Tobacco, Tomato, Upi/Kofli, Gourd, Watermelon, Winged Bean, and Yam Bean/Tumpis.

INSURANCE PREMIUM
The insurance premium shall be market rated and shall be borne solely by the assured farmer/grower. The premium rate shall be on a per crop basis and shall depend on the result of the pre-coverage evaluation, the type and number of risks sought for coverage, as well as other factors such as location-specific agro-climatic conditions, type of soil, terrain, farm management practices, and production and loss records.

The premium rate shall range from 2% to 7% of the total sum insured, subject to deductible and co-insurance provisions.

ASSIGNMENT OF INSURANCE
The assured may assign the policy to any lending institution or other financing conduits with insurable interest on the insured farm/ plantation subject to PCIC's concurrence.

COVERED RISKS
The insurable risks shall be any all or a combination of: typhoon, flood, drought, earthquake, volcanic eruption, tornado, plant diseases, pest infestations; provided that the risks covered shall be limited to those specified in the policy contract. Other perils may be covered subject to the approval of the PCIC Board of Directors (BOD).

EXCLUDED RISKS
Losses arising from:
- Fire not of accidental in nature;
- Theft and robbery, pilage, seizure, strike or other commotion, war, invasion, acts of foreign enemies, hostilities (with or without declaration of war), civil war, rebellion, revolution, insurrection, military or usurped power, nuclear reaction or radioactive contamination (whether controlled or uncontrolled);
- Any measure resorted to by the government in the larger interest of the public;
- Avoidable risks emanating from or due to neglect of the assured/non-compliance with accepted farm management practices by the assured or person authorized by him/her to work and care for the insured crops;
- Any cause or risk not specified under the Covered Risks Section; and
- Any cause or risk not specifically covered in the insurance policy.

Losses occurring:
- Prior to the effectivity of insurance;
- After harvest of the insured crops;
- After expiration date of the insurance policy; and
- Any kind of consequential loss.

FARMER/FARMER ORGANIZATION ELIGIBILITY
Plantation owners, cooperative farm farmers, corporate farm owners and other planters/growers with insurable interest on the farm, who grow high-value crops individually or collectively in large scale, may qualify for coverage under this program; provided the crop production activities shall be supervised by an Agricultural Production Technician whether he/she be an in-house technician (i.e., employed by the proponent) or a government-employed technician.

DOCUMENTS REQUIRED IN APPLYING FOR COVER
1. Application for High-Value Crop Insurance;
2. Parcelary or location map;
3. List of Growers (if applicable); and
4. Other documents that may be required by PCIC.

Figure 50. Features of the PCIC High Value Crop Insurance Program¹⁰²

HAKBANG BILANG	KLIYENTE	TAGAPAGLINGKOD NG PCIC	TALA-ORASAN	NAKATALAGANG KAWANI NG PCIC
1	Magpatala sa nakatalagang tanod. Sabihin kung ano ang pakay at kung sino ang gustong makausap.	Asikasuhin ang kliyente. Samahan sa kawani na gustong makausap.	5 minuto	Nakatalagang Tanod
2	Sabihin kung anong uri ng seguro ang nais at humingi ng tulong kung paano ito isasagawa.	Kapanayamin. Bigyan ng mga babasahin tungkol sa mga programa ng seguro. Ipaliwanag, kung kinakailangan, at tulongan sa pagsasaayos ng Aplikasyon para sa Seguro, kung nanaisin ng kliyente.	15-20 minuto	Insurance Underwriter (IU)/ Insurance Processor (IP) o Hepe ng Marketing and Sales Division (MSD)
3	Isagawa ang Aplikasyon para sa Seguro. Ibigay sa kinauukulang kawani, kasama ang iba pang karagdagang dokumento sa pagpapaseguro, kung kailangan.	Tanggapin at surilin ang aplikasyon kung naaayon sa mga umiiral na alituntunin at patakaran. Kung tama, tatakan ng petsa ng pagkatanggap, lagyan ng palatandaang bilang at ilista sa aklat-talaan. Tuusin ang kaukulang prima at iba pang babayaran at ipaalam ito sa kliyente.	10-15 minuto	Insurance Underwriter (IU)/ Insurance Processor (IP) o Hepe ng Marketing and Sales Division (MSD)
4	Surilin ang pagkakatuos ng prima at iba pang babayaran, kung mayroon. Kung tama, ipahayag ang pagsang-ayon sa pagbabayad nito.	Gawin ang Sertipiko ng Seguro o Polisa, alinman ang nararapat. Daihin sa Hepe ng MSD, kasama ang aplikasyon at mga kaukulang dokumento, para sa lagda ng pagsang-ayon.	5-10 minuto	Insurance Underwriter (IU)/ Insurance Processor (IP) o Hepe ng Marketing and Sales Division (MSD)
5	Hintayin ang pagsang-ayon ng Hepe ng MSD.	Surilin ang mga dokumento, at kung tama, lagdaan ng pagsang-ayon. Ibalik ang mga dokumento sa IU o IP.	5-10 minuto	Hepe ng MSD
6	Bayaran ang kaukulang prima at iba pang babayaran, kung mayroon.	Tanggapin ang bayad na prima mula sa kliyente at igawad ang kaukulang Sertipiko ng Seguro o Resibo sa Pagbabayad, alinman ang nararapat. Paghahwalayin ang mga sipi ng dokumento, Resibo/Sertipiko ng Seguro at iba pa. Ibigay ang kaukulang sipi sa kliyente.	5-10 minuto	Insurance Underwriter (IU)/ Insurance Processor (IP) o Teller

Figure 51. Steps in Applying for Agricultural Insurance Cover¹⁰³



Figure 52. Steps for Filing Claim Indemnity

5.3. Non-Financial Support Services

Non-financial services for coffee players in Basilan and Sulu are provided by the coffee industry enablers which include the national government agencies (NGAs), BARMM government offices, LGUs as well as NGOs. These are all summarized in Table 92.

Table 92. Non-Financial Services and Enablers for the Coffee Industry Actors in Basilan and Sulu

ENABLER	RELEVANT MANDATE	NON-FINANCIAL SUPPORT SERVICES PROVIDED
DA- Agricultural Training Institute (ATI)	Makes available technical trainings and seminars (e.g., GAP)	<ul style="list-style-type: none"> Coffee seedlings Trainings on Farming Technology
Philippine Coconut Authority (PCA)	Promote the coconut industry's rapid, integrated development and growth in all of its facets while making sure that the coconut farmers are made direct participants in and beneficiaries of such development and growth.	<ul style="list-style-type: none"> Coffee seedlings Tractor (Basilan) Shovel and bolo Hat
Philippine Council for Agriculture and Fisheries (PCAF)	An attached agency to the DA, PCAF acts as the advisory body to the former and is principally tasked to establish nationwide network of agricultural and fishery councils to serve as the forum for consultative and continuing discussions within agriculture and fisheries sector	<ul style="list-style-type: none"> Coffee growing
BARMM GOVERNMENT AGENCIES		

<p>Ministry of Agriculture, Fisheries and Agrarian Reform (MAFAR) - High Value Crops Development Program (HVCDP) - Region, Sulu, Basilan</p>	<p>The MAFAR and its attached agencies and bureaus in the region shall play the major role in the promotion of sustainable agri-fishery growth and development, equitable land distribution and tenurial security in the Bangsamoro region.</p> <p>The HVCDP, one of its banner programs, has the following thrusts and priorities:</p> <ul style="list-style-type: none"> • Advancement of efficiency level of farm operation and management • Enhancement of productivity and production of priority commodities • Compliance with export protocols and product standard • High value crops linked to local and international markets and steady supply and prices of primary commodities. 	<ul style="list-style-type: none"> • Planting materials • Ropes and twines • Hog wire (for fencing) • Coffee processing equipment/ facilities (for Sulu alone: 6 dryers, 4 roasters, 5 processing, 20 depulpers) • Trainings on Coffee Farming Technology
<p>Ministry of Trade, Investments and Tourism (MTIT) - Region, Basilan and Sulu offices</p>	<p>Primary government agency in the BARMM that is mandated to implement laws, programs and projects on trade, investments, and tourism</p> <ul style="list-style-type: none"> • Among its bureaus are the trade and industry as well as the investment Bureaus. 	<ul style="list-style-type: none"> • Coffee seedlings • Trainings on Farming Technology/GAP, GMP, Halal certification • Beans marketing assistance • Shared service facility (SSF) • Postharvest facilities • Other technical assistance such as the creation of the Coffee Industry Cluster Development Council • Proposed crafting of an industry roadmap for Bangsamoro Coffee for 2023-2028 under its Growth Enhancement Approach towards Regional Economic Development (GEARED) Program
<p>Ministry of Science and Technology (MOST)</p>	<p>The MOST is mandated to set direction and leadership in Science, Research, Inventions, Technology Education, their Development and ensure the full and effective participation of all sectors in the Planning, Programming, Coordination and Implementation of Scientific and Technological Research</p>	<p>Training on GMP, Halal certification</p>
<p>LGUs</p>		
<p>OPAGs /OMAS (Basilan and Sulu)</p>		<ul style="list-style-type: none"> • Coffee seeds and seedlings (distributor) • Ropes and twines (distributor) • De huller • Water Hose • Solar dryer • Coffee farming technology
<p>LOCAL AND INTERNATIONAL NGOs & ODA</p>		

NFL ¹⁰⁴ (1940s – 1990s)		<ul style="list-style-type: none"> • Coffee seedlings • Fertilizers • Trainings on Farming Technology • Scholarship for coffee farmers' children (at University of Southern Mindanao Mindanao in Kabacan, North Cotabato)
ACDI/VOCA with USDA		<ul style="list-style-type: none"> • Trainings • IEC materials
JICA		<ul style="list-style-type: none"> • Coffee seedlings • De huller • Water Hose
DA-PRDP		<ul style="list-style-type: none"> • GAP brochures • Infrastructure • Enterprise capital

Source: Kills

Prior to the creation of MAFAR, the Department of Agriculture–High Value Commercial Development Program (DA-HVCDP)¹⁰⁵ provided planting materials in both Sulu and Basilan. Table_ contains information on DA-HVCDP's distribution of planting materials in Basilan and Sulu as part of its production support services. Its beneficiaries are a mix of the municipal/city LGUs, coffee associations/cooperatives, or individuals. The LGUs, through their Municipal and City Agriculture Offices, distributed the planting materials to their respective coffee farmer constituents.

Table 93. DA-HVCDP's Distribution of Planting Materials in Basilan and Sulu, 2016-2019

PROVINCE/ YEAR	Number of Coffee Seedlings	Expansion Area Covered (in ha)	Number of Beneficiaries
BASILAN			
2016	12,020	17	No data
2017	103,500	104	10 LGUs
2018	12,020	17	12 (mix of LGUs, associations, cooperatives and private individuals)
2019	0	0	0
Total			
SULU			
2016	30,636	61	11 associations and cooperatives
2017	147,364	147	79 (mix of LGUs, associations, cooperatives and private individuals)
2018	30,636	61	29 individuals
2019	147,179	153.90	64 individuals
Total			

Source of basic data: DA-HVCDP, DAF-ARMM/MAFAR

¹⁰⁴ Farmer informant from Basilan can no longer recall the full name of this NGO unfortunately.

¹⁰⁵ Farmer informant from Basilan can no longer recall the full name of this NGO unfortunately.

06

Formal and Informal Rules and Socio-Cultural Norms

6.1. Formal Rules, Regulations and Policies

6.1.1. National Laws and Department Orders

Below is a list of relevant domestic laws, including Republic Acts (RAs), Department Orders (DOs), and other policies that, in one way or another, affect the Philippine coffee industry.

Table 94. Key Legislations, Policies and Regulations Affecting the Coffee Industry in the Philippines and in BARMM

RA/DO NUMBER & YEAR	TITLE	BRIEF DESCRIPTION
RA No. 7900, 1995	High-Value Crops Development Act	<p>Establishment of High-Value Crops Development Fund (HVCDF) for the purpose of providing the funding requirements of production, marketing and processing of high-valued crops.</p> <p>Coffee is one of the high value crops in the Philippines and is entitled to the following incentives:</p> <ol style="list-style-type: none"> crop insurance through the PCIC; credit assistance to farmer’s organization/association/cooperatives; grace period on lease of government land payments; exemption from payment of tax and duties under the Cooperative Code of the Philippines (RA 6938); exemption from value-added tax in accordance with Section 103 of the National Internal Revue, as amended; exemption from taxes, fees and charges under Title One of Book Two of the Local Government Coded of 1991 in accordance with Section 133(n); market linkage for agribusiness cooperatives directly with consumers cooperatives, agro-processing companies, or exporters through the DA, in coordination with the DTI. Agro-processing firms buying directly from project proponent shall be granted tax rebates; technical support on research and extension, infrastructure development, financial and market information to be provided by the DA, DOST, CDA, state universities and colleges (SUCs) and other relevant government agencies; access to post harvest facilities, storage and distribution/transport facilities of existing government agencies; good planting materials through the DA, in coordination with state universities and colleges, the DTI and farmers organization; fiscal incentives granted by the Board of Investments (BOI).

RA No. 8435, 1997	The Agriculture and Fisheries Modernization Act (AFMA)	<p>Is geared toward “industrialization and full employment based on sound agricultural development and agrarian reform” and promotes the utilization of national resources “in the most efficient and sustainable way possible by establishing more equitable access to assets, income, basic support services and infrastructure”.</p> <p>It is directed toward the modernization of the fisheries sector by transforming it into a technology-based industry with a high degree of horizontal and vertical integration and able to compete in the global market by producing more and better value-added products.</p>
RA No. 7586, 1992	National Integrated Protected Areas System (NIPAS) Act	An act providing for the establishment and management of national integrated protected areas system, defining its scope and coverage, and for other purposes.
RA 8371, 1997	The Indigenous Peoples Rights Act	Recognizes, protects and promotes the rights of indigenous cultural communities/ indigenous peoples, creating a National Commission on Indigenous Peoples (NCIP).
RA No. 6657, 1998	Comprehensive Agrarian Reform Law (CARL)	The Comprehensive Agrarian Reform Program (CARP) of the Department of Agrarian Reform (DAR) also affects the aquaculture policy governance.
RA 6938, 1990 (as amended by RA 9250)	Cooperative Code of the Philippines	Creation and growth of cooperatives as a practical vehicle for promoting self-reliance and harnessing people power towards the attainment of economic development and social justice.
RA No. 7160, 1991	The Local Government Code (LGC)	<p>Primarily aimed at devolving the legislative powers of national government in favor of the local cities and municipalities who administer and do the actual management of their own resources.</p> <p>The LGU code is designed to implement national laws and regulations at the local levels by virtue of ordinances. They were also granted the licensing jurisdiction granted them over all fishery privileges within their territorial jurisdiction, particularly in cases of aquaculture with the use of fish pens, cages, traps, and other structures for the culture of fish and other fishery products.</p>
Executive Order No. 138	Full Devolution of Certain Functions of the Executive Branch to Local Governments, Creation of a Committee on Devolution, and for Other Purposes	<p>Consistent with Sections 3 and 17 of RA 7160, this is in pursuit of the full devolution of functions to the LGUs no later than the end of Fiscal Year 2024.</p> <p>For the DA, initiatives are now underway in jump starting the pilot testing of the Provincial Agriculture and Fisheries Extension Services (PAFES). For the BFAR, the crafting of National Fisheries Extension Plan (NFEP) is also ongoing.</p>
RA 11054	Organic Law for the Bangsamoro Autonomous Region in Muslim Mindanao	Establishes a political entity, provide for its basic structure of government in recognition of the justness and legitimacy of the cause of the Bangsamoro people and the aspirations of Muslim Filipinos and all indigenous cultural communities in the Bangsamoro Autonomous Region in Muslim Mindanao to secure their identity and posterity, allowing for meaningful self-governance within the framework of the Constitution and the national sovereignty as well as territorial integrity of the Republic of the Philippines.
RA No. 9997, 2010	An Act Creating the National Commission on Muslim Filipinos (NCMF)	Mandates the NCMF to promote and develop the Philippine halal industry and accredit halal certifying bodies (HCBs) for the benefit of Muslim Filipinos and in partnership or cooperation with appropriate agencies, individuals, and institutions here and abroad.

