

# STORY BOOK

## A LESSON OF YOUTH ENGAGEMENT IN AGRICULTURE SECTOR

Sponsored by:



In partnership with:



ASEAN FOUNDATION

Implemented by:

**rikolto**



eMpowering  
Youths

*Text and photos:*

Prima Interpares

Clarissa Rahmanita Idat

EYAA Volunteers

*Editorial and layout design:*

Igor Rangga

# eMpowering Youths Across the ASEAN (EYAA) Cohort 2







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# Opening Remark: Head of Program Rikolto

Data from UNDESA (2017) shows that the number of young people between 15 and 24 reached 1.21 billion. Projections suggest that the youth cohort will reach 1.29 billion (15.1 per cent of the world total) by 2030 and almost 1.34 billion (13.8 per cent of the overall population) by 2050 (United Nations, 2019 c); this means that one in six people in the world is youth. Looking at the data in ASEAN countries, the youth population is 213 million or 34% of the total (628,9 million, UNDESA 2017). Opportunities to work in agriculture tend not to increase in proportion with population increases, even as demand for food does.

There are some challenges to attracting young people to work in agriculture. One of them is a negative image of agriculture among young people. Working in small scale agriculture in low and middle-income countries is often a career choice of last resort with high risks and low financial reward.

We need to look beyond farm jobs to attract young people to agriculture. There is enormous potential for creating non-farm economic activities linked to agribusiness development around the food value chains.

Rikolto, in partnership with ASEAN Foundation and Maybank Foundation, developed an innovation with the title "Digital-based farming and agri-entrepreneurship to support youth engagement in the agriculture sector." The programme facilitates youth across ASEAN to initiate community development projects focusing on arts and culture, education, environment, and community empowerment.

"This programme successfully trained essential IoT and digitalisation in farming to **10 young farmers as champions**. The champions then shared their knowledge with the **40 young farmers** in Polewali Mandar."



Nonie Kaban.

This programme successfully trained essential IoT and digitalisation in farming to 10 young farmers as champions. The champions then shared their knowledge with the 40 young farmers in Polewali Mandar. Furthermore, those ten young farmers built four prototypes due to digital farming development: a sensor for the drying house and fermentation house, temperature sensor, sensors in solar drying unit, and an internet-controlled relay functioning as a switch. Not only that, but this programme also trained youth on how to build a digital marketing platform.

This initiative is proof of young people's enormous potential to adopt innovation and new technology to improve productivity and give added value. We hope to scale this programme with collaboration with other actors and involve more youth in agriculture.

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# Foreword: Executive Director of ASEAN Foundation

Amid the ongoing COVID-19 pandemic, the agriculture sector remains integral to the economy of ASEAN. In Indonesia and Viet Nam, the industry makes up 12.4% and 13.6% of the countries' GDP, respectively. At the same time, Cambodia, Lao PDR, and Myanmar have been dependent on agriculture-related activities for livelihood and employment (ASEAN Key Figures 2021). As the population of ASEAN grows, the region's agricultural productivity also must be boosted to improve food security and reduce poverty in the long term. As such, the need for impactful farm interventions has become more significant than ever.

A Lesson Learnt of Youth Engagement in Agriculture Sector Storybook chronicles the collaborative efforts of seven young changemakers of eMpowering Youths Across ASEAN programme and Rikolto International. This initiative is to promote the importance of digital-based farming and youth engagement as two of the most impactful interventions to improve the productivity of agriculture in the region through the implementation of the "Digital-based Farming and Agri-entrepreneurship to Support Youth Engagement in Agriculture Sector" project in Polewali Mandar, West Sulawesi, Indonesia.

The storybook gives a closer look at the people's journey behind the community project. They provide an opportunity for young people across ASEAN to integrate the rapid-evolving digital technology into the cocoa and farm industry. At the same time offer a learning platform for agricultural entrepreneurship and digital farming. It also aptly highlights the activities

"Amid the ongoing COVID-19 pandemic, the agriculture sector remains integral to the economy of ASEAN. In Indonesia and Viet Nam, the industry makes **up 12.4% and 13.6% of the countries' GDP**, respectively.



Dr. Yang Mee Eng.

within the project that enabled ASEAN youth to work with various partners in developing sustainable agriculture businesses in the region.

I believe that a Lesson Learnt of Youth Engagement in Agriculture Sector Storybook would provide much-needed insights into the importance of digital farming and youth role and participation in ASEAN. I am also hopeful that this storybook would inspire youth in the region to actively contribute to the agriculture sector as young people often have the advantages of technological capacity and digital literacy to produce innovative solutions.

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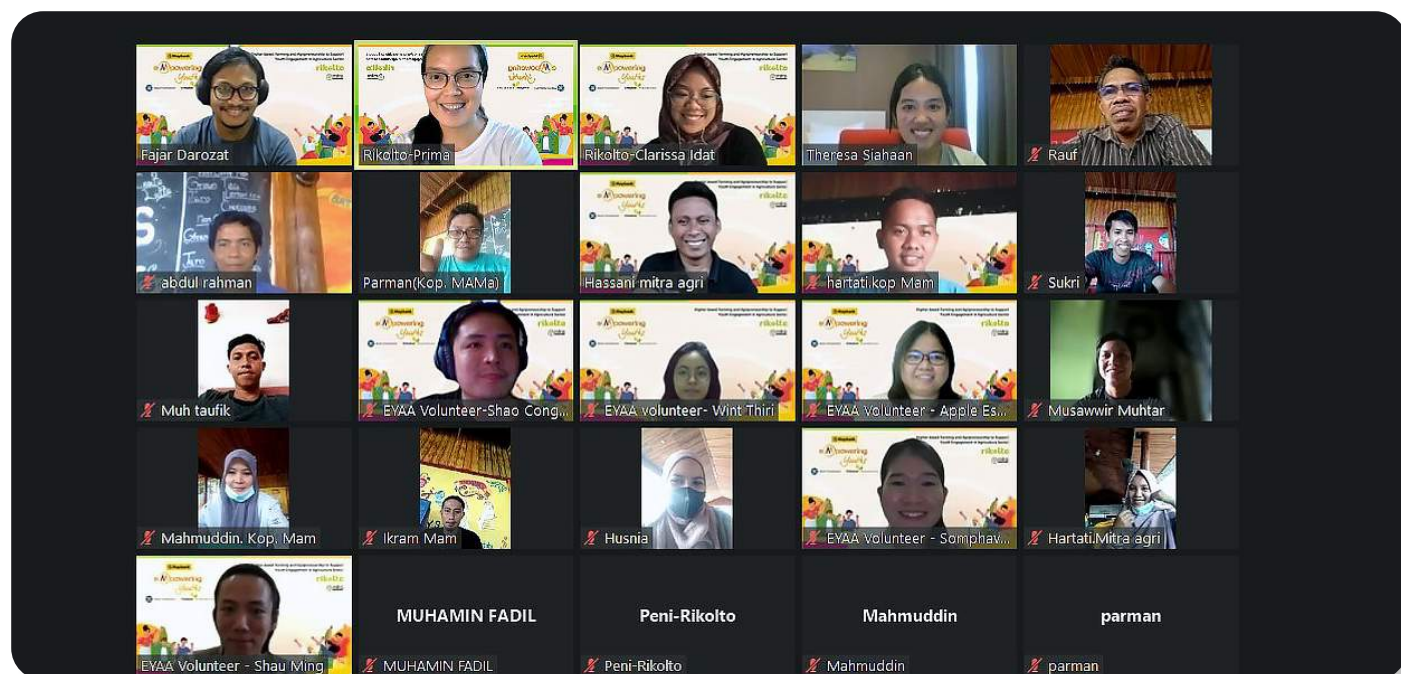
## About Empowering Youth Across ASEAN - EYAA

Rikolto is a Belgium-based non-governmental organisation that has been engaged in community empowerment through sustainable agriculture programmes in Indonesia for more than 40 years. ASEAN Foundation and Maybank Foundation chose Rikolto as one of their partners to implement the eMpowering Youths across the ASEAN Programme Cohort 2 or abbreviated as “EYAA”.

The EYAA is a collaborative programme by the ASEAN Foundation and Maybank Foundation dedicated to empowering youths and communities across ASEAN towards inclusive, sustainable development. The Programme facilitates youths across ASEAN to initiate community development projects focusing on arts and culture, education, environment, and community empowerment. The youth volunteers will execute the projects with civil society organisations or social enterprises across Cambodia, Indonesia, Malaysia, and the Philippines.

Rikolto carried out such a project in Indonesia with nine selected young people from various countries in ASEAN. Rikolto did so by strengthening the capacity of young people/young farmers engaged in the cocoa sector to integrate digital technology into the cocoa farm and business, including cultivation, post-harvest, to product marketing.

Based on the assessment done by Rikolto and its partners regarding youth and agriculture, it showed that there is little interest among educated youth to work in the agricultural sector. On the one hand, the lack of attractive job opportunities, services, and facilities in the cocoa sector encourages young people to migrate to urban areas to seek better opportunities. On the other hand, Rikolto believes that young people have enormous potential to adopt innovations and new technologies to increase production and add value. For example, the development of cocoa-derived products and the digitalisation of agriculture are the main allures for young people.



Rikolto believes that young people have enormous potential to adopt innovations and new technologies to increase production and add value.





# Project Overview

Problem statement:

Agriculture, as a vital sector for human life, is less attractive to young people.



Figure 1. The project location in Polewali Mandar.

## I Project's Background and Justification:

**P**olewali Mandar Regency (Figure 1) is located in the western part of Sulawesi Island at 3° 4'10" - 3° 32'00" South Latitude and 118° 40' 27" - 119° 29' 41" East Longitude. It borders on the regencies of Mamasa in the North, Pinrang in the East, and Majene in the West. Makassar Strait is in the southern part of the Polewali Mandar Regency. It has a total area of 2.022,30 km<sup>2</sup> which consists of 16 sub-districts; the largest sub-district is Tubbi Taramanu, with a total area of around 356,93 km<sup>2</sup> (equal to 17.65% of the total area of Polewali Mandar), and the smallest sub-district is Tinambung, with a total area almost 21,34 km<sup>2</sup>. Based on the Department of Agriculture and Husbandry of Polewali Mandar's data, the average rainfall throughout 2009 is 1.993,43 mm or 117,3 mm/day.

This project generally aims to enhance youth involvement in agribusiness development by creating an enabling environment. Furthermore, there are three specific objectives to be achieved from this project, namely:

1. To develop digital-based agribusinesses to encourage youth involvement in the agriculture sector.
2. To provide a learning platform for agri-entrepreneurship and digital farming.
3. To strengthen ASEAN youth collaboration in developing sustainable agriculture business and practices based on digitalisation.

### I.1 Present Situation:

**Present Situation - Population and Jobs:** The Polewali Mandar Regency population in 2020 is estimated at around 455.572 people, with an annual population growth rate of 0.5%. The population covers 89.162 households, with each of those households consisting

of 4-5 people on average. Campalagian sub-district is the most populated sub-district with 71.165 people, while Matangnga is the least populated sub-district with a total population of 6.932 people. The average population density in Polewali Mandar is estimated at 200 people per km<sup>2</sup>.