<p>Republic Act No. 10817, 2016</p>	<p>Philippine Halal Export Development and Promotion Act</p>	<p>Creates the Halal Export Development and Promotion Board or the Halal Board¹⁰⁶. As a policy-making body, the Halal Board sets the overall direction in the implementation of the Philippine Halal Export Development and Promotion Program.¹⁰⁷</p> <p>Also creates the Philippine Accreditation Bureau (PAB), attached to the DTI, which is in-charge of the accreditation of HCBs, inspection bodies and testing and calibration laboratories. Section 9 of RA 10817 empowers the PAB to: (a) formulate accreditation policies and guidelines which shall govern the accreditation of HCBs; and (b) grant or deny accreditation of HCBs and suspend or withdraw such accreditation in accordance with established policies and guidelines. In the formulation of accreditation policies and guidelines, and in the performance of its accreditation function, the PAB shall consult and, when necessary, collaborate with the Halal Board, its member agencies, and Halal industry stakeholders. The PAB likewise is recognized by the International Halal Accreditation Forum¹⁰⁸.</p>
<p>Republic Act No. 7394, 1992</p>	<p>Consumer Act of the Philippines</p>	<p>Enacted primarily to protect the consumers against hazards to health and safety, and against deceptive, unfair and unconscionable sales acts and practices such as false advertising.</p>
<p>Department of Health (DOH) Administrative Order No. 2014-0029</p>	<p>Rules and Regulations on the Licensing of Food Establishments and Registration of Processed Food, and other Food Products, and For Other Purposes</p>	<p>This administrative order of the DOH is intended to ensure food safety through the imposition of food quality standards in the country. It covers the issuance of permits, licenses and certificate of registration or compliance that would cover establishments, facilities engaged in packing, holding or producing of food for consumption.</p> <p>Specifically, the objectives of the AO No. 2014-0029 are:</p> <ol style="list-style-type: none"> 1. Adoption of risk-based classification of food establishments and food products as published by the UN-FAO; 2. The issuance of License to Operate (LTO) to food establishments engaged in the manufacture or processing and distribution, i.e., import, export or wholesale, or trade and repacking of processed food products; and 3. The issuance of the Certificate of Product Registration (CPR) to Food and Drug Authority (FDA)-licensed establishments before processed food and other food products are sold, offered for sale or use, distributed or supplied, among other marketing and promotional activities.
<p>DOH Administrative Order No. 153 S. 2004</p>	<p>Revised Guidelines on Current Good Manufacturing Practice in Manufacturing, Packing, Repacking, or Holding Food</p>	<p>Strengthens the food safety regulatory system in the country. Specifically, it protects the public from food-borne and water-borne illnesses and unsanitary, unwholesome, misbranded or adulterated foods; enhances industry and consumer confidence in the food regulatory system; and seeks to achieve economic growth and development by promoting fair trade practices and sound regulatory foundation for domestic and international trade.</p> <p>Generally, the Food Safety Law adopts the principle of Food Law Objectives which aims for a high level of food safety, protection of human life and health in the production and consumption of food. The law also recognizes the use of science-based risk analysis in food safety regulation and protection of consumer interests.</p> <p>In concise terms, it delineates and links the mandates and responsibilities of the government agencies involved in the process; provides mechanism for coordination and accountability in the implementation of regulatory functions; and establish policies and programs for addressing food safety hazards and developing appropriate standards and control measures; strengthens the scientific basis of the regulatory system; and upgrades the capability of farmers, fisherfolk, industries, consumers, and government personnel in ensuring food safety.</p>

106 The Halal Board is attached to the Department of Trade and Industry (DTI) with the following inter-agency composition: NCMF; Departments of Agriculture (DA); Department of Health (DOH); Department of Foreign Affairs (DFA); Department of Tourism (DOT); Department of Science and Technology (DOST); Bangko Sentral

107 Section 5 of RA 10817.

108 The International Halal Accreditation Forum (IHAF) is established as an independent, non-government network of accreditation bodies and other bodies interested in conformity assessments in the field of halal. (Reference: <https://ihaforum.ae>).

RA 9367, 2007	Biofuel Act	Includes incentives (tax, water effluents and financial assistance) to investors in enterprises that will be involved with production, distribution, and use of locally produced biofuel.
RA 9513, 2008	Renewable Energy Act	Promotes the development, utilization, and commercialization of renewable energy resources.

Source of basic data: Various NGAs website

6.1.2. International Coffee Agreements

The Philippines is likewise a signatory of the ICO International Coffee Agreement of 2007 as an exporting member-country¹⁰⁹. It benefits member countries by facilitating international trade and offering technical and financial assistance relating to coffee cultivation and processing. The agreement specifically urges the members to create and put into action plans to increase the capacity of regional communities and small-scale farmers to profit from coffee production, which can aid in the reduction of poverty.

6.1.3. Global Food Safety and Quality Management and Standards

Other important food safety and quality management standards that have an impact on the processing and trading of agricultural food products in the Philippines and vary depending on the intended market, whether local or worldwide. Among the most common are reflected in Table 95. Both small-scale and large-scale businesses are impacted by these norms, although many small-scale firms face greater obstacles as they strive to advance in the industry.

Table 95. Global Safety and Quality Management & Standards Affecting Agricultural Food Products Processing and Marketing in the Philippines

SYSTEM/ AGREEMENT	BRIEF DESCRIPTION
Good Hygienic Practices (GHP)	It is defined as all practices, conditions, and measures necessary to ensure the safety and suitability of food at all stages of the food chain. This is one of the pre-requisites to GMP, Hazard Analysis Critical Control Points (HACCP) and ISO 22000 (Food Safety Management Systems).
Good Manufacturing Practices (GMP)	Refers to procedures for a particular manufacturing operation which practitioners of, and experts in, that operation consider to be the best available using current knowledge. Requirement for both domestic and international market. It is also a set of rules or guidelines to be implemented in the fish processing plant which includes adherence to existing rules and regulations in force respecting plant construction, personnel hygiene and sanitation specific to a product that supports a company's policy and standard. GMP serves as pre-requisite program for the development and implementation of HACCP plans.
Sanitation Standard Operating Procedures (SSOP)	Consist of written procedures to be followed to ensure that the processing and production of a certain product are carried out under sanitary and hygienic conditions.
Hazard Analysis Critical Control Points (HACCP)	It is an internationally recognized food safety methodology which provides the framework for hazard (biological, chemical and physical) identification and control. It is a preventive system to correct problems before they affect the quality and safety of the food products that people consume. GMP and SSOP compliance are among its pre-requisites.
ISO 22000:2018, Food safety management systems	These are sets of requirements for a food safety management system where it defines what an organization must do to demonstrate its ability to control food safety hazards and ensure that food is safe for consumption. It covers the values and principles of ISO 9000 and the HACCP standards.
Codex Alimentarius "Food Code"	Global in scope, it is a collection of standards, guidelines and codes of practice related to food, food production, food labeling, and food safety adopted by the Codex Alimentarius Commission (CAC) and published by the FAO. The CAC is the central part of the joint FAO/WHO Food Standards Programme and was established by FAO and WHO to protect consumer health and promote fair practices in food trade.

109 Source: International Coffee Agreement 2007

World Trade Organization's Sanitary and Phytosanitary (WTO-SPS) Agreement	Concerns the application of food safety and animal and plant health regulations.
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Source: UN FAO – Philippines

6.1.4. National Standards

The DOH-FDA is another regulatory agency in the Philippines which is “mandated to ensure the safety, efficacy or quality of health products which include food, drugs, cosmetics, devices, biologicals, vaccines, in-vitro diagnostic reagents, radiation-emitting devices or equipment, and household/urban hazardous substances, including pesticides and toys, or consumer products that may have an effect on health which require regulations as determined by the FDA”¹¹⁰. A License to Operate (LTO) from this office is required for establishments engaged in the manufacture, packaging, repackaging, importation, exportation, distribution, and retail of the same products. Before a product may be registered and a Certificate of Product Registration (CPR) can be issued, an LTO is also necessary. The issuance of an LTO and CPR for food establishments are covered by DOH Administrative Order 2014-0029 “Rules and Regulations on the Licensing of Food Establishments and Registration of Processed Food, and Other Food Products...”¹¹¹ ”

Meanwhile, there are also several food safety and quality management standards that cover agricultural and fisheries food products, including coffee, both at the local and global level. The list of Philippine National Standards (PNS) for coffee and coffee products as developed by the Philippine Bureau of Agriculture and Fisheries Standards (BAFS), formerly the Bureau of Agriculture and Fisheries Products Standards (BAFPS) is summarized in Table 96¹¹². One of BAFS’ mandate is to formulate and enforce standards of quality in the processing, preservation, packaging, labelling, importation, exportation, distribution, and advertising of agricultural and fisheries products.

Table 96. List of Philippine National Standards for Coffee and Coffee Products, as of October 2023

NO.	PNS/BAFPS NUMBER & YEAR	DESCRIPTION
1	PNS/BAFS 342: 2022	Green Coffee Bean Sorter - Methods of Test
2	PNS/BAFS 341:2022	Green Coffee Bean Sorter — Specifications
3	PNS/BAFS 169:2015	Good of Agricultural Practices (GAP) for Coffee
4	PNS/BAFS 170:2015	Code of Practice for the Prevention and Reduction of Ochratoxin Contamination in Coffee
5	PNS/BAFS 188:2016	Agricultural Machinery – Coffee Grinder – Specification
6	PNS/BAFS 189:2016	Agricultural Machinery – Coffee Grinder – Methods of Test
7	PNS/BAFS 212:2017	Agricultural Machinery – Coffee Huller – Specification
8	PNS/BAFS 213:2017	Agricultural Machinery – Coffee Huller – Methods of Test
9	PNS/BAFS 214: 2017	Agricultural Machinery – Coffee Roaster – Specification
10	PNS/BAFS 215:2017	Agricultural Machinery – Coffee Roaster – Methods of Test
11	PNS/BAFS 01:2012	Green Coffee Beans – Specifications

Source of basic data: BAFS

6.1.5. Local Sanitation Ordinances

The LGUs are tasked with overseeing and regulating the food industry, including processing facilities, among their local constituents by issuing sanitary licenses and worker health certificates, among other things. The Philippine Sanitation Code, established by Presidential Decree No. 856 of 1975, specifies sanitation standards for food establishments as well as a system for collecting and disposing of waste. The regulatory power of LGUs in this aspect is implemented in line with the regulatory power of DOH-FDA.

6.2. Informal Rules and Socio-Cultural Norms

The Tausugs of Sulu believe that coffee was brought and introduced to them by their ancestor Muslim missionaries.

Traditional cultivation practices in coffee farming include planting coffee under the shade of trees and avoiding

¹¹⁰ <https://www.fda.gov.ph/about-fda/>

¹¹¹ A copy of which can be viewed at <https://www.fda.gov.ph/wp-content/uploads/2021/03/Administrative-Order-No.-2014-0029.pdf>

¹¹² Copies of each PNS can be accessed at this website – https://bafs.da.gov.ph/page/pns_catalogue.

the use of synthetic fertilizers. Shade grown coffee produces the maximum carbon absorption per hectare, hence lowering greenhouse gases, which have been proved to contribute to global warming¹¹³.

Given the unique cultural and religious orientation in Sulu, most of the undertakings are family-level/family oriented. The coffee associations/cooperatives consisted mostly of family members and relatives who also did their share in the work on the farm.

Unlike other areas in Mindanao where there are big coffee farms and coffee plantations, most of the coffee trees in Sulu are intercrops and backyard in scale. Coffee trees and even other crops are mostly “organic by neglect”.

Coffee plays an integral role of the Tausug and Yakan culture too. The local coffee shops in Sulu serve as convergence venues for the locals to hear from each other.

113 Chavez (2012).

07

Constraints/ Opportunities and Interventions

From existing relevant documents such as the Sulu PCIP 2020-2023 and the PRDP Mindanao VCA for Coffee as well as from primary data gathered through KIIs with different players of the coffee VC, Table 97 summarizes the identified constraints and opportunities, suggested interventions, and responsible entities per segment of coffee VC in Basilan and Sulu. Concerns that cut across two or more segments of the VC are clustered under the Enabling Environment category. It pertains to the need for training and capacity building activities, financing, policies, research and development, knowledge management, and gender and other marginalized sectors roles, among others.



Coffee tasting during the coffee validation workshop in Basilan

VC SEGMENT	CONSTRAINT/OPPORTUNITY	RECOMMENDED INTERVENTION	APPLICABLE AREA	WHO CAN DO IT
Input Supply	<ul style="list-style-type: none"> Limited access to locally available high quality and disease-resistant planting materials due to: Unaccredited community-based nurseries do not comply with protocols. No BPI-accredited nursery in the province (planting materials distributed by government came from BPI-accredited nurseries in mainland Mindanao or Luzon) High mortality rate and loss due to mishandling of planting materials and seedlings during transportation and distribution <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> Availability of seedlings and farm input distribution projects and programs from government and NGOs Presence of coop-owned nurseries though not yet BPI-accredited (e.g., SCARBIDC in Basilan, KCC in Sulu) 	<ul style="list-style-type: none"> Facilitate accreditation with the DA-BPI of at least one (1) nursery in each province. Support establishment of more accredited private nurseries Facilitate farmers access to preferred varieties (e.g., Basilan farmers specifically requested for Excelsa variety as it more apt for warmer temperatures) as well as to disease and pest resistant coffee varieties. Conduct of trainings on nursery operation and management, proper handling, and acclimatization of seedlings during delivery and distribution Conduct further research on preferred and 	Basilan, Sulu	<p><u>Public</u> DA-BPI, DA-ATI, DA-BAR, LGU-OPAG and OMAS, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, MOST, SUCs, Research and development institutions (RDIs), Government financing institutions (GFIs)</p> <p><u>Private</u> Nursery operators, Individual coffee farmers, Coffee cooperatives, NGOs, ODA, Private financing institutions</p>
	<ul style="list-style-type: none"> Some planting materials distributed by the government are still of low quality. issues on availability of true to type planting materials for different varieties especially for Arabica, Liberica and Excelsa as the distributed planting materials turned out to be other varieties than what was declared during seedling distribution <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> Availability of technology on QR-based tagging of coffee seedlings indicating nursery source, variety and clone, and details on inspection 	<ul style="list-style-type: none"> Maximize the use of tagging technology. Promote procurement and purchase of coffee seedlings with QR tags from accredited coffee nurseries 	Basilan, Sulu	<p><u>Public</u> MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS</p> <p><u>Private</u> Nursery operators, Individual coffee farmers, Coffee cooperatives</p>
	<ul style="list-style-type: none"> High cost of fertilizers ✓ Limited supply of organic fertilizer appropriate for coffee farming ✓ Some farmers in ulu reported poor soil quality and decreasing soil fertility. <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> Availability of technology on integrated nutrient management (i.e., use agricultural waste products and other indigenous materials that can be used as fertilizer) 	<ul style="list-style-type: none"> Conduct of trainings on: adoption of integrated nutrient management technology organic matter management, and/or production of "organic" fertilizers, vermi compost, etc. Facilitate access to financing and credit 	Basilan, Sulu	<p><u>Public</u> ATI, LGU-OPAG and OMAS, MAFAR-HVCDP, GFIs</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA, Private financing institutions</p>

	<ul style="list-style-type: none"> • Lack of/Limited access to other farm inputs, implements and modern farm tools and equipment (e.g., tractors) and corresponding training for usage. • Not all farmers have access to concerned government agencies. <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> • Availability of modern farm equipment and implements • Presence of enablers (e.g., NGAs, NGOs) that provide farm inputs and implements for free. • Presence of coffee farmer groups such as cooperatives 	<ul style="list-style-type: none"> • Assist small farmers to have access to farm inputs and tools/equipment/implements (e.g., hand tractors, gasoline powered grass cutter, chainsaw for removal of old trees, etc.) • Link farmers to enablers providing farm inputs and farm implements. ✓ Tractors and other big farm equipment maybe provided to farmer groups and be operated as a common service facility (CSF) • Introduce modern farming equipment to coffee farmers. • Provide training on usage of modern farming equipment. • Facilitate access to financing and credit 	Basilan, Sulu	<p><u>Public</u> Philippine Center for Postharvest Development and Mechanization (PhilMec), MAFAR at all levels, LGU-OPAG and OMAS, MOST, GFIs</p> <p><u>Private</u> Local farm machines suppliers and fabricators, Individual coffee farmers, Coffee cooperatives, NGOs, ODA, Private financing institutions</p>
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<p>Farming</p>	<ul style="list-style-type: none"> Declining coffee production and productivity in Basilan (-2% AAGR during the last seven years based on PSA data though statements from concerned VC players indicate a much higher decline) and unmaximized production potentials in Sulu (only 0.05% AAGR during the same period). ✓ Limited technical know-how on sustainable coffee farming ✓ Non-familiarity and low application of Good Agriculture Practices (GAP) by coffee farmers (non-practice of pruning, non-rejuvenation of coffee trees, old coffee trees were not rehabilitated and rejuvenated especially in Basilan, immoderate diversification) ✓ Crop and land conversion (PSA data reveals reduction in area and tree density with AAGR of -0.28% and -0.51% during the last seven years in Basilan which could be even higher in actual as well as -0.004% and -0.08% in Sulu, respectively) When coffee farmers in Basilan don't know how to rehabilitate old and senile coffee trees and buying prices are low, some farmers cut down their coffee trees and change to other crops such as rubber ✓ Very limited access of small coffee farmers to modern coffee farming technologies ✓ Poor farm planning <p><u>Opportunity</u></p> <ul style="list-style-type: none"> Availability of Philippine National Standards for Coffee (i.e., Philippine Coffee GAP) Availability of IEC materials such as coffee production booklets, charts, and video instructional materials. Availability of coffee model farms in other parts of Mindanao that practice sustainable and even organic coffee farming (e.g., Bukidnon) Availability of "coffee mentors" training approach (e.g., ACIDI/VOCA) where farmer leaders are trained to be trainers to other farmers 	<ul style="list-style-type: none"> Provide additional trainings on coffee GAP to cover all farmers including via the "coffee mentors" approach Enhance IEC activities to enhance awareness on the benefits of practicing coffee GAP Learning site visits to model farms practicing coffee GAP Provide financial and technical assistance to enable farmers to apply their learnings from coffee GAP trainings in their farms. 	<p>Basilan, Sulu</p>	<p><u>Public</u> DA-ATI, BAFS, MTIT, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, Model coffee farms, NGOs, ODA, Private financing institutions</p>
	<ul style="list-style-type: none"> Despite some farms claiming to practice coffee GAP, there are no GAP certified farms in both provinces. ✓ Some farmers cited the absence of a GAP certified body in their province as the reason. <p><u>Opportunity</u></p> <ul style="list-style-type: none"> DA has already established processes and made the certification accessible at the RFO levels. GAP certification is free of charge 	<ul style="list-style-type: none"> Strengthen IEC on gap certification process, eligibility, requirements, etc. Link farmers practicing GAP to GAP certifying body 	<p>Basilan, Sulu</p>	<p><u>Public</u> BAFS, MAFAR Regional Regulatory Division, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA, Private financing institutions</p>

	<ul style="list-style-type: none"> Lack of irrigation infrastructure and support services and/or limited water source during dry season 	<ul style="list-style-type: none"> Link farmers to sufficient irrigation infrastructure and techniques for their coffee farms Installation of small-scale irrigation system (Shallow Tube Well) Promote rain harvesting technology and facilitate access to necessary technical and financial support. 	Basilan, Sulu	<p><u>Public</u> NIA, MAFAR, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA</p>
	<ul style="list-style-type: none"> Occurrence of coffee pests & diseases (e.g., leaf spot, scooty molds, aphids during rainy season) "Cocolisap" infestation in Basilan pushed farmers to cut down infected coconut trees destroying the coffee trees in the process too as the fallen coconut trees fell on the former <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> Availability of technology on integrated pest and disease management or IPDM (e.g., use of non-toxic fungus Beauveria bassina to control coffee pod borer infestation, aphids, etc.) 	<ul style="list-style-type: none"> Pest & disease surveillance/ monitoring and management for coffee (and coconut in Basilan) Access to disease resistant coffee varieties Train more farmers on IPDM More IEC on adoption of IPDM 	Basilan, Sulu	<p><u>Public</u> DA-ATI, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA</p>
	<ul style="list-style-type: none"> No climate mitigation measures implemented (unpredictable weather condition affects farm productivity and income) Lack of financial and technical capacity to adopt climate proofing strategies. <p><u>Opportunity</u></p> <ul style="list-style-type: none"> Basilan and Sulu are relatively safe to the threats of the predicted temperature rise compared to the other coffee producing provinces in mainland Mindanao 	<ul style="list-style-type: none"> Promotion of climate-smart agriculture technologies designed for coffee production. ✓ IEC activities ✓ Trainings Promote other climate proofing strategies (I.e., crop insurance, rainwater harvesting) Facilitate access to financing. 	Basilan, Sulu	<p><u>Public</u> DA-ATI, DA-BAR, PCIC, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA, Private financing institutions</p>
	<ul style="list-style-type: none"> Stray animals destroy coffee plants. <p><u>Opportunity</u></p> <ul style="list-style-type: none"> Presence of enablers that provide free access to animal wires (e.g., LGU) 	<ul style="list-style-type: none"> Access to fencing materials such as animal wires 	Sulu	<p><u>Public</u> MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA, Private financing institutions</p>
	<ul style="list-style-type: none"> Declining interest among coffee farmers whenever buying prices become extremely low 	<ul style="list-style-type: none"> Continuously educate coffee farmers, through IEC activities, on the benefits of reviving the coffee industry in the island More value-adding activities 	Basilan	<p><u>Public</u> DA-ATI, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA</p>

	<ul style="list-style-type: none"> Some farmers are still not practicing the “pick red” harvest method due to low awareness on its impact to quality of beans and/or security threats (in the case of Sulu) <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> Philippine National Standards for Coffee Products 	<ul style="list-style-type: none"> Regular conduct of trainings and re-training on good postharvest handling 	Basilan, Sulu	<p><u>Public</u> DA-ATI, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA</p>
	<ul style="list-style-type: none"> Non-availment of crop insurance due to: ✓ Many farmers are not informed of its availability (no PCIC office in BASULTA, earest office is PCIC Field Office 9). ✓ Some farmers perceived the requirements to be cumbersome. • • <u>Opportunity:</u> Insurance application, submission and approval can be all done online 	<ul style="list-style-type: none"> Information drive on free crop insurance for small farmers and its requirements 	Basilan, Sulu	<p><u>Public</u> PCIC, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers, Coffee cooperatives, NGOs, ODA</p>
Postharvest and Processing	<ul style="list-style-type: none"> Limited access to modern postharvest and processing materials/ equipment/ machineries/facilities ✓ Many are still using the traditional method • <u>Opportunity:</u> Presence of enablers that assist coffee farmers and processors 	<ul style="list-style-type: none"> Facilitate access to modern postharvest facilities & processing equipment near production sites (all-weather/solar dryer, warehouse, de-pulper, dehuller, roasting machine) • Promote common shared facilities for postharvest handling and processing • Provide corresponding hands-on training on the operation of modern processing equipment and facilities 	Basilan, Sulu	<p><u>Public</u> MTIT, MOST, PhilMec, ATI, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee processor groups, Modern processing equipment suppliers, NGOs, ODA</p>
	<ul style="list-style-type: none"> Low quality of GCB from some local sources ✓ Limited technical and financial capacity of small farmers on the correct harvest, postharvest and processing techniques and process (i.e., picking, fermentation, drying, sorting, etc.) • • <u>Opportunity</u> ✓ Government financing institutions or GFIs and private lending institutions (i.e., Landbank of the Philippines, cooperatives, microfinance, etc.) 	<ul style="list-style-type: none"> Conduct of training on postharvest technologies and processes (i.e., coffee fermenting, depulping, drying, GCB sorting, sensory analysis, coffee cupping, etc.) • Production/Re-production and distribution of corresponding IEC materials • Assist coffee farmer groups such as cooperatives to access enough capital as start-up to buy the red cherry beans from its members and for the cooperative to perform the postharvest process to achieve better and uniform quality of GCB as well as consolidate volume during trading. 	Basilan, Sulu	<p><u>Public</u> ATI, MTIT, MAFAR, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Coffee processor groups, Coffee cooperatives, Private financing institutions, NGOs, ODA</p>

<ul style="list-style-type: none"> Limited supply of coffee beans as raw material for processing ✓ Some processors source out their raw materials from as far as Bukidnon, Lanao del Sur, and Cotabato ✓ One processor slowed down while another exit from the coffee processing business • <u>Opportunities</u> • Presence of enablers providing different support services, technical or financial, to coffee VC actors 	<ul style="list-style-type: none"> • Continuous facilitation/assistance for coffee farmers to increase production and productivity 	Basilan	<p><u>Public</u> DA-ATI, MAFAR-HVCDP, MTIT, PhilMec, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers and processors, Coffee cooperatives, Model coffee farms, NGOs, ODA, Private financing institutions</p>
<ul style="list-style-type: none"> • Insufficient supply of electricity and water for processing 	<ul style="list-style-type: none"> • Promote renewable energy utilization (e.g., solar via solar panel modules, etc.) • Advance notice in case of scheduled power interruptions 	Basilan, Sulu	<p><u>Public</u> MENRE, MTIT, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Utility companies and investors, NGOs, ODA</p>
<ul style="list-style-type: none"> • Some processors especially the small ones are not yet GMP compliant ✓ Limited capacities as well as knowledge and skills among small processors and processing workers on GMP • <u>Opportunity:</u> • Philippine National Standards for Coffee Products • GMP standards are already in place 	<ul style="list-style-type: none"> • Train more processing workers on GMP and other food-related processing training courses (e.g., roasting competency, barista training, etc.) • Assist processors to be GMP compliant by upgrading existing or building new GMP compliant facilities 	Basilan, Sulu	<p><u>Public</u> BAFS, TESDA, MTIT, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS</p> <p><u>Private</u> Individual coffee processors, Coffee cooperatives, Coffee shop owners, NGOs, ODA</p>
<ul style="list-style-type: none"> • Absence of FDA-LTO registration and compliance with other market standards and certifications (e.g., halal, fair-trade, organic, etc.) delimiting command for better price and wider market access including institutional buyers and export • <u>Opportunity:</u> • Presence of enablers providing technical and financial assistance • Presence of Halal certifying bodies within BARMM 	<ul style="list-style-type: none"> • Provide assistance, technical and/or financial, especially among small processors for compliance to certifications and other market standards to: (1) enable marketing of products to more institutional buyers such as supermarkets and mall; and (2) command better prices ✓ Close handholding especially among small players until they get registered and/or certified • Conduct capacity building activities to prepare processors on processing audit and other monitoring-related protocols toward traceability and certifications 	Basilan, Sulu	<p><u>Public</u> DA, BFAD, NCMF, MTIT, MAFAR-HVCDP, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee processors, Coffee cooperatives, HCBs, Accredited testing laboratories, NGOs, ODA, Private financing institutions</p>
<ul style="list-style-type: none"> • Lack of proper packaging and labeling among small and start-up processors 	<ul style="list-style-type: none"> • Conduct trainings on product packaging and labeling ✓ Following the standards (i.e., labels should reflect variety, nutrient contents, etc.) • Facilitate access to necessary financial resources 	Basilan, Sulu	<p><u>Public</u> MOST, MTIT, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee processors, Coffee cooperatives, NGOs, ODA, Private financing institutions</p>

	<ul style="list-style-type: none"> Limited utilization of coffee wastes and “excess” for food and non-food products 	<ul style="list-style-type: none"> Tap academe and research partners on the conduct of research for the utilization of wastes and by-products 	Basilan, Sulu	<p><u>Public</u> DA-BAR, SUCs, RDIs MOST, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS</p> <p><u>Private</u> Private HEIs, Individual coffee processors, Coffee cooperatives, NGOs, ODA</p>
Marketing/ Trading	<ul style="list-style-type: none"> Limited market access ✓ Small holders and even local associations and cooperatives in Sulu have no direct access to bigger markets and corporate buyers ✓ Coffee products that reached other countries are not via the formal trading channels yet but as pasalubong items only <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> Availability of online platform / e- commerce (i.e., Shopee, Lazada, facebook marketplace, tiktok, etc.) Presence of Coffee Council and Federation Availability of private institutions, NGOs such as ACDI/VOCA-PhilCafe, coffee enthusiasts’ groups such as Philippine Coffee Guild with considerable Mindanao-based number of members organizing different coffee advancement and market promotion activities 	<ul style="list-style-type: none"> Facilitate direct access/trading partnerships to big and corporate buyers/processors such as Nestle without passing through other middlemen or consolidators ✓ Via coffee cooperatives and the coffee federation/ councils Assist small holders to maximize online platforms Strengthen marketing and promotion of local coffee products both to local and export markets thru the conduct of the following: <ul style="list-style-type: none"> ✓ business matching activities ✓ participation to coffee trade fairs, exhibits, fora and congress ✓ marketing and promotion trainings 	Basilan, Sulu	<p><u>Public</u> MTIT, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee farmers, Coffee processors, coffee traders, Coffee Cooperatives, Coffee Council and Federation, Corporate buyers, NGOs, ODA, Philippine Coffee Guild</p>
	<ul style="list-style-type: none"> Non-transparency of prices between buyers and farmers due to: ✓ Lack of periodic coffee bean grading as one of the bases for pricing and trading ✓ No clear GCB buying system and guidelines in place ✓ Non-conformity and contrasting perception on existing quality standards for coffee between farmers and traders/buyers which often results to price disagreement ✓ No institutional market information source resulting to low and/or variable buying price . Note: Volatile prices, particularly the prolonged low buying prices in Basilan in the past discouraged many coffee farmers that they shifted to other crops like rubber. <p><u>Opportunity</u></p> <ul style="list-style-type: none"> Availability of certified Robusta and Arabica Q-graders based in Mindanao, from private, to conduct coffee beans grading officially 	<ul style="list-style-type: none"> Conduct of trainings on coffee bean grading and cupping to a wider audience Regular conduct of coffee bean grading on coffee farmers’ GCB to assess quality and recommendations can be formulated Encourage direct trade partnerships between coffee producers and buyers/processors Establish institutional source of market information Explore possibility of institutionalizing marketing agreements among producers and buyers that would include “pricing matrix” and specs depending on quality/ quantity of coffee for certain period which will be coupled with regular monitoring and assistance from LGUs, MTIT and other enablers 	Basilan, Sulu	<p><u>Public</u> MTIT, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee farmers, Coffee traders, Coffee buyers (processors and corporate buyers) Coffee Cooperatives, Coffee Council and Federation, Coffee, Q-graders, NGOs, ODA</p>