Almost 69.32% of the working-age population in 2020 actively did economic activities provided that they are considered a workforce. As much as 3.69% of the workforce is currently searching for jobs. In terms of job categories, most Polewali Mandar people, almost 60% of the working-age population, are working in the agriculture sector. Trade and industrial jobs come as second and third most preferred choices with 16% and 7.67% respectively of working-age people being absorbed.

**Present Situation – Economic Condition:** As mentioned before, 60% of the working-age population works in the agriculture sector in Polewali Mandar. Their source of income comes from trading cocoa, coconut, pepper and paddy. The calculation of the payment of a cocoa farmer is as follows with the assumption that every farmer has one hectare of productive land:

$$\text{Income} = 500 \text{ kg/ha (average productivity per year)} \times \text{IDR}28.000 \text{ (price per kg for bulk cocoa)} = \text{IDR}14.000.000 \text{ / year (average)}$$

Therefore, as illustrated in Figure 2, every farmer's household could generate IDR14 million per year per hectare while their expenses primarily for education resources (20%), housing (10%), food and other daily needs (50%), productive resources (10%) and savings (10%). For comparison, the provincial minimum wage in 2019 was IDR2.368.670 per month for West

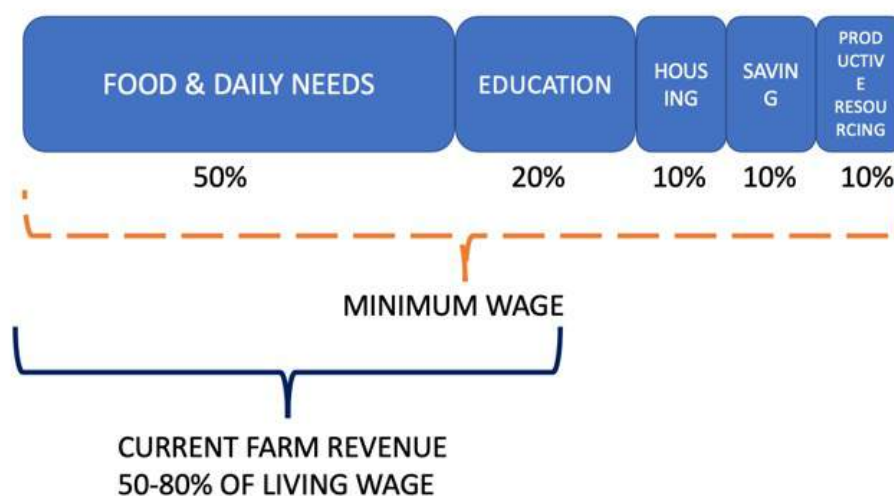


Figure 2. Distribution of farmer's incomes.

Sulawesi. So, incomes from the sale of cocoa beans only constitute 50-80% of the living wage.

**Present Situation – Farming Condition:** Every farmer household has 1.5-2 hectares of productive land. The average soil pH is 5.6-6.5 (acidic), suitable for cocoa, coconut, coffee, pepper, cloves, durian, paddy, corn, green vegetables, and nuts seeds. Cocoa rootstocks that have been planted in Polewali Mandar are high-quality rootstocks that have been attained from the Plantation Office since 1986. The rootstocks are initially from Medan (North Sumatera), even though many local (originally from Polewali Mandar) rootstocks farmers' use. Water resources availability is limited because fewer or limited timber and wood trees could support water holding pond capacity. Climate change affects the productivity and quality of cocoa produced in Polewali Mandar as the productivity rate is declining each year.

## I.2 Problem Analysis:

**Problem Analysis – Environmental Aspects:** Farmers have not yet adapted to climatic factors because many cocoa plants are prone to diseases, are affected easily by weather anomalies, and have low water retention capacity. Some areas in Polewali Mandar are vulnerable to natural disasters as they do not adopt landscape management standards. Farmers cannot utilise cocoa waste as organic fertiliser, and some still prefer forbidden chemical ingredients. These factors contribute to a continuous decrease in Polewali Mandar cocoa productivity each year.

**Problem Analysis – Cocoa Supply Chain:** Cocoa prices fluctuate and affect the global market while cocoa productivity keeps fluctuating, if not declining, because of pests and diseases and climate change. While cocoa prices are increasing, farmers do not benefit from it as there are lots of middlemen in the cocoa supply chain. But worth mentioning, farmers are keen to learn more to improve productivity with effective technologies.

**Problem Analysis – Role of Youth and Regeneration:** Based on sense-making discussions carried out by Rikolto and partners regarding youth, an educated young generation shows little interest in working in the agricultural sector. Lack of attractive employment opportunities, services and facilities in the cocoa sector drives youngsters to migrate to urban areas searching for better opportunities. However, youngsters have an enormous potential to adopt innovation and new technologies to improve production and add value. There are jobs in the cocoa sector that can attract youth, such as developing cocoa bean derivative products and introducing digitalisation in farming.

**Problem Analysis – Actions Done by Rikolto and Other Parties:** Regarding technology adoption, farmers are becoming aware of how technology could efficiently improve their farming methods and

production. Looking back to 10-15 years ago, farmers were directly harvesting and sun-drying for two days and selling the cocoa beans in dried bulk form. In the present situation, farmers adopt good and integrated post-harvest practices with key steps like fermenting the beans and drying with a solar-drying method. Almost 70% of cocoa farmers in Polewali Mandar already practice good agricultural practises with a side grafting system.

There are two vital infrastructure supports in Polewali Mandar developed. First, electricity availability increases with an availability rate of 90% for the population in Campalagian, Wonomulyo, Tapango, and Mapilli sub-districts. In comparison, only 30-40% of electricity is available for Luyo and Tutar sub-districts. Second, the communication system is relatively good, with 85% of Polewali Mandar cocoa farmers already operating handphones to quickly access cocoa prices and weather conditions and make transactions with buyers rapidly.



Contrary to the positive developments of vital infrastructure, farmers still lack the knowledge to utilise the infrastructure to improve their farming methods, specifically combat pests and diseases or manage water resources.





## II Purposes and Target of Beneficiaries:

There are positive infrastructure developments in Polewali Mandar, including electricity and communication systems, including internet data. The use of such infrastructure to improve the production and quality of cocoa beans is still limited. Therefore, Rikolto aims to integrate digitalisation with farming and agri-entrepreneurship to engage youth in the cocoa sector. Several key intervention strategies to enable environment are:

1. Engaging ASEAN youth to promote inclusiveness and attract youngsters in the Polewali Mandar cocoa sector to collaborate and learn together.
2. Creating excellent and comprehensive capacity building to encourage technology and vital infrastructure to create digitalised precision farming with efficient use of water resources and other productive resources.
3. Promoting utilisation of organic fertiliser that is produced from cocoa waste.

Rikolto is committed to creating more decent jobs and contributing to economic growth (as per SDG #8). Lots of jobs are created for youth in digitalised agribusiness. Not only that, Rikolto commits to making quality education (as per SDG #4) by facilitating capacity building activities to educate youth about how technology could transform agribusiness to the positive next level. Worth mentioning, Rikolto will be supporting SDG #13 (Climate Action) as digitalised precision farming will increase good water resources management and the utilisation of cocoa waste into fertiliser could reduce farm waste. Lastly, engaging youngsters from across ASEAN will support SDG #17, a partnership for the goals.

Targeted beneficiaries are 50 critical youth (equal to 50 households) from 25 villages already Rikolto's partners in previous and ongoing programmes. The age range is under 35 years old, with many women above or equal to 40%. Currently, their economic condition is at IDR14.552.881 per year (based on Rikolto's Farmer Survey in 2019), while Rikolto's ambition is for all cocoa farmers in Polewali Mandar can attain provincial minimum wage, which is at IDR28.572.000.

## III Project Title and Focus:

1. Project Title: Digital-based Farming and Agri-entrepreneurship to Support Youth Engagement in Agriculture Sector.
2. Project Theme: Community Empowerment. Rikolto, together with youth across ASEAN and ASEAN Foundation, will empower youth in the Polewali Mandar cocoa sector to integrate digital technology into cocoa businesses, including farming and agri-entrepreneurship.
3. Project Focus:
  - SDG #4 - Quality Education: capacity building in digitalisation and integrated sustainable post-

harvest practices.

- SDG #8 - Decent Jobs and Economic Growth: job creation in digitalised farming and agri-entrepreneurship.
- SDG #13 - Climate Action: sustainable post-harvest practices and utilization of cocoa waste to produce organic fertiliser.
- SDG #17 - Partnerships for the Goals: ASEAN Foundation and ASEAN youth involvement to achieve those previous three SDGs.

## IV Objectives:

### IV.1 Purpose:

To enhance youth involvement in agribusiness development through the creation of an enabling environment.

### IV.2 Specific Objectives:

1. To develop digital-based agribusinesses to encourage youth involvement in the agriculture sector.
2. To provide a learning platform for agri-entrepreneurship and digital farming.
3. To strengthen ASEAN youth collaboration in developing sustainable agriculture business and practices based on digitalisation.





## V Logical Framework:

## Digital-based Farming and Agripreneurship to Support Youth Engagement in Agriculture Sector



## OBJECTIVE

- To develop digital-based agribusinesses in order to encourage youth involvement in agriculture sector
- To provide a learning platform for agripreneurship and digital farming
- To strengthen ASEAN youth collaboration in developing sustainable agriculture business and practices based on digitalization

## ACTIVITIES

ONLINE KNOWLEDGE CAFE  
Speaker: Neurafarm & AgUnity

ONLINE STUDY  
Digital Farming

WORKSHOP  
Digital Farming\*  
(3 young farmer & 3 volunteers)

ONLINE KNOWLEDGE CAFE  
Digital Marketing

WORKSHOP  
Digital Marketing

## TIMELINE

1 October 2021

2 - 3 October 2021

12 Oct - 25 November 2021

5 November 2021

6-7 November 2021

## OUTPUTS

25

Villages

10  
Young farmer  
trainers50  
Young farmers  
empowered
 Raise  
awareness


Learning process & knowledge exchanges are carried out to support the cocoa farmer cooperative

3

Prototypes of digital farming technologies are built and ready for large scale production

3

Single origin fermented beans taste are defined

3

Product development roadmaps of 3 cocoa-based products are designed



One digital marketing platform for MAM to market its products digitally

2

Media coverages

## OUTCOMES

## COMMUNITY

1. Increased youth participation in agribusiness (on-farm and off-farm)
2. Improved agribusiness (on-farm and off-farm) process with digitalisation
3. Established linkages to and collaboration with other young Asean people in agribusiness development
4. A learning platform of agripreneurship are established