	<ul style="list-style-type: none"> • Presence of many middlemen traders who control price (low buying price) ✓ Middlemen traders are earning more than that of the farmers 	<ul style="list-style-type: none"> • Paradigm shift in the mindset of farmers that they also have the potential to be traders • Encourage farmers to do more value adding (those who don't have the current technical and financial capacity can do so via their affiliated cooperatives) rather than as mere raw material supplier • Encourage direct trade partnerships between coffee producers and buyers/processors 	Basilan, Sulu	<p><u>Public</u> MTIT, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee farmers, Coffee Cooperatives, NGOs, ODA</p>
<p>Poor coffee beans (dried and GCB) quality sold in the market (more concern in Sulu)</p> <p>Resulting to low buying price as traders are hesitant to buy poor quality produce</p> <p><u>Opportunity</u> Regular conduct of Philippines Coffee Quality Competition (PCQC) Enabling policies and standards for coffee products are in place (e.g., PNS/BAFS on Philippine Coffee GAP, PNS for GCB, and Agricultural Machinery for Coffee Processing etc.)</p>		<ul style="list-style-type: none"> • Conduct of trainings and re-trainings on good postharvest practices and technologies • Facilitate access to improved and modern postharvest equipment and technologies • Strengthen coffee marketing system ✓ Requires strong government and private agencies collaboration backed-up by appropriate policies • Support and facilitate participation of qualified coffee players to the PCQC to further increased awareness on better quality coffee beans 	Basilan, Sulu	<p><u>Public</u> ATI, MTIT, MAFAR, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Coffee farmers, Coffee processors, Coffee cooperatives, Private financing institutions, NGOs, ODA</p>
<ul style="list-style-type: none"> • Traders face limited supply of coffee beans <p><u>Opportunities</u></p> <ul style="list-style-type: none"> • Presence of enablers providing different support services, technical or financial, to coffee VC actors 		<ul style="list-style-type: none"> • Continuous assistance for coffee farmers to increase productivity 	Basilan	<p><u>Public</u> DA-ATI, MAFAR-HVCDP, MTIT, PhilMec, MAFAR Provincial and Municipal Offices, LGU-OPAG and OMAS, GFIs</p> <p><u>Private</u> Individual coffee farmers and processors, Coffee cooperatives, Model coffee farms, NGOs, ODA, Private financing institutions</p>
<ul style="list-style-type: none"> • High transportation cost 		<ul style="list-style-type: none"> • Adopt product consolidation for economies of scale 	Sulu	<p><u>Public</u> MAFAR, MTIT, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee private sector groups including associations and cooperatives</p>
<p><u>Opportunity</u></p> <ul style="list-style-type: none"> • Good reputation of Sulu's single origin Robusta coffee 		<ul style="list-style-type: none"> • Capitalized on this as one the unique selling proposition (USP) in marketing the coffee products of Sulu and Basilan • Encourage more value adding activities especially among farmers via their cooperatives and associations 	Basilan, Sulu	<p><u>Public</u> MAFAR, MTIT, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee private sector groups including farmers, processors and associations and cooperatives, NGOs, ODA</p>

<p>Enabling Environment</p>	<ul style="list-style-type: none"> • Varying degree of technical capacities among individual coffee farmers and organizational maturity among coffee farmer groups and other coffee VC groups ✓ Groups in their infancy stage lack organizational capacities. ✓ Well-established groups still need regular training and re-training. <p><u>Opportunities</u></p> <ul style="list-style-type: none"> • Presence of enablers providing different support services, technical and/or financial, to coffee VC actors ✓ LGUs and government agencies (e.g., MAFAR, MTIT, DA, DTI, PCA, etc.) ✓ Government financing institutions or GFIs and private lending institutions (i.e., Landbank of the Philippines, cooperatives, microfinance, etc.) ✓ International non-government organizations (i-NGOs) and/or official development assistance or ODA (i.e., WB, EU, Oxfam, UNIDO, UNDP, IOM, ACDI/VOCA etc.) 	<ul style="list-style-type: none"> • Continuous/Regular capacity building activities and trainings, including Training of Trainers (TOT), on any of the following as needed: <ul style="list-style-type: none"> ✓ GAP on coffee ✓ Organic coffee farming ✓ Nursery management ✓ Pest and disease management ✓ Processing (roasting) ✓ GMP ✓ Packaging and labeling ✓ Coffee farming and processing machine and equipment maintenance (mechanics) ✓ Marketing ✓ Barista for coffee shops ✓ Cooperative management ✓ Leadership ✓ Organizational diagnosis ✓ Financial management ✓ Record keeping ✓ Basic bookkeeping ✓ Basic accounting ✓ Basic project proposal making ✓ Feasibility studies ✓ Certifications (e.g., BFAD-LTO, FDA, halal, organic, etc.) • Aside from trainings, provide close mentoring and handholding until enterprise is registered/accredited/certified ✓ If it's possible for MOST and MTIT to provide extension workers who are capable in providing technical for compliance of requirements until registration/ accreditation is completed • Facilitate linkage of coffee VC players to enablers that provide necessary assistance • Explore "big brother – small brother" linking between and among more developed groups and the those in their infancy stage of organizational development 	<p>Sulu, Basilan</p>	<p><u>Public</u> CDA, DA, ATI, BAFS, BPI, BFAD, GFIs, SUCs, RDIs, PCA, MOST, MTIT, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee private sector groups including farmers, processors and associations and cooperatives, NGOs, ODA, Private financing groups, HCBs and other certifying bodies, Private HEIs</p>
	<ul style="list-style-type: none"> • No coffee technicians 	<ul style="list-style-type: none"> • Deployment of agriculture extension workers (AEWs) specifically coffee technicians • Conduct of TOTs 	<p>Basilan</p>	<p><u>Public</u> MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Farmer groups, Coffee mentors, Cooperatives, Federation and Council</p>
	<ul style="list-style-type: none"> • Not all farmers are RSBSA registered yet constraining them to avail of assistance such as the free crop insurance for small farmers 	<ul style="list-style-type: none"> • More information awareness on RSBSA • Facilitate RSBSA registration expansion 	<p>Basilan, Sulu</p>	<p><u>Public</u> DA, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee VC players</p>

<ul style="list-style-type: none"> Coffee industry data gaps at the provincial level ✓ Limited and/or inaccurate data on suitability, production volume per variety, number of coffee farmers (no disaggregation per municipality, by sex, by vulnerability group) and coffee associations/cooperatives, production and processing capacities, among others ✓ Inconsistent data between and among the PSA viz MAFAR viz OPAG ✓ Institutional constraints faced by concerned BARMM agencies and LGUs due to lack of manpower; transition from the Autonomous Region for Muslim Mindanao or ARMM to BARMM; change in agency set-up as the MAFAR now is a fusion of two agencies (Department of Agriculture and Fisheries or DAF Department of Agrarian Reform or DAR); total replacement of staff from ARMM to BARMM <u>Opportunity:</u> New tools available like color-coded maps, Climate Resiliency and Vulnerability Assessment (CRVA)⁹ of DA, landscaping program of DA, food consumption and quantification project Best practices on private-public sector partnership on systematic and digitized data gathering in other parts of Mindanao and the country 	<ul style="list-style-type: none"> Building on from the results of this coffee VC assessment, conduct comprehensive mapping and profiling of the coffee industry at the provincial level (e.g., production per variety; census of coffee farmers, coffee processors, and traders; coffee suitability and expansion areas; production capacities, etc.) ✓ Convergence effort between and among enablers (LGU, NGAs, NGOs, academe and private sector) including the triangulation of data as basis for development planning, investment programming, and monitoring and evaluation Digitalize coffee profiling 	Basilan, Sulu	<p><u>Public</u> DA, PSA, MTIT, MAFAR, LGU-OPAG and OMAS, SUCs</p> <p><u>Private</u> Coffee private sector groups including farmers, processors and associations and cooperatives, NGOs, ODA, Private HEIs</p>
<ul style="list-style-type: none"> Absence of a Management Information System in the coffee industry. 	<ul style="list-style-type: none"> Putting up of a digitalized information management system for coffee that is regularly updated and maintained ✓ Awareness of price, demand & supply 	Basilan, Sulu	<p><u>Public</u> DA, PSA, MTIT, MAFAR, LGU-OPAG and OMAS, SUCs</p> <p><u>Private</u> Coffee private sector groups including farmers, processors, and associations and cooperatives, NGOs, ODA, Private HEIs</p>
<ul style="list-style-type: none"> Limited access to financing (small coffee VC players have limited financial capacities amidst rising cost of farm inputs and implements as well as other processing materials and equipment) Some VC players are of the perception that it is difficult and cumbersome to access formal banking institutions such as Landbank due to numerous eligibility criteria and requirements as well as long processing period. Coffee VC players not aware of presence of Islamic financing through AAIBP in Sulu VC players especially farmers are not aware of available Islamic financing in the area <p><u>Opportunity</u></p> <ul style="list-style-type: none"> Internal value chain financing among coffee players like cooperatives and processors (credit provision to coffee farmers from input suppliers or buyers) Presence of GFIs and private lending institutions (i.e., Landbank of the Philippines, cooperatives, microfinance groups, etc.) 	<ul style="list-style-type: none"> Facilitate access to financing (e.g., loans, grants, aids, etc.) / Link small VC players to financing institutions including Islamic Financing ✓ Strengthen IEC activities on availability of regular, microfinancing and Islamic financing windows in the area ✓ Capacitate VC players especially farmers on how to comply requirements Promote usage of common shared service facilities (CSSF) 	Basilan, Sulu	<p><u>Public</u> GFIs, MTIT, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Private financing groups, Coffee private sector groups including farmers, processors and associations and cooperatives, NGOs, ODA,</p>

	<ul style="list-style-type: none"> No accredited SUCs as “coffee academy” to offer Coffee Production NC II Program from TESDA <p><u>Opportunity:</u></p> <ul style="list-style-type: none"> Presence of Mindanao State University (MSU) Jolo 	<ul style="list-style-type: none"> Tie up with existing SUCs such as MSU Jolo 	Sulu	<p><u>Public</u> TESDA, MAFAR, MOST, LGU-OPAG and OMAS, MSU Jolo</p> <p><u>Private</u> Coffee private sector groups including farmers, processors and associations and cooperatives, Council and Federation</p>
	<ul style="list-style-type: none"> Limited, if not absence, of R&D for coffee in Basilan and Sulu <p><u>Opportunity</u></p> <ul style="list-style-type: none"> Availability of existing research and collaboration with private sector, academe and other enablers for the advancement of coffee industry (i.e., between and among Nestle Phil, ACADI/VOCA, and academic institutions such as the Sultan Kudarat State University in Sultan Kudarat, Davao del Sur State College in Davao del Sur, and Central Mindanao University in Bukidnon, etc.) 	<ul style="list-style-type: none"> Conduct documentation study/ Research of coffee production in Sulu ✓ Tap academe and other research institutes Establish network and partnership with other RDIs, SUCs and other private HEIs which has existing related studies and researches on coffee for collaborative undertakings: ✓ existing cupping laboratories ✓ research centers 	Basilan, Sulu	<p><u>Public</u> DA-BAR, MAFAR, MOST, LGU-OPAG and OMAS, SUCs, RDIs</p> <p><u>Private</u> Private sector RDIs and HEIs, ODA</p>
	<ul style="list-style-type: none"> Traditional gender role biases and discrimination ✓ Limited opportunities to education, training, finance, technology and markets among women and the youth 	<ul style="list-style-type: none"> ✓ Conscious effort of integrating and mainstreaming the needs and providing equal opportunities and chances for meaningful participation of IPs/ethnic groups, women, children, the youth and even the PWDs in all aspects related to coffee farming, processing, and trading/marketing. ✓ Education/training ✓ Financing ✓ Technology ✓ Market ✓ Business and development processes (e.g., planning, project identification, implementation, monitoring and evaluation) 	Basilan, Sulu	<p><u>Public</u> CDA, DA, ATI, BAFS, BPI, BFAD, PCA, GFIs, SUCs, RDIs, MOST, MTIT, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> HCBs and other certifying bodies, Coffee private sector groups including farmers, processors and associations and cooperatives, NGOs, ODA, Private financing groups, Private HEIs</p>
	<ul style="list-style-type: none"> Difficulty of access and social exclusion among PWDs ✓ Lack of accessible pathways and specialized equipment that are PWD-friendly on farms and during processing 	<ul style="list-style-type: none"> Consider physical limitations and needs of PWDs when designing facilities and distribution of assistance 	Basilan, Sulu	<p><u>Public</u> MTIT, MAFAR, LGU-OPAG and OMAS</p> <p><u>Private</u> Coffee VC players, NGOs, ODA</p>
	<ul style="list-style-type: none"> Weak interfirm relations especially in Sulu among the different coffee VC players across different levels or segments in the chain. ✓ While individual farmers have strong relationships among themselves, there is an apparent disconnect between them and the individual traders and processors. 	<ul style="list-style-type: none"> Strengthen convergence platforms (e.g., Basilan Coffee Industry Cluster Council, Federation of Sulu Coffee Producers Cooperative) Organize activities for coffee farmers, traders and processors to meet and discuss concerns of mutual interest (e.g., coffee cluster assemblies, coffee congress, etc.) 	Basilan, Sulu	<p><u>Public</u> LGU-OPAG and OMAS, MTIT, MAFAR</p> <p><u>Private</u> Coffee Councils and Federations, Coffee Cooperatives, Processors, Traders, NGOs, ODA</p>

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Conclusion

Aside from being one of the most popular beverages, coffee brings about economic benefits to the coffee VC stakeholders and the local economy in terms of employment, income and revenue generation, especially among the small coffee holders. Moreover, coffee and coffeeshops are integral of the Islamic culture as this is where old folks and professionals alike gather not to only to drink coffee but to hear from each other and where their social fabric and cohesion are formed and strengthened.

The province of Sulu remains among the top coffee producing provinces in the country. The coffee industry in Basilan has gone through the phase of being a sunset industry with rubber and coconut topping over its priority commodities. This is evident in three of its coffee processors sourcing their dried cherry beans from other provinces in Mindanao. Nonetheless, with the remaining coffee trees that need rejuvenation and rehabilitation and the renewed interest currently shown by farmers in the province, the Basilan coffee industry has now begun to become a sunrise industry.

Nonetheless, the coffee industry in both provinces are beset with challenges in all segments of the VC ranging from concerns on input supplies, farm management and other agricultural practices, harvesting and drying practices, access to modern technologies and equipment for farming and processing, access to financing, certifications, packaging and labeling, market access, role of marginalized sectors, data generation and information management, research and development, individual capacities and organizational development, among others. These challenges ought to be resolved via a multi-stakeholder and convergence approach amidst the myriad enablers including the NGAs, the BARMM government, the LGUs, the government and private financing institutions, the SUCs and private HEIs, the RDIs, the local and international NGOs, the ODAs, as well as the organized coffee groups and cooperatives.

The coffee VC players remain optimistic that with the renewed interest in coffee farming among farmers and with new coffee farmers coming in, coupled with the right mix of technical and financial assistance including peace dividends from these previously war-torn areas, the coffee industry in both provinces will eventually achieve its full potentials.