## ORGANISATION'S FRAMEWORK

1. More young people involve in agriculture particularly in cocoa value chain
2. Network expansion in development sector

\*in small groups

	Description	Indicators	Means of Verification	Risks/Assumptions
Purpose.	To enhance youth involvement in agribusiness development through the creation of an enabling environment.	The number of youth-led agribusinesses supported by cocoa actors.	<ul style="list-style-type: none"> <li>The Farmer Organisation Policy supporting youth involvement in its business.</li> <li>The presence of profitable youth-led business.</li> <li>Business documentation.</li> </ul>	<ul style="list-style-type: none"> <li>The youth community/farmers are willing to participate in the agribusiness.</li> <li>The Farmer Organisation is open to engage youth to support its business.</li> <li>The enabling actors (i.e., local CSOs, business development services, governments, university) are willing to support the purpose of the project.</li> </ul>
Objectives	O1. To develop digital-based agribusinesses in order to encourage youth involvement in agriculture sector.	<ul style="list-style-type: none"> <li>One digital marketing platform to showcase the cocoa beans profile and its derived products.</li> <li>Three prototypes of digital farming technologies.</li> </ul>	<ul style="list-style-type: none"> <li>The presence of the digital platforms.</li> <li>The presence of the prototypes of digital farming technologies.</li> </ul>	<ul style="list-style-type: none"> <li>The participants can apply the knowledge/skill gathered from the training.</li> <li>Each actor sees benefit from the partnership/collaboration of this project.</li> <li>Enabling environment is in place.</li> </ul>
	O2. To provide a learning platform for agri-entrepreneurship and digital farming.	<ul style="list-style-type: none"> <li>One digital marketing platform to showcase the cocoa beans profile and its derived products.</li> <li>Three prototypes of digital farming technologies.</li> </ul>	<ul style="list-style-type: none"> <li>The presence of digital marketing platform.</li> <li>The SOP of the tools.</li> <li>The SOP of the platform.</li> </ul>	
	O3. To strengthen ASEAN youth collaboration in developing sustainable agriculture business and practices based on digitalization.	<ul style="list-style-type: none"> <li>One digital marketing platform to showcase the cocoa beans profile and its derived products.</li> <li>Three single origin fermented beans taste are defined (based on soil and season) and three product development roadmaps of three cocoa-based products are designed.</li> <li>Online communication platform created i.e., WhatsApp group (1) and Facebook page (1) to exchange knowledge and information</li> </ul>	<ul style="list-style-type: none"> <li>The presence of cocoa-based products.</li> <li>The product formulation and SOP to produce the products.</li> <li>The presence of online communication platforms.</li> </ul>	

	Description	Indicators	Means of Verification	Risks/Assumptions
		amongst the youth volunteers and the young farmers.		
Outcomes (OC)	OC1. Raised awareness of young farmers, local communities and governments in the importance of digital transformation in cocoa sector.	<ul style="list-style-type: none"> <li>Three articles published in website.</li> <li>One publication published in mainstream media.</li> <li>1.413 cocoa member farmers of the cooperative; local community in 25 villages; and the government are aware of the importance of digital transformation in cocoa sector.</li> </ul>	<ul style="list-style-type: none"> <li>Media coverages.</li> <li>Event reports.</li> <li>Government or other actors' programmes supporting digital transformation in cocoa sector.</li> </ul>	<ul style="list-style-type: none"> <li>The cocoa actors are interested in and willing to support the topic proposed by the project.</li> <li>Each actor sees benefit from the partnership/collaboration of this project.</li> <li>Journalists are aware of the project theme as an appealing topic for media coverage.</li> </ul>
	OC2. Agri-entrepreneurship models in cocoa sector are created.	Minimum three agribusinesses of cocoa products developed after the project finished.	<ul style="list-style-type: none"> <li>Business documentation.</li> <li>Good practices documentation.</li> </ul>	<ul style="list-style-type: none"> <li>Each actor sees benefit from the partnership/collaboration of this project.</li> <li>Enabling environment is in place.</li> </ul>
Outputs (OP)	OP1. Key youth/young farmers are empowered in agribusiness and digital technologies.	50 empowered key youth/young farmers.	<ul style="list-style-type: none"> <li>Pre and post-test.</li> <li>Participant attendance list.</li> </ul>	<ul style="list-style-type: none"> <li>Young farmers are willing to learn.</li> <li>Young farmers have capacity to absorb the material given in the training.</li> </ul>
	OP2. Digital farming technology is built.	Three prototypes of digital farming technologies are built and ready for large scale production.	<ul style="list-style-type: none"> <li>The presence of digital farming tools disseminated.</li> <li>The SOP of the tools.</li> </ul>	<ul style="list-style-type: none"> <li>The participants can apply the knowledge/skill gathered from the training</li> <li>Enabling environment is in place.</li> </ul>
	OP3. Digital marketing platform is built.	One digital marketing platform built.	<ul style="list-style-type: none"> <li>The presence of digital marketing platform.</li> <li>The SOP of the platform.</li> </ul>	<ul style="list-style-type: none"> <li>The participants can apply the knowledge/skill gathered from the training</li> <li>Enabling environment is in place.</li> </ul>
	OP4. Knowledge exchange and benchmarking study are carried out (virtually).	<p>One virtual knowledge exchange and benchmarking study to support 1.413 farmer members of the farmer organisation.</p> <p>The quality of learning process and knowledge</p>	<ul style="list-style-type: none"> <li>Activity report.</li> <li>Lesson stories collected by the participants i.e., youth volunteers and young farmers.</li> <li>Communication materials to disseminate</li> </ul>	<ul style="list-style-type: none"> <li>The topic of learning is useful and provides value-added for the youth volunteers, the young farmers, and the farmer organisation.</li> <li>The participants are willing to share their experiences and knowledge.</li> </ul>



	Description	Indicators	Means of Verification	Risks/Assumptions
		<p>exchange (qualitative indicator):</p> <p>(1) Participants join the forum.</p> <p>(2) Participants join the forum, discussion and knowledge exchanges are built around the topic.</p> <p>(3) Participants join the forum, discussion and knowledge exchanges are built around the topic; learning stories are made by the participants.</p> <p>(4) Participants join the forum, discussion and knowledge exchanges are built around the topic; learning stories are made by the participants; communication materials are created and disseminated.</p> <p>(5) Participants join the forum, discussion and knowledge exchanges are built around the topic; learning stories are made by the participants; communication materials are created and disseminate; the farmer members benefit from the learning process.</p>	<p>learnings and knowledge generated during the project.</p>	
	OP5. Cocoa-based products developed by the group of local young farmers.	Three single origin fermented beans taste are defined (based on soil and season) and three product development roadmaps of three cocoa-based products are designed.	<ul style="list-style-type: none"> <li>▪ The presence of cocoa-based products.</li> <li>▪ The product formulation and SOP to produce the products.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The participants can apply the knowledge/skill gathered from the training</li> <li>▪ Enabling environment is in place.</li> </ul>
	OP6. Media coverages are made to disseminate the learning and knowledge produced in the project.	Minimum two media coverages at the local/national/regional levels.	The media mentions/hits i.e., offline and online media channels.	Journalists consider the issues raised as an appealing topic for media coverage.
Activities (A)	A1. Online Knowledge Cafe: Youth, Agribusiness, and Digital Technologies.	It includes the output-level indicator.	Activity report/Minutes of Meeting.	Not relevant.



	Description	Indicators	Means of Verification	Risks/Assumptions
	A2. Workshop of digital farming system (in small groups).	It includes the output-level indicator.	Activity report/Minutes of Meeting.	Not relevant.
	A3. Workshop of digital marketing platform (in small groups).	It includes the output-level indicator.	Activity report/Minutes of Meeting.	Not relevant.
	A4. Online study on craft chocolate maker that highlights season, soil and clone of the cacao beans.	It includes the output-level indicator.	Activity report/Minutes of Meeting.	Not relevant.
	A5. Workshop of product development roadmap and R&D processes.	It includes the output-level indicator.	Activity report/Minutes of Meeting.	Not relevant.





# About Rikolto

## Rikolto's history and core business

For more than 40 years, Rikolto, formerly known as Vredeseilanden Country Office (VECO), in Indonesia has continuously worked side-by-side with its partners. They are mainly Non-Governmental Organisations (NGOs), farmer organisations, national network organisations, and private sectors to realise Rikolto's goal to increase smallholder farmers' bargaining position and power.

Rikolto in Indonesia continues to innovate in strategies and program approaches to best reach its goal as a learning organisation. The new 2017-2021 programme focused on the holistic food system, from production to consumers. Rikolto aimed to create a new generation of profitable farmers enabled by innovative practices to meet the growing demand from urban consumers for sustainably produced agricultural commodities in a healthy environment.

Rikolto in Indonesia supports cocoa chain development in two locations, Sulawesi and Flores. Cocoa chain in Sulawesi consists of three areas, Polewali Mandar (West Sulawesi), East Luwu and North Luwu (South Sulawesi). In those two provinces, Rikolto in Indonesia collaborates with farmers' and non-governmental organisations, such as Wasiat, to build a good marketing and distribution system with the private sector under the Inclusive Modern Market program.

### The good results that have been achieved by Rikolto in Indonesia so far include:

- On the aspect of cocoa farming: for instance, through the support and facilitation of capacity building programmes on farmers' organisations, Mitra Agribisnis Mandiri, Masagena, Cahaya Sehati, and Mousong established business cooperation with PT Mars for the RA-certified cocoa. Aside from that, farmers in Polewali Mandar, North Luwu and East Luwu have diversified their farming practices to increase their livelihood. One example is the use of cocoa farms for beekeeping purposes (improving the livelihood system of East Luwu farmers). Another example is the utilisation of cocoa waste to produce certified organic fertilisers and pesticides in Polewali Mandar.
- On the women and youth empowerment: women and youth have started to play critical roles in several farmer organisations, including Chairperson of Masagena, Finance Manager and Savings and Loans Manager of Mitra Agribisnis Mandiri; and 25 Cocoa Doctors consisting of 14 Cocoa Doctors actively involved in Mitra Agribisnis Mandiri.

- On access to finance: Rikolto has also facilitated the farmer organisation (SIKAP cooperative) accessing loans from financial institutions.
- The district, provincial and central governments recognise the roles and existence of farmer organisation partners and therefore often involve the organisations in planning processes, facilitation of other organisations/groups and pilot development of the organic model. The partners have also received some government assistance.
- Rikolto has used and adapted several tools to improve the business capacities of farmers, such as Farmer Business School (developed by FAO and GIZ), MyCoop and Farm Business Calculation.



## RIKOLTO IN INDONESIA

More than 40 years continuously worked side-by-side with its partners.

The new 2017-2021 programme focused on the holistic system, from production to consumers.

25 Cocoa Doctors consisting of 14 Cocoa Doctors actively involved in Mitra Agribisnis Mandiri.



## Profiles of Seven ASEAN Youth Volunteers

### Apple Espino (The Philippines)

*"Volunteering is about shared knowledge and experience and integrating what you know as a volunteer and the community's needs. Volunteering is empowering. When communities are visited and the local people are listened to, there is a sense of belongingness. Through the lens of a volunteer and a visionary, I want to inform them that they too have an impactful role in feeding their people with sustainable and healthy food from this generation to the next."*



Volunteering is empowering.

#### PROJECT FOCUS

Environmental Diversity.

Community Empowerment.

#### TERTIARY EDUCATION

Wageningen University and Research (2017-2019) MSc Nutrition and Health (Epidemiology and Public Health).

University of the Philippines Los Baños (2005-2010) BSc Nutrition.

San Jose del Monte National Trade School (2001-2005) Secondary Educations.

#### FIVE MAJOR WORKS IN THE LAST TEN YEARS

Barangay Integrated Development Approach for Nutrition Improvement (BIDANI) Program (2019-present) Researcher.

Wageningen University and Research, The Netherlands (2017-2018) Organizer.

Philippine Association of Nutrition (PAN) Inc. and Philippine Society of Nutritionist-Dietitians (PSND) Inc. (2016-2016) Convention Program Assistant.

Boluntorismo PH (2016-2017) Event organizer.

Institute of Human Nutrition and Food, University of the Philippines Los Baños (2010-2012; 2016-2017) Training and Research Associate.

#### FIVE MAJOR ACCOMPLISHMENTS IN THE LAST TEN YEARS

Recipient, Scholarship Grant at Edema-Steernberg Foundation and Anne van den Ban Fund, Wageningen University and Research (2017).

Recipient, Education Grant at Sight and Life Foundation, Switzerland (2017).

## Musawwir Muhtar (Indonesia)

*"I am currently developing an application called Octopus. Octopus is a new waste management application to efficiently collect and recycle rubbish while creating a network to protect our local scavengers and small-wastes pickers throughout Makassar, South Sulawesi. Looking at the big picture, Octopus has desired to create more members and expand their network. Therefore, building trust among the community and stakeholders is a must. Facts are needed while at the same time marketing and communication strategy are also required. Octopus and I will value this EYAA Project as a practical learning process in prototyping and designing ideas to climb the top ladder regardless of the organisation goals."*



Building trust among the community is a must.

### PROJECT FOCUS

Community Empowerment.

Environmental Diversity.

### TERTIARY EDUCATION

Hasanuddin University (2010-2014) Animal Science.

Wageningen University & Research (2015-2017) Animal Science, M.Sc Track Entrepreneurship.

### FIVE MAJOR WORKS IN THE LAST TEN YEARS

Octopus (2018-present) Co-Founder & COO.

Save the Children (2017-2018)  
Project Assistant.

Global Innovation through Science & Technology (GIST) Tech-I, The American Association for the Advancement of Science (2016-present) Mentor.

Japan Environmental Education Forum (JEEF) (2015-2015) Scholar.

### FIVE MAJOR ACCOMPLISHMENTS IN THE LAST TEN YEARS

Philips Innovation Award (PHIA) at Philips Innovation Award (2017).

Shell Idea360 at Shell Idea360 (2016).

Young Social Entrepreneur (YSE) at Singapore International Foundation (2016).

Alumni Leadership Impact Award (ALIA) at East-West Centre (2016, 2017).

Young Leaders for Indonesia (YLI) at McKinsey&Co (2015).



## Nurizzati Balqis Binti Haji Hailen (Brunei Darussalam)

*"In my opinion, volunteering is a give and take. People give with what they can help with, including time, effort, knowledge, kindness, and love, so volunteers receive lessons and love from those around them. Volunteering enables people to learn, come together and collectively make an impact. Experiencing the same ups and downs during volunteering enables people to exchange ideas and collaborate to solve issues. Any project or cause is a collective effort. Volunteering can obtain partnerships that are crucial for mobility. Adopting a grassroots approach also does not create impact locally but also internationally."*



Any project or cause is a collective effort.

### PROJECT FOCUS

Environmental Diversity.

Community Empowerment.

### TERTIARY EDUCATION

University of Brunei Darussalam (2018)  
Sociology-Anthropology.

Meragang Sixth Form Centre (2016-2017) English  
A Level, English Literature, Sociology and History.

### FIVE MAJOR WORKS IN THE LAST TEN YEARS

Participated in Sea and Earth Advocate Camp in  
Philippines, YSEALI (2018) Participant.

Save Kampong Ayer (2018-present)  
Project Leader.

Brave (2018 - present) Co-founder and  
Project Leader.

Sekolah Cemerlang Abejess (Cemerlang Abejess  
School) (2018 [January – June]) Teacher.

Criminal Justice Division, Attorney General's  
Chambers (2017 (December) Intern.

### FIVE MAJOR ACCOMPLISHMENTS IN THE LAST TEN YEARS

Brave first project launching "Capacity Beyond  
Capability" at YSEALI (2018-present).

Grant winner for community project at Youth-  
setter community (2018).

Vice President of Executive of Safety, Health and  
Environment at Executive of Safety, Health and  
Environment of University of Brunei Darussalam  
(2018-2019).

Student Councils at Sayyidina Abu Bakar  
Secondary School and Meragang Sixth Form  
Centre (2013-2015 and 2016-2017).

## Ooi Shau Ming (Malaysia)

*"I plan to share my volunteer experience with my friends and colleagues when I complete the EYAA. Besides, I will continue to look for an opportunity to contribute back to the community. The first step might be teaching Python programming for free since I just completed my Master of Data Science. The programming skill is crucial as we move towards a digital society, and it can be a game-changer to the children who can master the skills."*



The programming skill is crucial as we move towards a digital society.

### PROJECT FOCUS

Education.

Community Empowerment.

### TERTIARY EDUCATION

University of Malaya (2018-2019) Master of Data Science with Distinction.

Universiti Utara Malaysia (2008-2011) Bachelor of Industrial Statistics with Honours.

### FIVE MAJOR WORKS IN THE LAST TEN YEARS

Maybank Investment Bank Berhad (2019-Present)  
Digital Business Strategy.

Allianz (2017-2019) Data Scientist.

Think big Digital (2016-2017) CRM Manager.

Schlumberger Integrated Solution (2014-2015)  
Petroleum Economic Analyst.

Citibank (2011-2013) Campaign Analyst.

### FIVE MAJOR ACCOMPLISHMENTS IN THE LAST TEN YEARS

Top Performer, Tech EDGE Petroleum  
Economist II (2015).

Top Performer, Tech Edge Petroleum  
Economist I (2014).

Deputy Vice Chancellor Gold Medal Award  
(2011).

## Shao Cong Koh (Singapore)

*"The EYAA will empower me to fulfil my aspirations in three ways. First, it will allow me to be part of the network of like-minded individuals and to contribute to the continued success of this vibrant and collaborative community. Second, the program will provide valuable mentorship opportunities. With proper support, guidance and encouragement, I am confident that I can broaden my professional skills and expertise. Third, the program will give me a chance to do the things I enjoy doing most – learning, building relationships, and contributing back to the community – and learning how to do these things well. At the end of the program, I aim to develop something tangible and eventually apply the leadership skills and training to benefit my community."*



The program will give me a chance to do the things I enjoy doing most - learning.

### PROJECT FOCUS

Community Empowerment.

Environmental Diversity.

### TERTIARY EDUCATION

Warwick Business School (2015-2016) MSc (Business) Accounting and Finance.

University of London International Program (2011-2015) BSc (Hons) Accounting and Finance.

Anderson Junior College (2008-2009) Science.

### FIVE MAJOR WORKS IN THE LAST TEN YEARS

MY World 2030 Asia-Pacific Advocacy Programme (A series of comprehensive advocacy activities led by the UNDP Bangkok Regional Hub, UNV Asia-Pacific and UN SDG Action Campaign) (2019-present) Field Advocate.

Youth Ag Summit 2015 (2015-2015)  
Singapore Delegate.

YTL Power Seraya (2013-2014)  
Responsible Energy Advocate Program.

Singapore Institute of Management  
(2013-2014) Peer Tutor.

### FIVE MAJOR ACCOMPLISHMENTS IN THE LAST TEN YEARS

2015 Youth AG Summit Essay Competition (Winner) at NYAA Singapore and Bayer Corp Science (2015).

Anderson Junior College Community Involvement Program Award (Gold) at Anderson Junior College (2009).

## Somphavanh Keochanla (Lao PDR)

*"I think volunteering is powerful work to improve the ability, pursue new experiences and create significant impacts on the community. Therefore, this program will gather youths with creative ideas and passion for helping society, aligned with the same targets. It will be powerful to make these projects successful and go through group discussion, exchange ideas, brainstorm in terms of the issues and the current circumstances of each country. It can share the potential plan and implementation to forward these project ideas. More importantly, the youths from various countries will develop new project ideas and find multiple options. It will be an excellent chance to collaborate with ASEAN youths. I ensure that ASEAN is one community and all ASEAN countries can achieve growth together by our cooperation."*



This program will gather youths with creative ideas and passion for helping society.

### PROJECT FOCUS

Environmental Diversity.

Education.

### TERTIARY EDUCATION

National University of Laos (2014-2018)  
Faculty of Environmental Sciences, Major of  
Development Planning.

Logos College (2015-2018) General English.

Laos-Japan Human Resource Development  
Institute (2015-2019) Japanese Language.

### FIVE MAJOR WORKS IN THE LAST TEN YEARS

Social Environmental Education and  
Development (2015-2017) Volunteer.

Mind Media Company (2018)  
Volunteer.

Ministry of Education and Sport (2019 [a month])  
Research assistant.

Ministry of Education and Sport, the project  
is supported by ADB (2019 [four months])  
Administrative Assistant.

Global Green Growth Institute (present) intern.

### FIVE MAJOR ACCOMPLISHMENTS IN THE LAST TEN YEARS

Exchange culture in Japan at JENESYS  
Program (2017).



## Wint Thiri Marn (Myanmar)

*"We need hope to make the world change a little or more. We do need hope, but one thing we need more than hope is action. Once we start to act, hope is everywhere. Most people make judges by sitting in their homes doing nothing and sharing posts on social media and blaming how useless the government and the system are. Good leadership includes the government, the people and voluntary works. Voluntary is pushing our hopes and dreams to reach our goals. We can learn to take on responsibility and gain a sense of community service by doing voluntary outside jobs. We begin to have confidence in ourselves and develop special interpersonal skills."*



Good leadership includes the government, the people and voluntary works.

### PROJECT FOCUS

Environmental Diversity.

Education.

### TERTIARY EDUCATION

University of Yangon (2014-2018)  
Industrial Chemistry.

### FIVE MAJOR WORKS IN THE LAST TEN YEARS

Recyglo (December 2018-February 2019)  
volunteer internship.

Yangon University Environmental Club  
(2017-2018) co-founder/organizer.

Kalayana Mitta Development Foundation  
(13 May 2017 -30 May 2017) volunteer.

### FIVE MAJOR ACCOMPLISHMENTS IN THE LAST TEN YEARS

Certificate in Leadership for change at  
Institute of Political and Civic Engagement,  
American Centre (2017).

Certificate in Organisational Development for  
Civic Engagement at Institute of Political and  
Civic Engagement, American Centre (2017).

Advanced Environmental Leadership Program at  
Kalayana Mitta Development Foundation (2018).



## Profiles of Young Cocoa Farmers

Nick name : Rahman.  
Village : Jambu Malea.  
Date of birth : 28 September 1994.  
Participated in EYAA program training:  
IoT and Digital marketing.

*"After attending the training for three days, I gained a lot of knowledge about digital marketing. From our understanding, we can develop digital marketing to sell products on a digital scale. Eventually, our products are known to people outside the province, even throughout Indonesia."*

We can develop digital marketing to sell products on digital scale.