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Annex A
List of BARMM Agencies Consulted and Key Informants Interviewed

A. List Coffee VC Actor Key Informants

BASILAN

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NAME	VC ROLE & POSITION	COOPERATIVE/ BUSINESS AFFILIATION	ADDRESS	CONTACT NUMBER	SEX	ETHNIC AFFILIATION
1. Rosita Laquio	Farmer	None	Look, Lamitan City	0997 068 9807	Female	Chavacano
2. Feliciano Bustillo	Farmer	None	Ulame, Lamitan City	0955 193 3575	Female	Bisaya
3. Joel Del Rosario	Farmer	None	Tairan, Lantawan	0967 742 2828	Male	Bisaya
4. Basher Lanang	Farmer	TARBIDC	Tumahubong, Sumisip	0926 630 1181	Male	Chavacano
5. Randy Mandikih	Farmer	None	Sumisip	0926 630 1181	Male	Bisaya
6. Ayyap Awal	Farmer	None	Kailih, Sumisip	0917 157 5900	Male	Yakan
7. Nelson Del Rosario	Farmer	TARBMC	Tairan, Lantawan	0967 742 2828	Male	Yakan
8. Junie Samson	Farmer	None	Tumahubong, Sumisip	No Cp c/o Nelson	Male	Yakan
9. Dale Pelegrin	Processor	EJN (Efren/Richard New) Copra-Rubber-Coffee Trading	Brgy. Matatag, Lamitan City	0967 742 2828 0951-033-4794	Male	Bisaya
10. Nestor Cuyos	Processor	Joans Native Coffee	Townsite, Maluso	0936 448 2622	Male	Bisaya
11. Elmer Dinglase	Processor	Jezreel Basilan Coffee	Look, Lamitan City	0927 048 4783	Male	Bisaya
12. Edelita Fornolles	Processor	Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative (SCARBDC)	Sta. Clara, Lamitan City	0995 766 9477	Female	Bisaya
13. Allan Catamco	Processor	United Workers Agrarian Reform Beneficiaries Multi- Purpose Cooperative (UWARBMPC)	Menzi, Isabela City	0955 598 0979	Male	Bisaya
14. Rodjane Quinol	Trader	EJN (Efren/Richard New) Copra-Rubber-Coffee Trading	Brgy. Matatag, Lamitan City	0951-033-4794	Female	Bisaya
15. Allan Catamco	Trader	UWARBMPC	Brgy. Menzi, Isabela City	0955 598 0979	Male	Bisaya
16. Cheryl Bataluna	Trader	Basilan Quality Product – Interco	Riverside, Isabela City	0935 339 1829	Female	Bisaya

NAME	VC ROLE & POSITION	COOPERATIVE/ BUSINESS AFFILIATION	ADDRESS	CONTACT NUMBER	SEX	ETHNIC AFFILIATION
17. Edelita Fornolles	Cooperative – Plantation Manager	Santa Clara Agrarian Reform Beneficiaries Multi-Purpose Cooperative (SCARBDC)	Sta Clara, Lamitan	0966-504-8065	Female	Bisaya
18. Nelson del Rosario	Cooperative – Chairman	Tairan Agrarian Reform Beneficiaries Multi-Purpose Cooperative (TARBMC)	Bgry. Tairan, Lantawan	0967 742 2828	Male	Yakan
19. Nursida M. Lanang	Cooperative – Secretary	Tumahubong Agrarian Reform Beneficiaries Integrated Development Cooperative (TARBIDC)	Brgy. Mangal, Sumisip	0975 640 7256	Female	Yakan
20. Pitong Gomez	Cooperative – Chairman	Manggal Agrarian Reform Beneficiaries Multi-Purpose Cooperative (MARBECO)	Brgy. Mangal, Sumisip	0905 063 4338	Male	Yakan
21. Edilberto Martinez	Cooperative – Manager	Lamitan Agrarian Reform Beneficiaries Cooperative (LARBECO)	Lamitan City	0947 782 4564	Male	Bisaya

SULU

NAME	VC ROLE & POSITION	COOPERATIVE/ BUSINESS AFFILIATION	ADDRESS	CONTACT NUMBER	SEX	ETHNIC AFFILIATION
1. Muddazer Hailanie	Farmer	Kankitap Consumers Cooperative	Latih, Patikul	0926-485-7944	Male	Tausug
2. Abdulmunah Bairulla	Farmer	Hidayat MNLF Agri-Fishery Producers Cooperative	Matatal, Maimbung	0905-877-5362	Male	Tausug
3. Nurhana S. Abdurahim	Farmer	None	Tuyang, Talipao	0909-448-6350, 0955-423-0309	Female	Tausug
4. Alsharidz H. Hamsain	Farmer	Al-Nur Coffee	Tandu Patung, Maimbung	0915-721-2271	Male	Tausug
5. Baih S. Isnani	Farmer	None	Buton, Parang	0936-857-7442	Male	Tausug
6. Salma Garingan	Farmer	None	Bonbon, Patikul	None	Female	Tausug
7. Amina Habibul	Farmer	None	Lawm Kabbon Pang, Kalingalan Caluang	None	Female	Tausug
8. Imelda A. Juraim	Farmer	None	Lahing-Lahing, Omar	None	Female	Tausug
9. Edil Taji	Farmer	None	Tampakan, Talipao	None	Male	Tausug
10. Sharfiya Hayudini	Processor	Nanies Cafe	Kasanyangan Vil., Anuling, Patikol	Undisclosed	Female	Tausug
11. Alfrazier Ahalol	Processor	Dennis Cafe	Scott road, San Raymundo, Jolo	Undisclosed	Male	Tausug

12. Jal-Alpha Salahuddin	Processor	Lupah Sug Coffee Processing Services	Km 2, Kajatian, Indanan	0927-168-6294	Male	Tausug
13. Arser K. Jumadil	Trader/ Retailer	None/Sole Prop	Jolo Public Market, Chinese Pier, Jolo	0965-591-5980	Male	Tausug
14. Sharfiya Hayudini	Trader	Nanies Cafe	Kasanyangan Vil., Anuling, Patikul	Undisclosed	Female	Tausug
15. Alfrazier Ahalol	Trader	Dennis Cafe	Scott Road, San Raymundo, Jolo	Undisclosed	Male	Tausug
16. Jal-Alpha Salahuddin	Trader	Lupah Sug Coffee Processing Services	Km 2, Kajatian, Indanan	0927-168-6294	Male	Tausug
17. Nhedz Tahir	Cooperative – Board of Director	Kankitap Consumers Cooperative	Latih, Patikul	0955-584-1406	Male	Tausug
18. Nasra K. Abubakar	Cooperative – Chairperson	Aldihaya Farmers Kababaihan Agricultural Cooperative	Brgy. Buhanginan/ Darayan, Patikul	0935-389-3384	Female	Tausug
19. Satra A. Mohamao	Cooperative - Chairperson	Andihihi Agri-Marine Cooperative	Km 4. Tagbak, Indanan	09530738274	Female	Tausug
20. Abdul Bairula	Cooperative – Chairperson	Hidayat MNLF Agri-fishery Producers Cooperative	Matatal, Maimbung	0905-877-5362	Male	Tausug
21. Makintan Kahil Juraim	Cooperative – Chairperson	Osama Sin Anak Miskin Association (OSAMA)	Lahing-Lahing, Omar	0905-796-8251	Male	Tausug
22. Sami Abdulmajid Salapuddin	Cooperative – Member	Tampakan Agriculture Cooperative	Tampakan, Talipao	0955-587-0375	Male	Tausug

List of BARMM Agencies Consulted

- Ministry of Agriculture Fisheries and Agrarian Reform (MAFAR) - Regional Office
- MAFAR Basilan
- MAFAR Sulu
- Office of Provincial Agriculturist (OPAG) - Sulu
- Offices of Municipal Agriculture Services (OMAS) - Indanan, Sulu
- OMAS – Talipao, Sulu
- OMAS – Sumisip, Basilan
- MMO – Patikul, Sulu
- MMO - Maimbung, Sulu
- OPAG – Basilan
- City Agriculture Office (CAO) - Lamitan City
- Ministry of Trade, Investments and Tourism (MTIT) - Regional Office
- MTIT Basilan
- MTIT Sulu

List of Key Informant from Other Agencies

- Ms. Maria Lizzel Bomediano
- Officer-In-Charge, MSD
- PCIC Regional Office IX
- Pagadian City

Annex B
KII Questionnaires

Signed informed consent for surveys
Short consent form for surveys

People in Need (PIN) would like to use your name, age, address/location, health and your household information, to conduct a survey that will help us to assess the needs and plan our projects in Basilan and Sulu. We will collect and keep the data only if you give us **consent** to it. We will keep this information for a maximum of 5 years after the project ends. Even if you accept now, you can still withdraw your permission at any time in the future and ask for your information to be removed.

Your refusal to participate in this survey and to allow us to collect your information will **not** affect your chances to receive assistance from PIN.

Your participation in this survey does **not** guarantee that you will receive assistance from PIN.

QUESTIONNAIRE FOR: COFFEE FARMERS
Market Assessment for Coffee Value Chain

DISCLAIMER AND CONFIDENTIALITY: The conduct of this market assessment is initiated by the People in Need (PIN) organization. The results of this assessment will help the *Leveraging and Expanding Agri-Aqua Production in Bangsamoro (LEAP) Project* implementers to provide the necessary services in line with its goal of strengthening the resilience of agriculture and aqua-culture value chains, particularly coffee and its intercropping opportunities, in BARMM. Rest assured, your response to the questions will be considered and handled with utmost confidentiality.

Name of Respondent: _____ Date of Interview: _____

Contact Number: _____

Address: _____

Affiliated Organization (Coffee Group/Cooperative): _____

Age: _____ Year started in Coffee Farming: _____

Sex: Male Female

Ethnic Affiliation: Yakan Tausug Sama Chavacano Others _____

Religious Affiliation: Islam Christian Others _____

Disability: PWD Non-PWD

Civil Status: Single Married Widowed Solo Parent

Number of household members involved in coffee farming: _____

Household Head: Yes No

Education Level: Haven't gone to school Elem. Level Elem. Graduate High

School Level High School Graduate

College Level College Graduate Post-Graduate

Total Area Planted with Coffee: _____

Existing Variety Planted: Arabica Excelsa. Liberica. Robusta. Others _____

Land Ownership of Coffee Farm: Owned Rented Leased Tenant. Shared

Monthly Income from Coffee: Php 5,000 and below Php 10,001 to 15,000

Php 5,001 to 10,000 above Php 15,000

Total Monthly Income: Php 8,000 and below Php 15,001 to 25,000

Php 8,001 to 15,000 above Php 25,000

Main Source of Income: _____

Other Source of Income (i.e., livestock, online selling, etc.): _____

RSBSA Registered: Yes No

FARMING (INCLUDING INPUT PROVISION)

1. Do you practice diversified farming on your coffee farm? Yes No/Monocrop



If yes, what crops are intercropped with coffee on your farm?

- Fruit trees _____ Root crops _____
 Other cash crops (i.e., coconut, cacao, etc.) _____



How much is your monthly income from your intercropping activity?

- Php 5,000 and below Php 10,001 to 15,000
 Php 5,001 to 10,000 above Php 15,000

2. From where and whom did you acquire your coffee planting materials? Describe the quality.

3. How did you access good quality planting materials?



Is it free? Yes No



If not, how much? _____



How many coffee seedlings do you usually purchase or acquire? _____

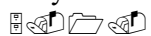


What variety? _____

4. Other than planting materials as cited in item #2 above, what other farm inputs (fertilizers, farm tools) have you acquired for your coffee farm?

TYPE OF INPUTS	SOURCE (Government or Private)	REMARKS (PAID or FREE)

5. Do you hire laborers for your farm? Yes No



If yes, for what work?

- Planting Farm management (weeding, pruning, fertilizing, etc.) _____
 Harvesting Postharvest (drying, sorting, etc.) _____



If yes, how much do you pay?

6. Do you have other coffee farming practices that are unique only to your province?

- Yes No



If yes, please describe.

7. What harvesting technique do you use on your farm?




- Pick red/ripe
 All-in (*Armalite method*)
 Others





What made you choose that particular method?

8. Do you have experience of using modern solar technology for farming?



   For coffee: Yes No



   If yes, kindly describe briefly below.

  For other crops: Yes No



  If yes, kindly specify what crop and describe briefly below




9. Are you familiar with Good Agriculture Practices (GAP) for Coffee? Yes No




  If yes, how and from whom did you learn about it? _____

  If yes, have you applied it to your coffee farm? Yes No



  If yes, is it: Full practice of GAP Partial practice of GAP

  If full, are you now a certified GAP coffee farm? Yes No

   If not yet GAP certified, what prevented you from being certified?

   If partial, what particular practice did you apply in your coffee farm? Please check as applicable:

- Location of production site
- Farm sanitation
- Selection of planting materials
- Land preparation
- Fertilization
- Water management (including irrigation)
- Pruning
- Pest and disease management
- Harvesting operations

  If you did not practice GAP, why? What constrained you from applying GAP for coffee in your coffee farm?

EXTENSION SERVICES

10. Aside from services related to inputs, what other extension services (e.g., technical assistance, training, financial assistance, etc.) have you availed related to coffee farming?

TYPE OF EXTENSION SERVICES	SERVICE PROVIDER & YEAR	REMARKS (PAID OR FREE)

11. Have you attended any training related to coffee farming? Yes No
 ☞☞☞☞☞ If yes, are they listed already in item 5 above? Yes No
 ☞☞☞☞☞ If not yet, please list them down below.

TRAININGS ATTENDED	TRAINING PROVIDER & YEAR

☞☞☞☞☞ Did you fully adopt the learnings from the training (all learnings/module)?
 Yes No

☞☞☞☞☞ If not, what extent of the learning have you applied/adopted?

☞☞☞☞☞ What parts of the training were not applied/adopted?

☞☞☞☞☞ What constrained/prevented you from applying all of your learnings from the training?

12. Are there financial institutions in the area that provide/offer financial assistance (loans/credit)?
 Yes No

13. If Yes, please specify the financial institution _____

14. Have you availed of Islamic financing? Yes No
 ☞☞☞☞☞ If yes, from what Islamic financing institution and what are their requirements and terms of payment?

NAME & ADDRESS OF ISLAMIC FINANCIAL INSTIUTION	MAXIMUM LOAN AMOUNT AVAILED	REQUIREMENTS (e.g., collaterals like post-dated checks, property title, etc.) & INTEREST RATE	TERMS OF PAYMENT

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If not, why?

15. Aside from Islamic financing, have you availed of other forms of financial loans/credit?

Yes No



If yes, thru what channel?

Informal channel

Formal channel



If thru informal channel, from whom?

Friends/Acquaintances Family and/or relatives Others _____



If thru formal channel, which lending institution and what are their specific requirements and terms of payment?

NAME & ADDRESS OF LENDING INSTIUTION	MAXIMUM LOAN AMOUNT AVAILED	REQUIREMENTS (e.g., collaterals like post-dated checks, property title, etc.) & INTEREST RATE	TERMS OF PAYMENT



If not, why? Are there hindering factors? Please write them down below.

16. Are you aware of crop insurance and its providers? Yes No



Have you availed of crop insurance policy for your coffee farm? Yes No



If yes, from what insurance agency and what is their coverage?

NAME & ADDRESS OF INSURANCE AGENCY	MAXIMUM AMOUNT COVERED	REQUIREMENTS FOR AVAILMENT	EASY TO AVAIL?	
			Yes	No



If not, why? Are there hindering factors? Please write them down below.