### ABDUL RAHMAN B.



### ANNUR.

Nick name : Annur.  
Village : Pussui.  
Date of birth : 25 February 1993.  
Participated in EYAA program training:  
Digital marketing.

*"Through this training, I enrich my mind and gain knowledge beyond what I already have. I hope there is a follow-up to this training and the time given can be longer."*

I enrich my mind and gain knowledge beyond what I already have.





## ASLAN.

Nick name : Aslan.

Village : Tapango Barat.

Date of birth : 08 June 1997.

Participated in EYAA program training:  
Digital Marketing.

*"I joined this program to broaden my horizons and gain new knowledge. I hope, God willing, I can become a more helpful person for society."*

I can become a more helpful person for society.



## HARTATI.

Nick name : Tati.

Village : Duampanua.

Date of birth : 02 June 1993.

Participated in EYAA program training:  
IoT and digital marketing.

*"We hope to develop the knowledge that we have gained during the training, especially in our area. Thus, we can market our products to a broader scope."*



We can market our products to a broader scope.





Nick Name : Enna.  
Village : Tandassura.  
Date of birth : 08 January 1998.  
Participated in EYAA program training: IoT.

*"I want to increase my experience, enrich my knowledge, and increase my self-confidence. I also want to broaden my knowledge. I have gained new knowledge through this program that is good to learn and develop. In addition, I was finally able to explain to the community, especially farmers, the benefits of participating in the EYAA program. I can also put into practice what we have learned during the training."*

I was finally able to explain to the community, the benefits of participating in the EYAA program.



## HIJRANAH ABDULLAH.

Nick name : Nana.  
Village : Pussui.  
Date of birth : 20 April 1998.  
Participated in EYAA program training:  
Digital Marketing.

*"I attended this training to broaden my horizons and gain new knowledge. I hope to develop the knowledge that I have acquired and further strengthen it."*



I attended this training to broaden my horizons and gain new knowledge.





## HUSNIA.

Nick name : Nia.

Village : Wonomulyo.

Date of birth : 15 November 1993.

Participated in EYAA program training: IoT.

*"As long as I joined the training, I got a lot of experiences and new friends, furthermore, there was no discrimination between one another. Also, I learned about agricultural science and the internet of things (IoT) application."*

I learned about agricultural science and the IoT application.



## MAHMUDDIN.

Nick name : Udin.

Village : Tandassura.

Date of birth : 16 August 1992.

Participated in EYAA program training: IoT.

*"Through this activity, I gained many new friends and more knowledge about agriculture and IoT that I did not know before."*

I gained many new friends and more knowledge about agriculture.



## MUHAMMAD GHIFARI.

Nick name : Fari.  
Village : Kelurahan Pangalai, Ali.  
Date of birth : 26 March 1988.  
Participated in EYAA program training: IoT.

*"I have learned a lot about digital marketing. I hope that we can teach it to friends who need a solution for IoT problems from the knowledge we gain."*

I have learned a lot about digital marketing.



## MUH TAUFIK.

Nick name : Opik.  
Village : Bonde.  
Date of birth : 10 September 1995.  
Participated in EYAA program training: IoT.

*"After I studied it, the IoT program turned out beneficial for farmers. Through IoT, we learn many things, such as assembling and operating temperature measuring devices in drying and fermentation chambers. Hopefully, we can create a more sophisticated and valuable tool for farmers in the future."*

We learn many things, such as assembling and operating temperature measuring devices.



## MUTMAINNAH SULTAN.

Nick Name : Nina.  
 Village : Katumbangan Lemo.  
 Date of birth : 04 April 2003.  
 Participated in EYAA program training:  
 Digital Marketing.

*"My motivation for participating in this training is to gain insight and experience. I hope I can develop what I have learned from the training."*

My motivation for participating in this training is to gain insight and experience.



## NURSAM.

Nick name : Nursam.  
 Village : Tandassura.  
 Date of birth : 20 July 1999.  
 Participated in EYAA program training:  
 IoT dan Digital Marketing.

*"I attended this training to broaden my horizons and gain new knowledge that I could not get anywhere else. I hope that after this training, there will be a follow-up plan. Longer study time can also strengthen training."*

I hope that after this training, there will be a follow-up plan.



Nick name : Alli.  
Village : Tapango Barat.  
Date of birth : 10 May 1996.  
Participated in EYAA program training: IoT.

*"By participating in this training, I gain knowledge and experience about the world of digital technology. Hopefully, activities like this will always exist so that we as the younger generation will no longer be left out of information."*

I gain knowledge and experience about the world of digital technology.

## RAMLI.



## SURIAYANI.

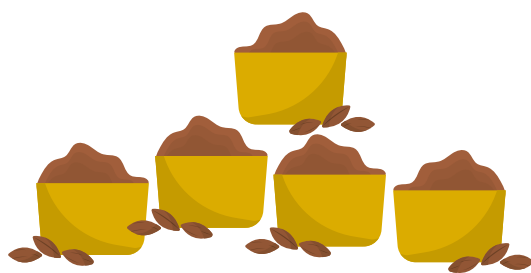
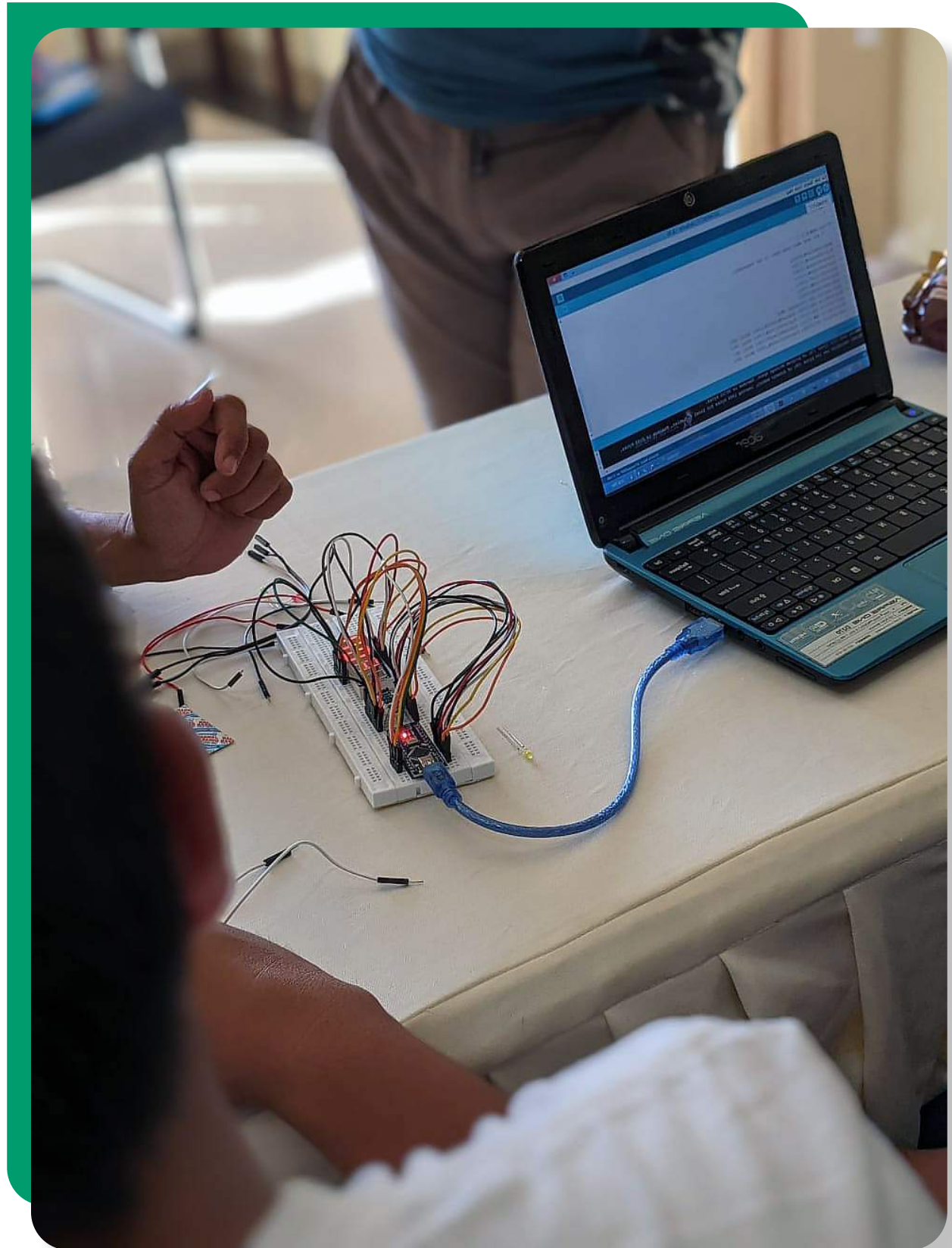
Nick name : Suri.  
Village : Tandassura.  
Date of birth : 31 December 1997.  
Participated in EYAA program training: IoT.

*"I joined this program to gain knowledge from the training provided. I hope the knowledge that I get can be helpful for the community."*

I hope the knowledge that I get can be helpful for the community.









## Output 1: Empowered Youth in Agribusiness and Digital Technologies

The target for the knowledge café is to empower 50 key young farmers. The achieved indicators for this activity are ten young farmer champions, two females and eight males, who are trained in fundamental IoT and digitalization in farming. These champions will share the knowledge with other 40 young farmers in Polewali Mandar.

The knowledge café was held virtually on Zoom. It was done to raise awareness of the young generation from Polewali Mandar that could apply digital technologies in the agriculture sector and solve current agricultural challenges. Rikolto also highlighted insights and demonstrated to the young age from Polewali Mandar that digital agriculture is a profitable and potential career.

Another highlight was to elaborate opportunities (such as shift perception of farming) and challenges (such as access to education, technical training and resources) for youth involvement in digital agriculture. Through this knowledge sharing, youth in the cocoa sector in Polewali Mandar are expected to be engaged in agriculture and promote the diffusion of

Twenty participants (nine females and 11 males) involved in the design thinking workshop including key young farmers, EYAA youth volunteers, and the CSO's team.

innovative technologies and practices into the cocoa farming and marketing system.