PROCESSING

17. Do you also process your harvested coffee beans? Yes No

18. If yes, what coffee product form do you produce?

- Dried Cherry Beans with Pulp
- Roasted Coffee Beans
- Powdered/Instant Coffee

- Green Coffee Beans (GCB)
- Ground Coffee
- Others: _____

PRODUCT MARKETING

PRODUCT FORM (as applicable)	VOLUME (kg)	BUYING PRICE (Php/kg)	FREQUENCY (weekly, monthly, etc.)	BUYER	LOCATION OF BUYER	MODE OF TRANSACTION (cash to cash, etc)
Red Cherry Beans (RCB)						
Dried Cherry Beans with Pulp						
Green Coffee Beans (GCB)						
Roasted coffee beans						
Ground coffee						
Powdered/instant coffee						
Others (please specify)						

19. Do you intend to sell all (100%) of your harvest? Yes No



If no, how many percent do you retain? _____



For what purpose:

household consumption

Other purpose, please specify: _____

20. Of the percentage of harvest that you intend to sell, are they all accepted in the market?

Yes

No

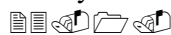


If not, what makes them unsuitable to the market (e.g., problems with meeting market/buyer standards, etc.)?

21. How did you get your market information (in terms of who the buyers are)?

22. How did you get your market information (in terms of how much the buying price is)?

23. Have you attended any market linkage activity? Yes No



If yes, who facilitated it? _____



Is it: Free For a Fee



If for a fee, how much? Php _____



If no, why not? Are there hindering factors? Please write them down below.

24. How do you transport your goods and how much is the transportation cost?

ACCESSIBILITY/ MOVEMENT	MODE OF TRANSPORTATION	HAULING COST (e.g., per kg/sack)
Farm to buyer		
Farm to Consolidator		

ROLE OF MARGINALIZED SECTORS

25. What particular role/s in the coffee farming activities do the following marginalized groups specifically play?

What challenges were encountered that hindered their meaningful participation?

SECTOR/ ROLE/ CHALLENGES	WOMEN	YOUTH	IPs	PWD
Role				
Challenges				

CONSTRAINTS (GAPS/PROBLEMS) & OPPORTUNITIES & PROPOSED INTERVENTIONS

26. As a **coffee farmer** and based on your personal experience in the coffee industry, what constraints/gaps/problems and opportunities did you encounter in each of the following segments of the coffee value chain in your province?

What is your recommendation to specifically address the constraint or maximize the opportunity?

Constraints/Opportunities	Recommended Interventions
INPUT PROVISION	
FARMING	
PROCESSING	
MARKETING/TRADING	

HORIZONTAL RELATIONSHIP

Players	Rating	Description
Information Sharing and Transparency (7-9 Strong) (4-6 Moderate) (1-3 Weak)		
Farmers		
Competition (Effective/Ineffective)		
Farmers		
Trust (7-9 Strong) (4-6 Moderate) (1-3 Weak)		
Farmers		
Benefits from Collective Initiatives (7-9 Strong) (4-6 Moderate) (1-3 Weak)		
Farmers		

VERTICAL RELATIONSHIP

Note: Answer only those which are applicable to you as a farmer.

Procurement of Supply (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Relationship	Rating	Frequency/ Type of Transaction	Description
Input Suppliers – Farmers			
Farmers – Consolidator			
Farmer - Traders			
Information Sharing on Technology and Price (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Relationship	Rating	Description	
Input Suppliers – Farmers			
Farmers – Consolidator			
Farmer - Traders			
Quality Control (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Relationship	Rating	Description	
Input Suppliers – Farmers			
Farmers – Consolidator			
Farmer - Traders			
Presence of Value-Added Services (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Relationship	Rating	Description	
Input Suppliers – Farmers			
Farmers – Consolidator			
Farmer - Traders			

MAGSUKOL!

Do you have any questions? Would you like to learn more about how we will use this data and other personal information that we collect (name, address, etc.)?

- Yes
- No

May we collect name, age, address/location, health and your household information?

- Agree
- Disagree

Name	
Place and date	
Signature	

Full text of consent form and privacy notice for surveys

What information do we use and why?

People in Need (PIN) would like to use your name, age, address/location, health and your household information, to conduct a survey that will help us to assess the needs and plan our projects in Basilan and Sulu.

We will collect and use this information only if you agree.

What do we do with the information?

We will use the information only for the above mentioned purposes.

Your information may be shared with the database operators, where your data is stored, external monitoring or evaluation consultants, our project partners, donors and/or auditors. Some of your information may be (exceptionally) stored outside of the EU; in such case, we make sure it is kept safe in line with our standards of data protection.

How long do we keep the information?

We will keep your information for a maximum of **5 years** after the project ends for audit purposes.

What are your rights?

You do not have to agree with giving us your information. Even if you agree now, you can still withdraw your permission at any time in the future and ask for the data to be erased by contacting our Community Feedback and Response Mechanism (CFRM) at the following numbers:

CFRM Globe: 09454093239
CFRM SMART: 09062217222

Furthermore, you have the right to:

1. request access to the data we collect and hold about you,
2. receive this information in a commonly used and understandable format (e.g. an extract from the database in a paper or electronic form),
3. request more details about the data we collect and how and why we use it,
4. have your data corrected, restricted or deleted,
5. object to us processing your data,
6. contact us or lodge a complaint to the Office for Personal Data Protection in case you have any doubts about the way we use the data.

Our contact information

Člověk v tísni, o.p.s. / People in Need Local office address: 3rd Floor VHW Building, Zone III, Zamboanga City
with its registered office at: Šafaříkova 24, Praha 2, 120 00, Czech Republic
Identification No: 25 75 52 77, contact details of the Data Protection Officer: dpo@clovekv tisni.cz.

Signed informed consent for surveys Short consent form for surveys

People in Need (PIN) would like to use your name, age, address/location, health and your household information, to conduct a survey that will help us to assess the needs and plan our projects in Basilan and Sulu. We will collect and keep the data only if you give us **consent** to it. We will keep this information for a maximum of 5 years after the project ends. Even if you accept now, you can still withdraw your permission at any time in the future and ask for your information to be removed.

Your refusal to participate in this survey and to allow us to collect your information will **not** affect your

chances to receive assistance from PIN.

Your participation in this survey does **not** guarantee that you will receive assistance from PIN.

QUESTIONNAIRE FOR: COFFEE PROCESSORS
Market Assessment for Coffee Value Chain

DISCLAIMER AND CONFIDENTIALITY: The conduct of this market assessment is initiated by the People in Need (PIN) organization. The results of this assessment will help the *Leveraging and Expanding Agri-Aqua Production in Bangsamoro (LEAP) Project* implementers to provide the necessary services in line with its goal of strengthening the resilience of agriculture and aqua-culture value chains, particularly coffee and its intercropping opportunities, in BARMM. Rest assured, your response to the questions will be considered and handled with utmost confidentiality.

Name of Respondent: _____ Date of Interview: _____

Contact Number: _____

Age: _____ Year started in Coffee Processing : _____

Business Name: _____

Business Location: _____

Nature of Business: Sole proprietorship Partnership Corporation

Business Registration: DTI LGU BIR SEC Others _____

Affiliated Organization (Coffee Group/Cooperative): _____

Sex: Male Female

Ethnic Affiliation: Yakan. Tausug Sama Chavacano Others _____

Religious Affiliation: Islam Christian Others _____

Disability: PWD Non-PWD

Civil Status: Single Married Widowed Solo Parent

Education Level: Haven't gone to school Elem. Level Elem. Graduate

High School Level High School Graduate College Level College Graduate

Post-Graduate

Monthly Income from Coffee: Php 5,000 and below Php 10,001 to 15,000

Php 5,001 to 10,000 above Php 15,000

Total Monthly Income: Php 8,000 and below Php 15,001 to 25,000

Php 8,001 to 15,000 above Php 25,000

Main Source of Income: _____

Other Source of Income: _____

RSBSA Registered: Yes No

PRODUCTS AND SOURCES

1) What coffee products do you process?

PRODUCT FORM (as applicable)	BUYING PRICE (Php/ kg)				COST OF	
Dried Cherry Beans						
Green Coffee Beans (GCB)						
Roasted coffee beans						
Ground coffee						
Powdered/ instant coffee						

PRODUCT FORM (as applicable)	BUYING PRICE (Php/ kg)	COST OF
Others (please specify)		

2) What are your quality requirements for each product type?

PRODUCT FORM (as applicable)	QUALITY REQUIREMENT
Dried Cherry Beans	
Green Coffee Beans (GCB)	
Roasted coffee beans	
Ground coffee	
Powdered/instant coffee	
Others (please specify)	

3) Do you provide information to your suppliers of your quality and volume requirement?

- Yes No

4) If yes, how do you provide to your suppliers the quality and volume requirement?

5) Are you satisfied with the quality of products from your suppliers? Yes No

α. Why or why not?

6) What are your observations in the quality of the coffee you procured during the last five years?

7) How do you acquire your products?

- Delivered to your processing area Pick-up from farmer's/trader's site

8) How do you see the supply of products in the next 5 years? Increase or decrease and why?

9) What is the manpower complement in processing (e.g. driver, helper, classifier)?

- Driver
 Helper, number _____
 Classifier, number _____
 Others, please specify and include number _____

NEXT LEVEL BUYER

10) Who are the buyers of your product/s?

PRODUCT FORM (as applicable)	VOLUME (kg)	NAME & LOCATION OF BUYER	BUYING PRICE (per kg)	FREQUENCY
GCB				
Roasted coffee beans				
Ground coffee				
Powdered/instant coffee				
Others (please specify)				

11) What is your buyer/s' quality requirement per product form?

PRODUCT FORM (as applicable)	QUALITY REQUIREMENT
GCB	
Roasted coffee beans	
Ground coffee	
Powdered/instant coffee	
Others (please specify)	

12) What is the mode of transaction (delivered/pick-up, cash transaction)?

- Delivered to the buyer's trading post Pick-up from processing post

13) Do you intend to sell all (100%) of your produce? Yes No

α. If no, how many percent do you retain? _____

β. For what purpose:

Household consumption

Other purpose, please specify: _____

14) Of the percentage of produce that you intend to sell, are they all accepted in the market?

Yes No

α. If not, what makes them unsuitable for the market (e.g., problems with meeting market/buyer standards, etc.)?

15) How did you get your market information?

IN TERMS OF PRICE	IN TERMS OF MARKET

16) How do you transport your goods and how much is the transportation cost?

ACCESSIBILITY/ MOVEMENT	MODE OF TRANSPORTATION	HAULING COST (e.g., per kg/sack)
Farm to processing area		
Processing area to market		

17) Have you attended any market linkage activity? ___ Yes ___ No

α. If yes, who facilitated it?

i. Is it: Free For a Fee

ii. If for a fee, how much? Php _____

iii.

β. If no, why not? Are there hindering factors? Please write them down below.

EXTENSION SERVICES

18) What extension services (e.g., technical assistance, trainings, financial assistance, etc.) have you availed from the MMO, MFAR Provincial Office, OPAG, MTIT, private stakeholders?

TYPE OF EXTENSION SERVICES	SERVICE PROVIDER	REMARKS (PAID OR FREE)

19) Have you attended any training related to coffee processing? Yes No

α. If yes, are they listed already in item 5 above? Yes No

β. If not yet, please list them down below.

TRAININGS ATTENDED	TRAINING PROVIDER & YEAR

χ. Did you fully adopt the learnings from the training (all learnings/module)?

Yes No

δ. If not, what extent of the learning have you applied/adopted?

ε. What parts of the training were not applied/adopted?

φ. What constrained/prevented you from applying all of your learnings from the training?

20) Are you familiar with Good Manufacturing Practices (GMP)? Yes No

α. If yes, how and from whom did you learn about it? _____

ι. If yes, have you applied it to your coffee processing? Yes No

ιι. If yes, is it: Full practice of GMP Partial practice of GMP

ιιι. If full, are you now a certified GMP coffee processor? Yes No

1. If not yet GMP certified, what prevented you from being certified?

ιιιι. If partial, what particular practice did you apply in your coffee processing?

β. If you did not practice GMP, why? What constrained you from applying to your coffee processing?

21) Are you familiar with Halal certification? Yes No

α. If yes, how and from whom did you learn about it? _____

ι. If yes, have you applied for it for your processed coffee products?

Yes No

1. If yes, are your coffee products now Halal certified?

Yes No

2. If no, what prevented you from being certified despite your application

ιι. If you did not apply despite your knowledge of halal certification, what prevented you?

22) Aside from GMP and Halal, do you have other certifications for your coffee products? (e.g., organic, LTO, BFAD, etc.)

Yes No

α. If yes, what are these? _____

β. If none, why? What constrained you from doing so? _____

_____ Do you have plans of being registered/accredited/certified in the future? Yes No

ι. What assistance would you need?

_____ Are there financial institutions in the area that provide/offer financial assistance (loans/credit)?

Yes No

23) If Yes, please specify the financial institution _____

24) Have you availed of Islamic financing? Yes No

α. If yes, from what Islamic financing institution and what are their requirements and terms of payment?

NAME & ADDRESS OF ISLAMIC FINANCIAL INSTIUTION	MAXIMUM LOAN AMOUNT AVAILED	REQUIREMENTS (e.g., collaterals like post-dated checks, property title, etc.) & INTEREST RATE	TERMS OF PAYMENT

β. If not, why?

25) Aside from Islamic financing, have you availed of other forms of financial loans/credit?

Yes No

α. If yes, thru what channel? Informal channel Formal

β. If thru informal channel, from whom?

Friends/Acquaintances Family and/or relatives

Others: _____

γ. If thru formal channel, which lending institution and what are their specific requirements and terms of payment?

NAME & ADDRESS OF LENDING INSTIUTION	MAXIMUM LOAN AMOUNT AVAILED	REQUIREMENTS (e.g., collaterals like post-dated checks, property title, etc.) & INTEREST RATE	TERMS OF PAYMENT

δ. If you haven't availed of other forms of financial loans/credit, why? Are there hindering factors? Please write them down below?

ALTERNATIVE ENERGY SOURCES

26) Aside from conventional electricity from the grid, have you tried using other forms of energy as power sources (e.g., solar, wind, etc.) in your coffee processing?

Yes No

α. If yes, for what reason?

β. What other alternative energy form have you utilized in this line of business?

ROLE OF MARGINALIZED SECTORS

27) What particular role/s in the coffee processing activities do the following marginalized groups specifically play? What challenges were encountered that hindered their meaningful participation?

SECTOR/ ROLE/ CHALLENGES	WOMEN	YOUTH	IPs	PWD
Role				
Challenges				

CONSTRAINTS (GAPS/PROBLEMS) & OPPORTUNITIES & PROPOSED INTERVENTIONS

28) As a **coffee processor** and based on your personal experience in the coffee industry, what constraints/ gaps/problems and opportunities did you encounter in each of the following segments of the coffee value chain in your province? What is your recommendation to specifically address the constraint or maximize the opportunity?

CONSTRAINTS/OPPORTUNITIES	RECOMMENDED INTERVENTIONS
INPUT PROVISION	
FARMING	
PROCESSING	
MARKETING/TRADING	

HORIZONTAL RELATIONSHIP

PLAYERS	RATING	DESCRIPTION
Information Sharing and Transparency (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Processor- Processor		
Competition (Effective/Ineffective)		
Processor- Processor		
Trust (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Processor- Processor		
Benefits from Collective Initiatives (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Processor- Processor		

VERTICAL RELATIONSHIP

Note: Answer only those which are applicable to you as a trader/consolidator.