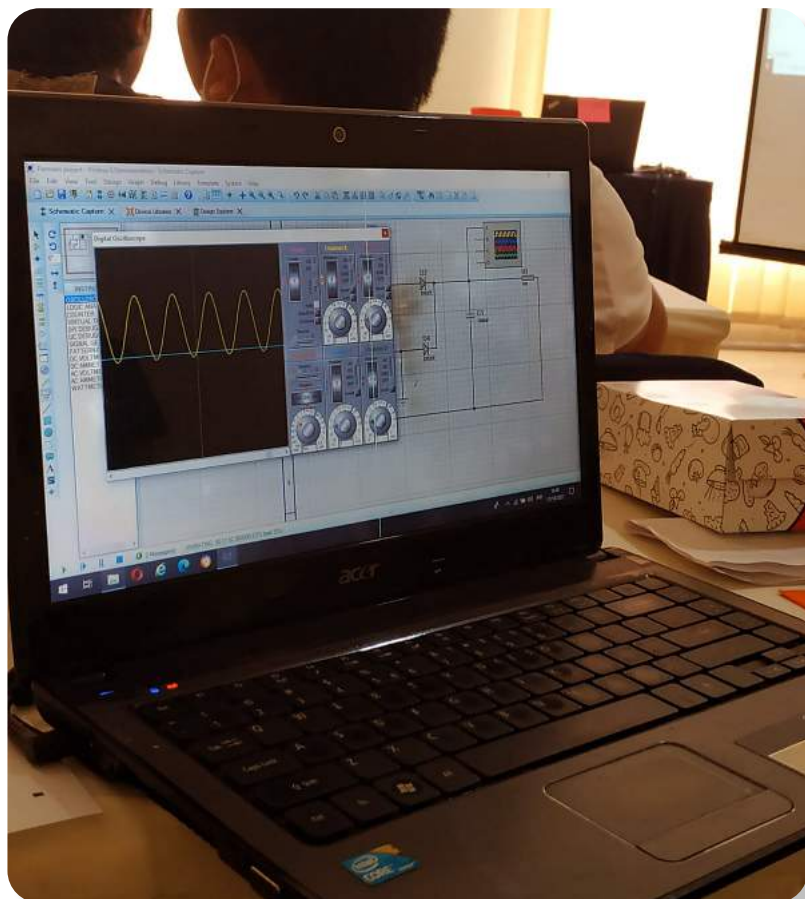
Rikolto carried out the knowledge café in informal or group discussions with several lead speakers who shared experiences and knowledge in digital marketing and farming—AgUnity representative to share insights, opportunities and challenges in product traceability, e-commerce and agriculture fintech. Bayer Crop Science, BIOPS Agrotekno, and

E-Fishery representatives share insights, opportunities and challenges in digital farming and innovation, digital farming technology using IoT and sensors, and challenges in incorporating the IoT and detectors in the fishery.

### Empowered youth in agribusiness and digital technologies

The virtual café was successfully held on 1st October 2021 at 02.00-04.00 PM (Central Indonesian Time) with 30 minutes panel discussion and four main questions to discuss. Twenty-four participants attended the café (11 females and 13 males).

The first question was how far the digitalized agriculture sector is promising to the point that youth choose to apply their knowledge in the cocoa sector. The background of the discussion was that in many rural communities, parents encourage their children to seek alternative career paths, which would take them away from the problematic, subsistence-based lifestyle of working on the family farm. It may be because farming is perceived as an unprofitable career path. The seasonality of planting harvesting adds to this perception, given that profits





from farming can come many weeks or months after significant financial investments.

Farmers' adoption was the second topic to discuss. Farmers in Indonesia are predominantly smallholder farmers in a rural area with low to none bandwidth of internet and minimal financial resources. At the same time, most digital agriculture technologies require an excellent internet network connection and high investments. Rikolto encouraged the participants to think about why farmers would adopt these technologies.

Following the second discussion, Rikolto asked participants about how farmers would incorporate a structured system with the current knowledge running by participants' companies. The forum was based on the fact that agricultural knowledge was often passed down generationally and within communities, but digital agriculture demands new knowledge of improved and advanced technologies.

While participants bring an innovative, tech-savvy perspective to solving some of the most challenging and or crucial problems in agriculture, why do they think their innovation is the solution for fundamental problems for agriculture? That would be the last question was to be answered.

An online digital farming workshop with ASEAN youth volunteers and the young farmers was held the following day. The workshop encompassed the design thinking process or idea formation. The young cocoa farmers and ASEAN youth volunteers, under the supervision of the technical expert, in small groups, discussed the problems of cocoa farming and potential innovative technologies to solve those problems. They had created the feasibility of the ideas pipeline

## Design thinking material.

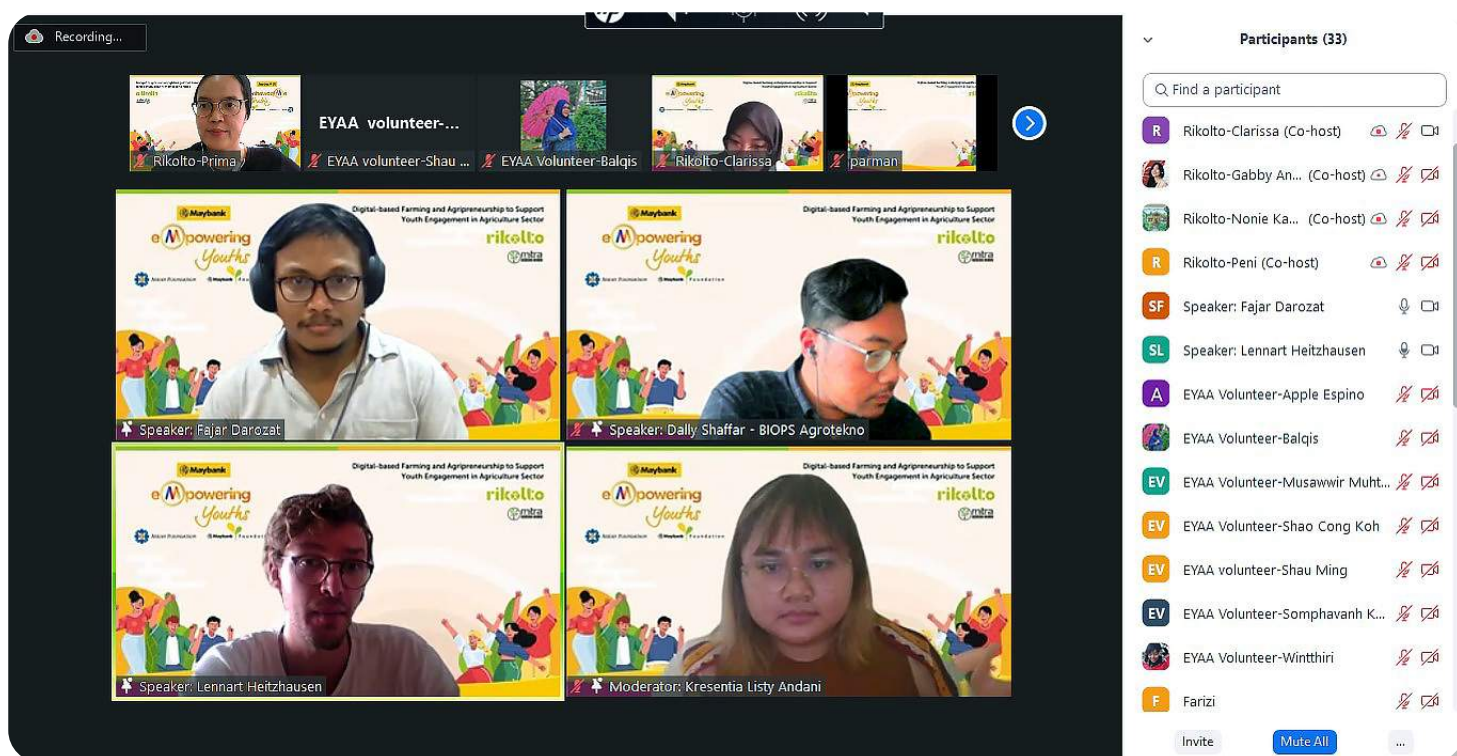
Workbook - Group 1.

Workbook - Group 2.

Workbook - Group 3.

of prototype development from this forum. Twenty participants (nine females and 11 males) involved in the design thinking workshop including key young farmers, EYAA youth volunteers, and the CSO's team.

Most of the participants appreciated and enjoyed the session. Nurizzati Balqis, one EYAA Volunteer, thought that the webinar was very informative, but she wanted to have more interactive sessions for the following activities. One of the young



Learning Modules.  
Testimony - Group 1.  
Testimony - Group 2.  
Testimony - Group 3.

cocoa farmers of Mitra Agribisnis Mandiri Cooperative, Ramli, expressed his appreciation towards this session. He acknowledged that adopting technology, like IoT in the cocoa business, positively impacts farmers and improves their livelihood in the long term.

Some participants, particularly the young farmers, were passively in English. They tended to be

shy to express their thoughts in English. Nevertheless, Rikolto had provided the translation of Indonesian-English and the reverse during the webinar through the chat boxes. The involvement of the Rikolto team in each working group consisting of young farmers and ASEAN volunteers also solved the language barrier. Musawir and Balqis could speak Indonesian and helped in translation. Detail results of the workshop can be found on the previous page.

### Intense learning with technical experts

The workshop was physically held from 11th to 22nd October 2021. Ten young farmers participated in a learning process about instrumentation and digitalization to support the development of digital-based prototypes in cocoa post-harvesting.

The ten young cocoa farmers consisting of eight male and two female participants have joined the series of intensive meetings in Ratih Hotel, Polewali Mandar, where Fajar Mukharom Darozat from E-Fishery

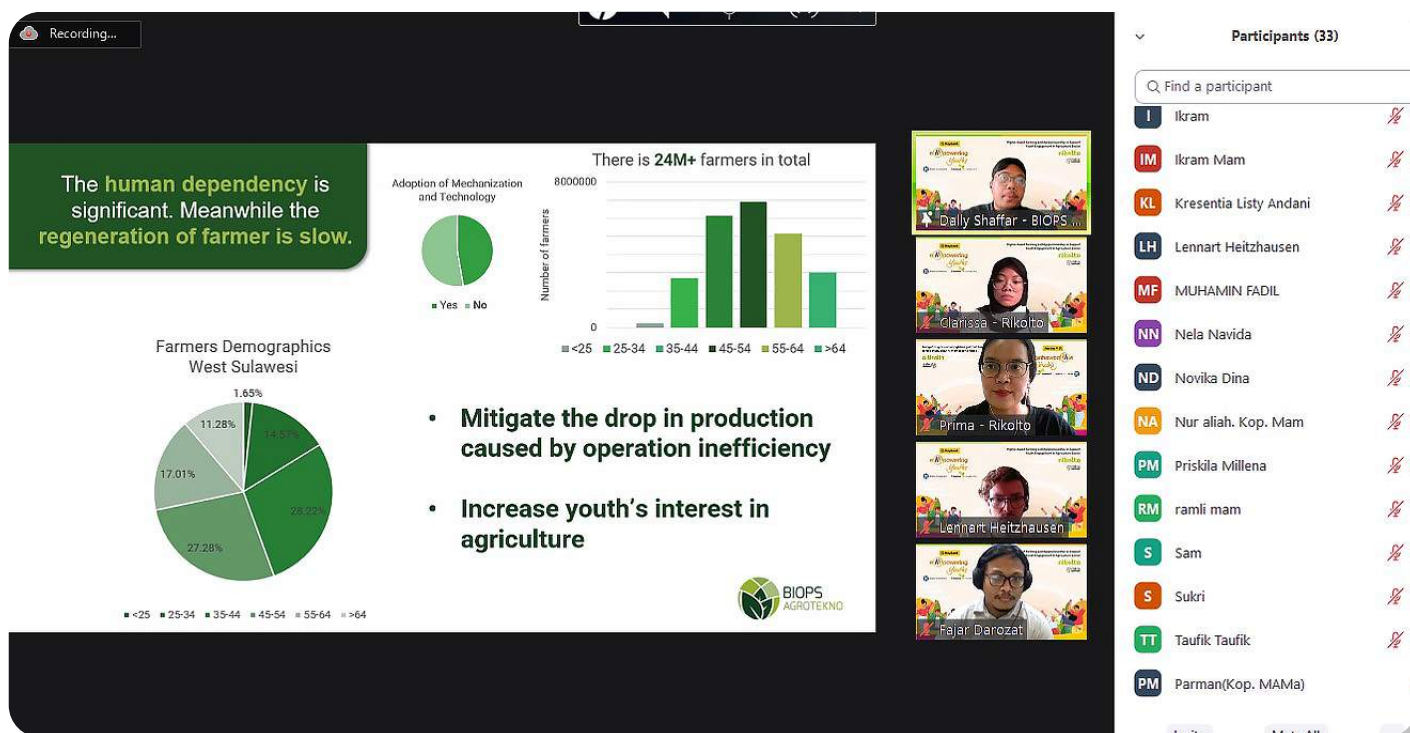
with particular specifications. Since only a few owned such types of equipment for the training, Rikolto made it into three small groups. Learning modules and testimonies can be accessed on the previous page.

### Reflection and lesson learned

Rikolto learned that conducting virtual events should consider the interaction between the presenter and participants. Rikolto needed to prepare virtual interactive activities in-between the webinar session. Nevertheless, Rikolto and the team has benefitted from the technology by using the online meeting platform. Such a hybrid set-up of the meeting needs good preparation and coordination.

Rikolto was looking for a translation feature in Zoom regarding the language barrier. Hopefully, Rikolto could use the part for the following session. Furthermore, Rikolto will encourage the young farmers

— — — — —



became a facilitator providing theoretical and practical training about IoT. He also facilitated instrumentation as a basic knowledge for developing digital farming. The trainer explained the concept of electronics, sensors, and programming languages in easy and practical ways. The hope was that the trainees could practice immediately without thinking about the relatively complicated electronics concepts.

In the meantime, some participants felt that the topic was quite complex and challenging for them as it was their first experience learning about such issues. However, they were curious and wanted to apply the skill as soon as possible as they knew that they could benefit from it. Each participant also needed laptops

to use Google Translate if they are not confident with their English capacity. At the same time, Rikolto has two young female farmers as champions involved in developing digital farming prototypes. They will assist and share the knowledge about agriculture digitalization to other 18 young female farmers.

Women involvement in this project is challenging; therefore, Rikolto invited two female speakers to the digital farming webinar to inspire women to participate in such activities.





## Output 2: Prototypes of Digital Farming Technologies are Built

The workshop encompassed the design thinking process or idea formation. In small groups, the young cocoa farmers and ASEAN youth volunteers, under the supervision of the technical expert, discussed the problems of cocoa farming and potential innovative technologies to solve those problems.

The Digital Farming Workshop blended virtual and physical outputs, including learning and knowledge exchanges, to support the design thinking process and idea development pipeline. The significant other production is that prototypes of digital technologies are built and functioning well.

Rikolto carried out the workshop in group learning with a technical expert supporting deliverables that include feasibility with integral factors: the function of the technology that tailored solutions to real problems in the cocoa sector, time limit, and availability of resources. The second deliverable was that backstopping is running well to support and ensure the development of technologies.

Through the workshop, Rikolto expected youth in the cocoa sector in Polewali Mandar to be engaged in agriculture and promote the diffusion of innovative technologies and practices into the cocoa farming and marketing system.

### Backstopping with experts on weekends

The workshop began with an online study of digital farming technologies. Rikolto successfully held it from 2nd to 3rd October 2021, where participants learned about design thinking or idea formation. The design process includes presenting Cocoa 101 to ASEAN youth volunteers and technical experts. Rikolto also carried out forum group discussions on the mining problems of Polewali cocoa farming and potential innovative technologies to solve those problems. At the same time, participants created the feasibility of the ideas and developed a pipeline of prototype development.

Intense learning with a technical expert has soon followed the online study. The teaching was conducted between 11th until 23rd October 2021. Participants formed group learning on weekdays where each group consisted of one representative of Rikolto, three ASEAN Youth Volunteers and three young generations of Polewali Mandar. On the weekend, they backstopped to a technical expert on which was carried out between 24th and 31st October 2021.

After participants completed the intense learning, they checked progress and developed changes with technical expertise. The meeting was held in group learning on weekdays, where each group consisted of one representative of Rikolto, three ASEAN Youth Volunteers and three young generations of Polewali. Again, backstopping to a technical expert was also needed and was conducted during weekends. All participants finished the workshops on 25th November 2021.



The Digital Farming Workshop blended virtual and physical outputs.

### How to utilise the Arduino UNO

One of the exciting materials presented in the workshop was how to install the Arduino UNO program. This program is a microcontroller, a micro-sized computer on an integrated circuit (IC) chip consisting of a processor, memory, and programmable

interface. A microcontroller is a microcomputer because inside the IC or chip, there is a CPU, memory, and I/O, which we can control with a program. The I/O is also often called General Purpose Input Output Pins (GPIO), which means pins that we can program as input or output as needed.

Participants use the Arduino UNO board in this material, which consists of ready-to-use hardware or microcontroller modules. In addition, there is also IDE software that is used to program so that participants can learn more efficiently. The advantage of Arduino UNO is that the user is not bothered with the minimum system and programmer circuit because everything is built-in on one board. Thus, participants can focus more on system development.

In addition to learning how to install Arduino UNO, participants were also given several other materials that were no less interesting, such as how to use the LED series program, turn on the LED with a



trimmer pot, and recognize the relationship between the LCD and the temperature sensor.

Rikolto hopes that after following this material, participants can install the Arduino UNO program on their respective computers correctly. In addition, so that participants can immediately practice the material that has been given, Rikolto added another discussion in the form of electronic concepts, sensors, and sufficient programming languages, so that participants do not have to worry about more complicated electronics concepts.

### The prototypes demonstration

The workshop then continued with the demonstration of prototypes. This demonstration is helpful so that participants can better understand the monitoring functions when operating sensors in drying houses and fermentation houses. Following are some crucial points about the prototype that the participants have captured.

Left photos: WIFI installation, blue switch relay, and drying sensor installation.

Right photos: Prototype monitor and fermentation box sensor installation.





## FOUR PROTOTYPES BEING DEVELOPED

**Main monitor.**

- The primary monitor in the drying house and the fermentation house is linked to the internet. The monitor also functions as a screen that displays all sensor readings.
- On the primary monitor, temperature and humidity sensors are used to measure the temperature and humidity of the environment outside the drying house. By comparing the two readings, one can decide whether it is necessary to replace the air in the drying room with fresh air. For information, RJ and RF are values measured by sensors in drying and fermentation houses.
- In addition, in the monitor, eight Os describe the status of the relay or switch. The number 0 means off, the number 1 means on. The readings from the sensors in the drying house and fermentation house are then updated to the cloud every minute.

**Temperature sensor of the fermentation house.**

- The temperature sensor used is waterproof with an accuracy of 0.5 °C and can read temperatures up to two digits behind the comma.
- The sensor is covered with damp cocoa beans. After some time, the sensor readings will appear on display.
- For your information, the three sensors can be connected at once to the display. At the same time, the temperature is measured every five seconds.

**Drying house sensor.**

- This tool has four sensors, including a temperature sensor, humidity sensor, light intensity sensor, and air pressure sensor.
- The readings from the four sensors are displayed at once through the display.

**Relay control.**

- It consists of eight relays that function as switches and can be controlled through the internet.
- Meanwhile, the control relay is connected to four fans. Control relays can also be connected to any device that can be activated remotely, such as room heaters, lights, water pumps, and others.





## Output 3: Digital Marketing are Built

Globally, chocolate consumption has boomed over the last decade. Consumption in Asia and Latin America is rising rapidly. At present, the European Union and North America represent 60% of the world's chocolate consumption. There is a worldwide need to create a more sustainable form of cocoa production that will boost productivity to meet future demand. Therefore, small-scale farmers, responsible for 90% of the global output, are vital to this revolution.

Farmers' regeneration is one of the defining factors in sustaining agriculture. By this, Rikolto wants to utilize digital platforms as an innovative way to make agriculture attractive again for the youth. In this implementation stage, we aim to build a base to broaden Polewali Mandar cacao farmers' access to the market using digital marketing platforms. We aim to foster collaboration between the young farmers and the competencies of the ASEAN youth.

Based on sense-making discussions carried out by Rikolto and partners regarding youth, an educated young generation shows little interest in working in the agricultural sector. Lack of attractive employment opportunities, services, and facilities in the cocoa sector drives youngsters to migrate to urban areas searching for better opportunities. However, Rikolto

believes that youngsters have an enormous potential to adopt innovation and new technologies to improve production and add value. There are jobs in the cocoa sector that can attract youth, such as developing cocoa bean derivative products and introducing digitalization in farming.

Concerning that, cocoa prices fluctuate and affect the global market while cocoa productivity keeps fluctuating, if not declining, because of pests and diseases and climate change. While cocoa prices are increasing, farmers do not benefit from it as many middlemen are in the cocoa supply chain. But worth mentioning, farmers are keen to learn more to improve productivity with effective technologies.

### How to rectify existing limitations

Concerning digital marketing in West Sulawesi, the previous platform by Mitra Agribisnis Mandiri (MAM), was only available in Bahasa Indonesia. The platform might be an issue in reaching out to a broader community unfamiliar with Bahasa Indonesia. Besides, the visualization of cocoa products can be improvised. Cocoa related farming activities can be included as a means to improve the content of the platform. Rikolto project aims to rectify these existing limitations.



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**TOWARDS A PROSPEROUS FARMER**

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## MITRA AGRIBISNIS MANDIRI

MAM adalah wadah bagi 1,413 petani kakao di Kabupaten Polewali Mandar termasuk para petani muda. Sebagai bagian dari pelayanan kepada anggotanya, MAM mengembangkan platform pemasaran "sederhana" untuk produk biji kakao premium dan produk turunan kakao yang dihasilkan oleh petani kecil untuk mendapatkan akses pasar yang lebih luas dan harga yang lebih baik.



**1,766.25**  
HA LAHAN



**1,413**  
ANGGOTA



**2,000**  
BINAAN



**706.5**  
TON COKLAT/TH

The implementation stage of the digital marketing platform was a follow-up to the previously held digital marketing webinar. In this stage, the consultants held the workshop to establish a digital marketing platform for the youth farmers and enable the youth farmers to use the platform. Rikolto expected the following results:

- Collect, review, and analyse necessary documents and activities to establish the marketing platform for the partnering Polewali Mandar cocoa farmers.
- Review what marketing platform(s) would be suitable for partnering Polewali Mandar cocoa farmers and assist the establishment of the platform.
- Strengthen the Polewali Mandar youth capacity by maintaining and managing the established platform.