RELATIONSHIP	RATING	FREQUENCY/ TYPE OF	DESCRIPTION
Procurement of Supply (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Farmers – Consolidator			
Farmer - Traders			
Consolidator - Trader			
Farmer – Processor			
Trader– Processor			
Processor – Trader			

Information Sharing on Technology and Price (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Farmers – Consolidator			
Farmer - Traders			
Consolidator - Trader			
Farmer – Processor			
Trader– Processor			
Processor – Trader			
Quality Control (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Farmers – Consolidator			
Farmer - Traders			
Consolidator - Trader			
Farmer – Processor			
Trader– Processor			
Processor – Trader			
Presence of Value-Added Services (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Farmers – Consolidator			
Farmer - Traders			
Consolidator - Trader			
Farmer – Processor			
Trader– Processor			
Processor – Trader			

MAGSUKOL!

Do you have any questions? Would you like to learn more about how we will use this data and other personal information that we collect (name, address, etc.)?

- Yes
- No

May we collect name, age, address/location, health and your household information?

- Agree
- Disagree

Name	
Place and date	
Signature	

Full text of consent form and privacy notice for surveys

What information do we use and why?

People in Need (PIN) would like to use your name, age, address/location, health and your household information, to conduct a survey that will help us to assess the needs and plan our projects in Basilan and Sulu.

We will collect and use this information only if you agree.

What do we do with the information?

We will use the information only for the above-mentioned purposes. Your information may be shared with the database operators, where your data is stored, external monitoring or evaluation consultants, our project partners, donors and/or auditors. Some of your information may be (exceptionally) stored outside of the EU; in such case, we make sure it is kept safe in line with our standards of data protection.

How long do we keep the information?

We will keep your information for a maximum of **5 years** after the project ends for audit purposes.

What are your rights?

You do not have to agree with giving us your information. Even if you agree now, you can still withdraw your permission at any time in the future and ask for the data to be erased by contacting our Community Feedback and Response Mechanism (CFRM) at the following numbers:

CFRM Globe: 09454093239

CFRM SMART: 09062217222

Furthermore, you have the right to:

2. request access to the data we collect and hold about you,
3. receive this information in a commonly used and understandable format (e.g. an extract from the database in a paper or electronic form),
4. request more details about the data we collect and how and why we use it,
5. have your data corrected, restricted or deleted,
6. object to us processing your data,
7. contact us or lodge a complaint to the Office for Personal Data Protection in case you have any doubts about the way we use the data.

Our contact information

Člověk v tísni, o.p.s. / People in Need Local office address: 3rd Floor VHW Building, Zone III, Zamboanga City with its registered office at: Šafaříkova 24, Praha 2, 120 00, Czech Republic Identification No: 25 75 52 77, contact details of the Data Protection Officer: dpo@clovekv tisni.cz.

Signed informed consent for surveys
Short consent form for surveys

People in Need (PIN) would like to use your name, age, address/location, health and your household information, to conduct a survey that will help us to assess the needs and plan our projects in Basilan and Sulu. We will collect and keep the data only if you give us consent to it. We will keep this information for a maximum of 5 years after the project ends. Even if you accept now, you can still withdraw your permission at any time in the future and ask for your information to be removed.

Your refusal to participate in this survey and to allow us to collect your information will not affect your chances to receive assistance from PIN.

Your participation in this survey does not guarantee that you will receive assistance from PIN.

QUESTIONNAIRE FOR: COFFEE CONSOLIDATORS/TRADERS
Market Assessment for Coffee Value Chain

DISCLAIMER AND CONFIDENTIALITY: The conduct of this market assessment is initiated by the People in Need (PIN) organization. The results of this assessment will help the Leveraging and Expanding Agri-Aqua Production in Bangsamoro (LEAP) Project implementers to provide the necessary services in line with its goal of strengthening the resilience of agriculture and aqua-culture value chains, particularly coffee and its intercropping opportunities, in BARMM. Rest assured, your response to the questions will be considered and handled with utmost confidentiality.

Name of Respondent: _____ Date of Interview: _____

Contact Number: _____

Age: _____ Year started in Coffee Trading/Consolidation : _____

Business Name: _____

Business Location: _____

Nature of Business: Sole proprietorship Partnership Corporation

Business Registration: DTI LGU BIR SEC Others _____

Affiliated Organization (Coffee Group/Cooperative): _____

Sex: Male Female

Ethnic Affiliation: Yakan Tausug Sama Chavacano Others _____

Religious Affiliation: Islam Christian Others _____

Disability: PWD Non-PWD

Civil Status: Single Married Widowed Solo Parent

Education Level: Haven't gone to school Elem. Leve Elem. Graduate

High School Level High School Graduate College Level College Graduate

Post-Graduate

Monthly Income from Coffee: Php 5,000 and below Php 10,001 to 15,000

Php 5,001 to 10,000 above Php 15,000

Total Monthly Income: Php 8,000 and below Php 15,001 to 25,000

Php 8,001 to 15,000 above Php 25,000

Main Source of Income: _____

Other Source of Income: _____

RSBSA Registered: Yes No

PRODUCTS AND SOURCES

1) What products do you buy?

PRODUCT FORM (as applicable)	VOLUME (kg)	FREQUENCY	SOURCE OF PRODUCTS	BUYING PRICE	AVERAGE % MARK- UP
Red Cherry Beans (RCB)					
Dried Cherry Beans					
Green Coffee Beans (GCB)					
Roasted coffee beans					
Ground coffee					
Powdered/instant coffee					
Others (<i>please specify</i>)					

2) What are your quality requirements for each product type?

PRODUCT FORM (as applicable)	QUALITY REQUIREMENT (e.g., moisture content, appearance, etc.)
Red Cherry Beans (RCB)	
Dried Cherry Beans	
Green Coffee Beans (GCB)	
Roasted coffee beans	
Ground coffee	
Powdered/instant coffee	
Others (<i>please specify</i>)	

3) Do you provide information to your suppliers of your quality and volume requirement?

Yes No

4) If yes, how do you provide to your suppliers the quality and volume requirement?

5) Are you satisfied with the quality of products from your suppliers? Yes No

a. Why or why not?

6) What are your observations in the quality of the coffee you procured during the last five years?

7) How do you acquire your products?

Delivered to your trading post

Pick-up from farmer's site

8) How do you see the supply of products in the next 5 years? Increase or decrease and why?

9) What is the manpower complement requirements in trading (e.g. driver, helper, classifier)?

Driver

Helper, number _____

Classifier, number _____

Others, please specify _____

NEXT LEVEL BUYER

10) Who are the buyers of your product/s?

PRODUCT FORM (as applicable)	NAME OF BUYER	LOCATION OF BUYER	VOLUME (kg)	BUYING PRICE (per kg)	FREQUENCY
Red Cherry Beans (RCB)					
Dried Cherry Beans					
Green Coffee Beans (GCB)					
Roasted coffee beans					
Ground coffee					
Powdered/instant coffee					
Others (please specify)					

11) What is your buyer/s' quality requirement per product form?

PRODUCT FORM (AS APPLICABLE)	QUALITY REQUIREMENT (e.g., moisture content, appearance, etc.)
Red Cherry Beans (RCB)	
Dried Cherry Beans	
Green Coffee Beans (GCB)	
Roasted coffee beans	
Ground coffee	
Powdered/instant coffee	

PRODUCT FORM (AS APPLICABLE) Others (please specify)	QUALITY REQUIREMENT (e.g., moisture content, appearance, etc.)
--	--

12) What is the mode of transaction (delivered/pick-up, cash transaction)?

- Delivered to the buyer's trading post Pick-up from trading post

13) How did you get your market information?

IN TERMS OF PRICE	IN TERMS OF MARKET

14) How do you transport your goods and how much is the transportation cost?

ACCESSIBILITY	MODE OF TRANSPORTATION	HAULING COST (per kg/ per sack)
Farm to trading post		
Trading post to market		

15) Have you attended any market linkage activity? __ Yes __ No

α. If not, why not?

EXTENSION SERVICES

16) What extension services (e.g., technical assistance, training, financial assistance, market linkaging, etc.) have you availed for related to coffee trading?

TYPE OF EXTENSION SERVICES	SERVICE PROVIDER & YEAR	REMARKS (PAID OR FREE)

17) Have you attended any training related to coffee trading?

- Yes No

α. If yes, are they listed already in item 5 above?

- Yes No

β. If not yet, please list them down below.

TRAININGS ATTENDED	TRAINING PROVIDER & YEAR

χ. Did you fully adopt the learnings from the training (all learnings/module)?

- Yes No

δ. If not, what extent of the learning have you applied/adopted?

ε. What parts of the training were not applied/adopted?

φ. What constrained/prevented you from applying all of your learnings from the training?

18) Are there financial institutions in the area that provide/offer financial assistance (loans/credit)?

- Yes No

19) If Yes, please specify the financial institution _____

20) Have you availed of Islamic financing? Yes No

α. If yes, from what Islamic financing institution and what are the terms?

NAME & ADDRESS OF ISLAMIC FINANCING INSTIUTION	MAXIMUM LOAN AMOUNT AVAILED	REQUIREMENTS (e.g., collaterals like post-dated checks, property title, etc.) & INTEREST RATE	TERMS OF PAYMENT

β. If not, why?

21) Aside from Islamic financing, have you availed of other forms of financial loans/credit?

- Yes No

α. If yes, thru what channel? Informal channel Formal channel

β. If thru informal channel, from whom?

- Friends/Acquaintances Family and/or relatives Others: _____

χ. If thru formal channel, which lending institution and what are their specific requirements and terms of payment?

NAME & ADDRESS OF LENDING INSTIUTION	MAXIMUM LOAN AMOUNT AVAILED	REQUIREMENTS (e.g., collaterals like post-dated checks, property title, etc.) & INTEREST RATE	TERMS OF PAYMENT

δ. If not, why? Are there hindering factors? Please write them down below.

ROLE OF MARGINALIZED SECTORS

22) What particular role/s in the coffee trading activities do the following marginalized groups specifically play? What challenges were encountered that hindered their meaningful participation?

SECTOR/ ROLE/ CHALLENGES	WOMEN	YOUTH	IPs	PWD
Role				
Challenges				

CONSTRAINTS (GAPS/PROBLEMS) OPPORTUNITIES & PROPOSED INTERVENTIONS

23) As a coffee trader and based on your personal experience in the coffee industry, what constraints and opportunities did you encounter in each of the following segments of the coffee value chain in your province? What is your recommendation to specifically address the constraint or maximize the opportunity?

Constraints/Opportunities	Recommended Interventions
INPUT PROVISION	
FARMING	
PROCESSING	
MARKETING/TRADING	

HORIZONTAL RELATIONSHIP

Players	Rating	Description
Information Sharing and Transparency (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Trader - Trader		
Competition (Effective/Ineffective)		
Trader - Trader		
Trust (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Trader - Trader		
Benefits from Collective Initiatives (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Trader - Trader		

VERTICAL RELATIONSHIP

Note: Answer only those which are applicable to you as a trader/consolidator.

Procurement of Supply (7-9 Strong) (4-6 Moderate) (1-3Weak)			
Relationship	Rating	Frequency/ Type of Transaction	Description
Farmers – Consolidator			
Farmer - Traders			

Consolidator - Trader		
Information Sharing on Technology and Price (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Relationship	Rating	Description
Farmers – Consolidator		
Farmer - Traders		
Consolidator - Trader		
Quality Control (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Relationship	Rating	Description
Farmers – Consolidator		
Farmer - Traders		
Consolidator - Trader		
Presence of Value-Added Services (7-9 Strong) (4-6 Moderate) (1-3Weak)		
Relationship	Rating	Description
Farmers – Consolidator		
Farmer - Traders		
Consolidator - Trader		

MAGSUKOL! ☐

Do you have any questions? Would you like to learn more about how we will use this data and other personal information that we collect (name, address, etc.)?

Yes

No

May we collect name, age, address/location, health and your household information?

Agree

Disagree

Name	
Place and date	
Signature	

Full text of consent form and privacy notice for surveys

What information do we use and why?

People in Need (PIN) would like to use your name, age, address/location, health and your household information, to conduct a survey that will help us to assess the needs and plan our projects in Basilan and Sulu.

We will collect and use this information only if you agree.

What do we do with the information?

We will use the information only for the above mentioned purposes.

Your information may be shared with the database operators, where your data is stored, external monitoring or evaluation consultants, our project partners, donors and/or auditors. Some of your information may be (exceptionally) stored outside of the EU; in such case, we make sure it is kept safe in line with our standards of data protection.

How long do we keep the information?

We will keep your information for a maximum of 5 years after the project ends for audit purposes.

What are your rights?

You do not have to agree with giving us your information. Even if you agree now, you can still withdraw your permission at any time in the future and ask for the data to be erased by contacting our Community Feedback and Response Mechanism (CFRM) at the following numbers:

CFRM Globe: 09454093239

CFRM SMART: 09062217222

Furthermore, you have the right to:

1. request access to the data we collect and hold about you,
2. receive this information in a commonly used and understandable format (e.g. an extract from the database in a paper or electronic form),
3. request more details about the data we collect and how and why we use it,
4. have your data corrected, restricted or deleted,
5. object to us processing your data,
6. contact us or lodge a complaint to the Office for Personal Data Protection in case you have any doubts about the way we use the data.

Our contact information

Člověk v tísnì, o.p.s. / People in Need Local office address: 3rd Floor VHW Building, Zone III, Zamboanga City

with its registered office at: Šafaříkova 24, Praha 2, 120 00, Czech Republic Identification No: 25 75 52 77, contact details of the Data Protection Officer: dpo@clovekv tisni.cz.

Signed informed consent for surveys
Short consent form for surveys

People in Need (PIN) would like to use your name, age, address/location, health and your household information, to conduct a survey that will help us to assess the needs and plan our projects in Basilan and Sulu. We will collect and keep the data only if you give us consent to it. We will keep this information for a maximum of 5 years after the project ends. Even if you accept now, you can still withdraw your permission at any time in the future and ask for your information to be removed.

Your refusal to participate in this survey and to allow us to collect your information will not affect your chances to receive assistance from PIN.

Your participation in this survey does not guarantee that you will receive assistance from PIN.

QUESTIONNAIRE FOR: COOPERATIVES/ASSOCIATIONS
Market Assessment for Coffee Value Chain

DISCLAIMER AND CONFIDENTIALITY: The conduct of this market assessment is initiated by the People in Need (PIN) organization. The results of this assessment will help the Leveraging and Expanding Agri-Aqua Production in Bangsamoro (LEAP) Project implementers to provide the necessary services in line with its goal of strengthening the resilience of agriculture and aqua-culture value chains, particularly coffee and its intercropping opportunities, in BARMM. Rest assured, your response to the questions will be considered and handled with utmost confidentiality.

Name of Coffee Association/Cooperative: _____ Date of Interview: _____

Office Address: _____ Contact

Number: _____

Name of Respondent (Representative Interviewed): _____

Position/Designation: _____ Contact

Number: _____

Year Association/Cooperative Registered : _____

Registered with: CDA Others _____

Total Number of Members: _____

No. of regular members: _____ No. of associate members: _____

Number of Coffee Farmer Members: _____

Of the total coffee farmer members, how many are (% estimate will do):

_____ IPs _____ Women _____ Youth _____ PWDs

1) Line of business as cooperative/association:

Coffee Farming Coffee Drying Coffee Processing

Coffee Trading (Buy and Sell) Lending

Other lines of business (please specify): _____

α. If your group/coop is into coffee farming:

ι. How many hectares is the common farm? _____

ιι. What coffee varieties are planted? Arabica Excelsa Liberica. Robusta

ιιι. Is it: Monocrop Intercrop

1. If intercrop, what other crops are planted? _____

ιιιι. Does the coop provide/spend for all the needed inputs and labor? Yes No

1. If no, who? _____

2. If yes, how are the labor paid and how much? _____

ιιιιι. What assistance (inputs, trainings, etc.) did your group receive related to coffee farming?

TYPE OF ASSISTANCE	SERVICE PROVIDER & YEAR	REMARKS (PAID OR FREE)

⌘. What is the volume of your harvest (in dried cherries with pulp) per month?

⌘. Who are the buyers?

PRODUCT FORM (as applicable)	VOLUME (kg)	BUYING PRICE (Php/kg)	FREQUENCY (weekly, monthly, etc.)	BUYER	LOCATION OF BUYER	MODE OF TRANSACTION (cash to cash, etc)
Red Cherry Beans (RCB)						

⌘. How much is the monthly income from coffee farming? _____

β. If your group/coop is into coffee drying, what is the arrangement?

ι. How much is the labor cost for drying? _____

ιι. Who does the drying? _____

ιιι. Who are the buyers?

PRODUCT FORM (as applicable)	VOLUME (kg)	BUYING PRICE (Php/kg)	FREQUENCY (weekly, monthly, etc.)	BUYER	LOCATION OF BUYER	MODE OF TRANSACTION (cash to cash, etc)
Dried Cherry Beans						

ι⌘. What assistance did your group receive related to coffee drying?

TYPE OF ASSISTANCE	SERVICE PROVIDER & YEAR	REMARKS (PAID OR FREE)

⌘. How much is the monthly income from coffee drying _____?

χ. If your group/coop is into coffee processing, what coffee products are processed?

PRODUCT FORM (as applicable)	VOLUME (kg)	BUYING PRICE (Php/kg)	FREQUENCY (weekly, monthly, etc.)	LOCATION OF SOURCE	COST OF PRODUCTION (per kg)	AVERAGE % MARK- UP UPON SELLING
Green Coffee Beans (GCB)						
Roasted coffee beans						
Ground coffee						
Powdered/instant coffee						
Others (please specify)						

ι. What are your quality requirements for each product type?

PRODUCT FORM (as applicable)	QUALITY REQUIREMENT
Dried Cherry Beans	
Green Coffee Beans (GCB)	
Roasted coffee beans	
Ground coffee	
Powdered/instant coffee	
Others (please specify)	

ιι. Does your group/coop provide information to your suppliers of your quality and volume requirement?

Yes No

ιιι. Are you satisfied with the quality of products from your suppliers? Yes No

1. Why or why not?

ιιιι. What are your observations in the quality of the coffee you procured during the last five years?

ιιιιι. How do you acquire your products?

Delivered to your processing area Pick-up from farmer's/trader's site

ιιιιιι. How do you see the supply of products in the next 5 years? Increase or decrease and why?

⌘. What is the manpower complement requirements in processing?
 Classifier, number _____
 Sorter, number _____
 Others, please specify and include number _____

⌘. What is the coop's/group's coffee product brand? _____

ιξ. Do you have product certifications?

Yes No

1. If yes, what are those certifications? (e.g., LTO/FDA, Halal, Organic, etc.)

2. If none, why?

ξ. Have your products received any recognition or awards? Yes No

1. If yes, kindly provide the information below.

NAME OF AWARD	BRIEF DESCRIPTION OF THE AWARD	AWARD GIVING BODY	YEAR GIVEN

ξι. Who are the buyers of your product/s?

PRODUCT FORM (as applicable)	VOLUME (kg)	NAME & LOCATION OF BUYER	BUYING PRICE (per kg)	FREQUENCY
GCB				
Roasted coffee beans				
Ground coffee				
Powdered/instant coffee				
Others (please specify)				

ξιι. What is your buyer/s' quality requirement per product form?

PRODUCT FORM (as applicable)	QUALITY REQUIREMENT
GCB	
Roasted coffee beans	
Ground coffee	
Powdered/instant coffee	
Others (please specify)	

ξιιι. What is the mode of transaction (delivered/pick-up, cash transaction)?

Delivered to the buyer's trading post

Pick-up from processing post

ξῑ. How do you transport your goods and how much is the transportation cost?

ACCESSIBILITY/ MOVEMENT	MODE OF TRANSPORTATION	HAULING COST (e.g., per kg/sack)
Farm to processing area		
Processing area to market		

ξῑ. How did you get your market information?

IN TERMS OF PRICE	IN TERMS OF MARKET

ξῑ. What assistance did your group received related to coffee processing?

TYPE OF ASSISTANCE	SERVICE PROVIDER & YEAR	REMARKS (PAID OR FREE)

ξῑ. How much is the monthly income from coffee processing? _____

δ. If your group/coop is into coffee trading (buy and sell) only, what products do you buy?

PRODUCT FORM (as applicable)	VOLUME (kg)	FREQUENCY	SOURCE OF PRODUCTS	BUYING PRICE	AVERAGE % MARK- UP
Red Cherry Beans (RCB)					
Dried Cherry Beans					
Green Coffee Beans (GCB)					
Roasted coffee beans					
Ground coffee					
Powdered/instant coffee					
Others (please specify)					

1. What are your quality requirements for each product type?

PRODUCT FORM (as applicable)	QUALITY REQUIREMENT (e.g., moisture content, appearance, etc.)
Red Cherry Beans (RCB)	
Dried Cherry Beans	
Green Coffee Beans (GCB)	
Roasted coffee beans	
Ground coffee	
Powdered/instant coffee	
Others (please specify)	

11. Do you provide information to your suppliers of your quality and volume requirement?

Yes No

1. If yes, how do you provide to your suppliers the quality and volume requirement?

11. Are you satisfied with the quality of products from your suppliers? Yes No

1. Why or why not?

11. What are your observations in the quality of the coffee you procured during the last five years?

11. How do you acquire your products?

Delivered to your trading post Pick-up from farmer's site

11. How do you see the supply of products in the next 5 years? Increase or decrease and why?

11. What is the manpower complement requirements in trading (e.g., driver, helper, classifier)?

- Driver
- Helper, number _____
- Classifier, number _____
- Others, please specify _____

11. What assistance did your group receive related to coffee trading?

TYPE OF ASSISTANCE	SERVICE PROVIDER & YEAR	REMARKS (PAID OR FREE)

ιξ. Who are the buyers of your product/s?

PRODUCT FORM (as applicable)	NAME OF BUYER	LOCATION OF BUYER	VOLUME (kg)	BUYING PRICE (per kg)	FREQUENCY
Red Cherry Beans (RCB)					
Dried Cherry Beans					
Green Coffee Beans (GCB)					
Roasted coffee beans					
Ground coffee					
Powdered/instant coffee					
Others (please specify)					

ξ. What is your buyer/s' quality requirement per product form?

PRODUCT FORM (AS APPLICABLE)	QUALITY REQUIREMENT (e.g., moisture content, appearance, etc.)
Red Cherry Beans (RCB)	
Dried Cherry Beans	
Green Coffee Beans (GCB)	
Roasted coffee beans	
Ground coffee	
Powdered/instant coffee	
Others (please specify)	

ξι. What is the mode of transaction (delivered/pick-up, cash transaction)?

- Delivered to the buyer's trading post Pick-up from trading post

ξιι. How did you get your market information?

IN TERMS OF PRICE	IN TERMS OF MARKET

ξ111. How do you transport your goods and how much is the transportation cost?

ACCESSIBILITY	MODE OF TRANSPORTATION	HAULING COST (per kg/per sack)
Farm to trading post		
Trading post to market		

ξ112. How much is the monthly income from coffee trading? _____

ε. If your group/coop is into lending, what financial product forms do you offer (coffee and non-coffee related)?

FINANCIAL PRODUCT FORM	PURPOSE	MAXIMUM LOANABLE AMOUNT	REQUIREMENTS (e.g., collaterals like post-dated checks, property title, etc.) & INTEREST RATE	TERMS OF PAYMENT

ι. What is the source of your lending fund?

- CBU Other source, pls specify _____

ι1. How has the repayment so far?

ι11. What assistance did your group receive related to lending?

TYPE OF ASSISTANCE	SERVICE PROVIDER & YEAR	REMARKS (PAID OR FREE)

ι12. How much is the monthly income related to lending? _____

MAGSUKOL!

Do you have any questions? Would you like to learn more about how we will use this data and other personal information that we collect (name, address, etc.)?

- Yes
 No

May we collect name, age, address/location, health and your household information?

- Agree
 Disagree

Name	
Place and date	
Signature	

Full text of consent form and privacy notice for surveys

What information do we use and why?

People in Need (PIN) would like to use your name, age, address/location, health and your household information, to conduct a survey that will help us to assess the needs and plan our projects in Basilan and Sulu.

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Člověk v tísni, o.p.s. / People in Need Local office address: 3rd Floor VHW Building, Zone III, Zamboanga City

with its registered office at: Šafaříkova 24, Praha 2, 120 00, Czech Republic Identification No: 25 75 52 77, contact details of the Data Protection Officer: dpo@clovekvtsni.cz.

Annex C Data Matrix Template

PROVINCE: _____						
MUNICIPALITY: _____						
Particular/Year	2017	2018	2019	2020	2021	2022
ARABICA						
Volume of Production (MT)*						
Area Planted/Harvested (Ha)						
Number of Bearing Trees						
ROBUSTA						
Volume of Production (MT)						
Area Planted/Harvested (Ha)						
Number of Bearing Trees						
EXCELSA						
Volume of Production (MT)						
Area Planted/Harvested (Ha)						
Number of Bearing Trees						
LIBERICA						
Volume of Production (MT)						
Area Planted/Harvested (Ha)						
Number of Bearing Trees						
Number of coffee farmers						
- Male						
- Female						
- IPs						
- Youth						
Number of coffee processors						
- Male						
- Female						
- IPs						
- Youth						
Number of coffee traders						
- Male						
- Female						
- IPs						
- Youth						
<i>*Note: 1) Please specify if what is the product form (is it red cherry beans or dried cherry beans with pulp)</i>						
<i>2) If recorded volume are in kgs only, kindly specify</i>						
<i>Youth = ages 15-24 years old per UN definition</i>						

List and Location of Coffe Farmers Associations/Cooperatives (As of September 2023)*

Name of Association/Cooperative	Address and Contact Details	Year Established

List and Location of Coffe Processors Associations/Cooperatives (As of September 2023)**

Name of Association/Cooperative	Address and Contact Details	Year Established

List and Location of Coffe Traders Associations/Cooperatives (As of September 2023)***

Name of Association/Cooperative	Address and Contact Details	Year Established

Annex D

List of Coffee Growers and Number of Trees in Lamitan City, Basilan, as of October 2023

NO.	NAME	BARANGAY	NO. OF TRESS
1	Elmert T. Dinglasa		3000
2	Belen G. Pagotaisidro		70 trees
3	Rosita G. Laquio	Look	15 trees
4	Dani Dalu		50 trees
5	Ruben G. Domingo		200 trees
6	Arnel Fernandez		10 trees
7	Susana G. Helen		10 trees
8	Lito J. Quiamco		625 trees
9	Anonia B. Juanillo	Baungos	15 trees
10	Alexander L. Lacabe		18 trees
11	Fernando Cotamora		1875 trees
12	Henry C. Helen		20 trees
13	Romeo Insisto		15 trees
14	Feliciansa Bustillo	Ulame	5000 trees
15	Rolando M. Bunal		50 trees
16	Cerila Areglado		625 trees
17	Rolando Velasco		400 trees
18	Narcisa B Democrito		20 trees
19	Jumdana G. Nur	Colonia	100 trees
20	Jocelyn D. Frejoles		50 trees
21	Rufino B Democrito		20 trees
22	Wevino Magsayo		15 trees
23	Norei S. Salahuddin		12 trees
24	Lina DG. Silay		60 trees
25	Jommy M Addani		100 trees
26	Munadjalan D. Sahoin	Balobo	20 trees
27	Clement T. Garcia		50 trees
28	Jocelyn B. Antig		15 trees
29	Edwin I. Mariano		50 trees
30	Jesus Macoycruz		50 trees
31	Jessica Etok		40 trees
32	Andy T. Langkahan	Cabobo	60 trees
33	Asikin M. Paskual		10 trees
34	Salihon D. Eok	Campo 1	80 trees
35	Roel T. Sanoy		100 trees
36	Joselito Alfaro	Bulingan	80 trees
37	Arlyn S. Andong	Maloong San Jose	1,290 trees
38	Abdulpatha Ismael	Tumakid	50 trees
39	Amin I. Cadra	Balas	100 trees
40	Sharip Bunkaril	Boheyakan	100 trees
41	Francisco M. Bernardo	Bohesapa	20 trees
42	Ibrahim P. Utoh	Larbeco	1,250 trees
43	SCARBIDC	Sta. Clara	62,500 trees
	TOTAL		78,240 trees

Source of data: Lamitan City Agriculture Office (CAO)

Loan Parameters



Ministry of Agriculture,
Fisheries and Agrarian
Reform



First-come-first-basis



Farmers and fisherfolk
cooperatives and
associations (FFCAs) engage
into enterprises



Payable within 3 years



P 100,000.00 per
cooperative or association



Zero percent (0%) interest



BARMM Wide



Six months grace period

Modes of Payment



The monthly payment will be every second
Monday of the month.



MAFAR Provincial Cashier

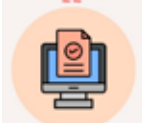


Furnish a copy of official receipt (OR) to
the MAFAR-AMAD Provincial officer

Eligible Borrowers



Registered FFCAs engage into Agri-fishery businesses



Must be enrolled in FFEDIS and E-Bangsamoro System;



Operational for at least one year;



With readily available agri-fishery products from farmers and/or fisherfolks



Members must be actively participating;



Must have no existing loans to any lending institution;



Bonafide residence and operating within BARMM jurisdiction; and



Not yet a beneficiary of both NGO's and GO's funding programs

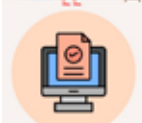


Members must be a farmer and/or fisherfolks registered to RSBSA

Eligible Borrowers



Registered FFCAs engage into Agri-fishery businesses



Must be enrolled in FFEDIS and E-Bangsamoro System;



Operational for at least one year;



With readily available agri-fishery products from farmers and/or fisherfolks



Members must be actively participating;



Must have no existing loans to any lending institution;



Bonafide residence and operating within BARMM jurisdiction; and



Not yet a beneficiary of both NGO's and GO's funding programs



Members must be a farmer and/or fisherfolks registered to RSBSA

Loan Process





People in Need (PIN) is an international non-profit organization providing humanitarian and development assistance and has operated in over 40 countries worldwide since 1992. PIN began in the Philippines serving communities affected by Super Typhoon Yolanda in 2013. Ever since then, our actions in the Philippines have focused on sustainable livelihood, social cohesion, women and youth empowerment, renewable energy, health, disaster resilience, and good governance.



Maranao People Development Center Inc. (MARADECCA) is a non-stock, non-profit service oriented institution catering to the needs of the Moro People in their quest for socio economic advancement and to struggle for peace and development. It adopts a people-based, community based, integrated and sustainable development framework that creatively reflects the aspirations of one Moro People.



UnYPhil-Women

United Youth of the Philippines-Women (UnYPhil-Women) is a non-profit women and youth focused organisation based in Cotabato City. The focus of its work with women is to help women who are subjected to violence, sexual and physical abuse, trafficking and other forms of discrimination. Over the years, its services have expanded to include peacebuilding, reproductive health and humanitarian response especially in the conflict-affected areas in the Bangsamoro.