### Participatory learning and action

Rikolto invited Muhammad Taufiq and the team from Rana Kolektif, a digital marketing service, utilizing their expertise to help improve the capacity of the Polewali Mandar youth farmers. Rana Kolektif had worked with various brands and institutions and improved their marketability. PT Pesona Mandiri, the company Rana Kolektif belongs to, consists of Rana Kolektif as brand direction studio and Nisi as a graphic design studio. The workshop was held from 14 to 16 December 2021 at Hotel Ratih Polewali Mandar.

In detail, Rana Kolektif explained digital platforms in agribusiness. The workshop was attended by 12 young people aged 20 to 24 years and are members of the Mitra Agribisnis Mandiri Cooperative. Rana Kolektif offers a variety of digital features and platforms to sell and market agribusiness products from the MAM cooperative. "The assumption is because most of the participants are college students or fresh graduates, they need to get a basic understanding of digital platforms and understand the processes that occur in them," said Taufiq.

Rana Kolektif used the participatory learning and action (PLA) method, with the aim that participants

can directly apply the presentation of the material provided. In the same session, participants can do trial and error. Thanks to this method, Rana Kolektif was able to adjust terms, deepen the material, and deliver material according to interactions with the participants.

The basic foundation of understanding actual Indonesian digital conditions and the introduction of the branding process and its derivatives is given in this workshop. These two things are the principal capital in trading on digital platforms. Participants must first understand the how-to and know-how of the digital world. "Currently, more and more entrepreneurs are using digital platforms. There are apparent differences, both visually and in written descriptions, regarding the products being sold," said Taufiq.

### Why digital marketing is important

The first day of the workshop was divided into two sessions. The first session is an introduction to digital marketing, which includes: what is digital marketing, the types of digital marketing, the customer journey of digital marketing, and what platforms are commonly used in digital marketing. We found that participants were unfamiliar with digital marketing because they only saw social media platforms as entertainment and could not differentiate between organic and advertising content. In addition, most of the participants are Facebook users instead of youth in big cities in Indonesia who use Instagram as a business showcasing platform.

Seeing this reality, Rana Kolektif used everyday language with the aim that participants could understand the material more quickly. Rana Kolektif also repeated the explanation of the material in the first session by asking the participants direct questions. "Thus, participants can absorb the material according to their respective understanding. They can also ask if there is something they don't understand," said Taufiq.

In the second session on the first day, Rana Kolektif presented material about branding, such as the definition of branding, why branding is essential,

and case studies related to colours, shapes, and stories. In this session, participants seemed more relaxed and quickly accepted the material presented. This indication can be seen from the participants' eloquence in answering and discussing the material presented.

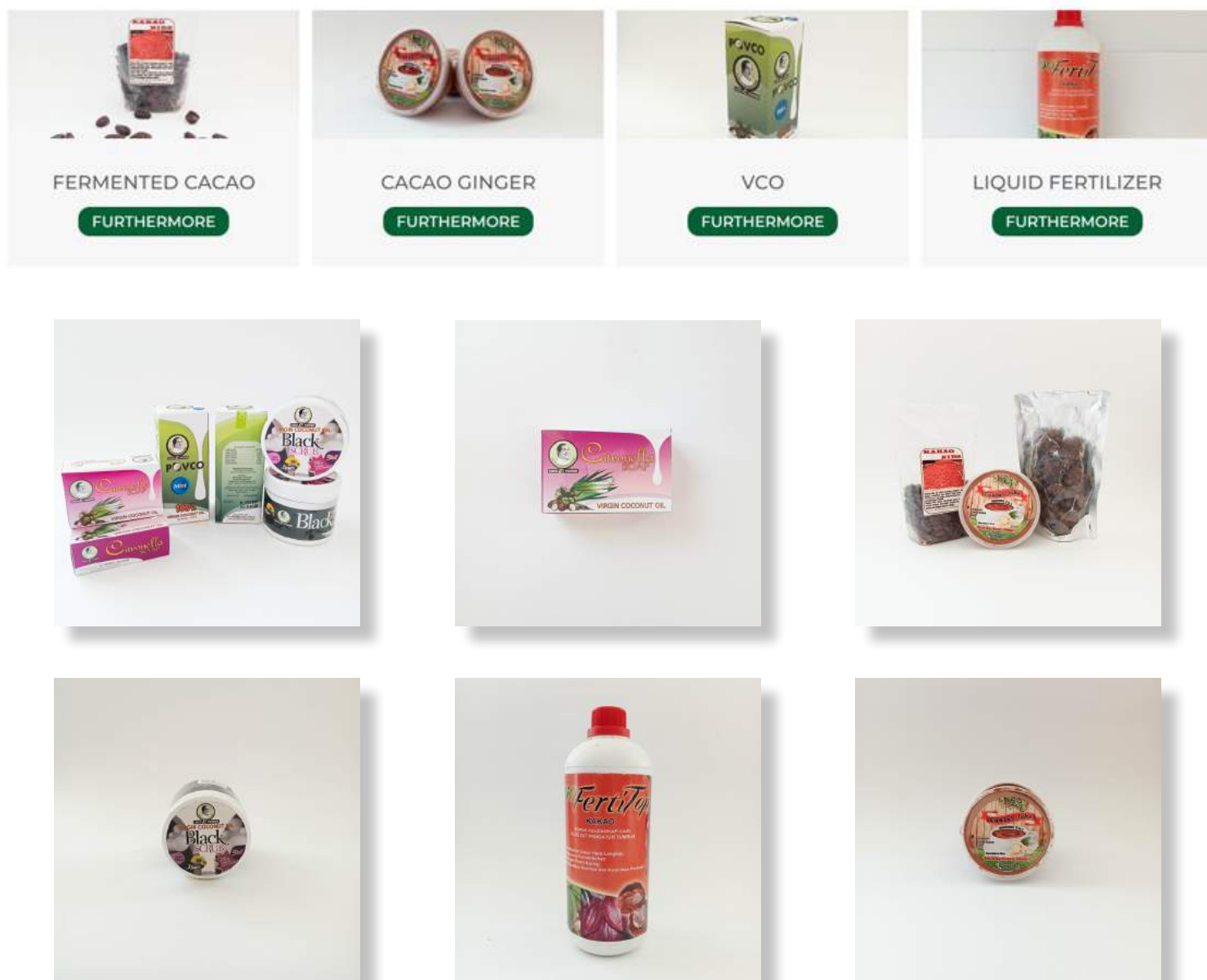
From the workshop results on the first day, we saw that there were two groups of participants. Group one is interested and easy to understand digital marketing materials. Group two is more interested in branding. Group one is more creative, and group two is more technical. So, we divided the participants into social media and digital advertising groups on the second day. The participants were also given to describe the product to be sold in one paragraph. The description is then used on Instagram and the marketplace.

## Develop skills in the right direction

Rana Kolektif found that participants still had difficulty distinguishing between production and promotion descriptions on the second day. However, one group can write a complete product description well, namely fermented cocoa products. Corrections are given directly through discussion so that participants can find out what improvements need to be made.

The second session continued with a discussion on social media and ad placement. Participants were asked to compile slides on planning to produce content in the social media group. In the ad placement group, registration is carried out for social media platforms, and participants will later use it for selling on marketplaces. Before closing the second session, participants were invited to produce their

## OUR PRODUCT



## OUR PRODUCT



### FERMENTED CACAO

▲ Weight 1kg

▣ Rp. 51,000/kg

Have you ever tried super quality cocoa beans?

Cocoa beans from Polewali Mandar are processed through several stages of fermentation.

Cocoa beans are put in a fermentation box, then left for 2 times 24 hours, this process is carried out for 3 times of transfer to maintain the temperature with a total fermentation time of 6 days. The fermentation process aims to bring out and strengthen the distinctive taste of chocolate, reducing the bitter and astringent taste in cocoa beans. Obtained pure cocoa beans with high quality.

photo content on social media and marketplaces using mobile phones. Participants are also asked to prepare when creating photos following social media and marketplace standards.

On the third day, the participants immediately implemented the data and results of the training on the first and second days. Rana Kolektif only helped if participants still have questions. The indicator of success on the third day is that participants can create a Facebook page and place one ad with various objectives. Participants are expected to be able to use and interact with potential buyers in the marketplace, in addition to knowing the procedures for placing and marketing products that are integrated with social media.

Rikolto concludes that participants have great potential in marketing their products digitally. On the other hand, there is still stuttering about digital platforms because participants do not use this platform daily. However, Rikolto believes that curiosity will arise, and with the foundation already laid, the participants will develop their skills in the right direction. Furthermore, participants will realize that the digital marketing utilization process requires a team with various special skills such as writing, concept development, production, planning, marketing, and ad placement. Participants can build visibility and disseminate more widely about their cooperatives with hands-on practice. The cooperative can also broadcast ongoing activities and advertise Polewali Mandar speciality products, with more complete and attractive product descriptions.



## Virtual Youth Volunteers Project

### Youth-Led Digital Marketing Platform Development to Support Cocoa Agribusiness in Polewali Mandar, West Sulawesi - Indonesia

People worldwide are moving towards digitalization and recognition of advancing sustainable agriculture. We should support the youth since they are at the forefront of these shifts. Their involvement is paramount. Our project investigates incorporating digitalization into agriculture (agri-entrepreneurship for profit, people and planet).

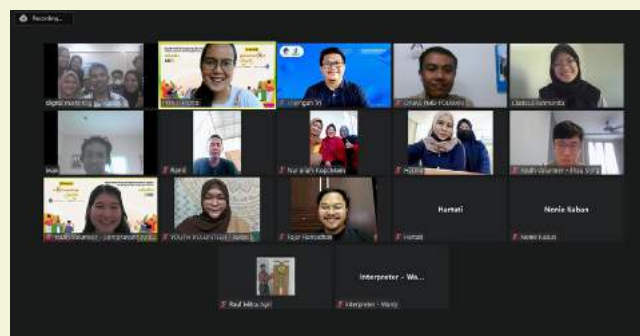
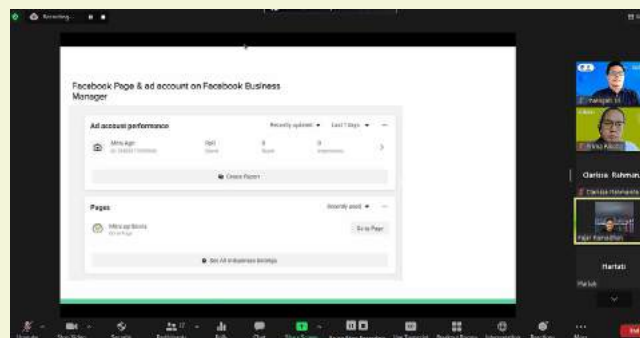
Our vision is to create a digital marketing platform that will serve as a source of information in publications, articles and personal stories of farmers on how the cocoa industry thrives. The other vision is the importance of using a digital marketing platform to raise the awareness of many in the cocoa industry. Second, means of product exchange for economic profit. And third, the means for local young farmers to engage with other people and institutions outside the village. Other Rikolto objectives include:

- To develop a digital marketing platform within two months with the young farmers to encourage youth involvement in agriculture.
- To raise awareness of young farmers, local communities, and governments in the importance of digital transformation in the cocoa sector.

#### The results

Rikolto organized several digital farming workshops to solve the real issue young farmers face. Rikolto gave youth exposure to cocoa farming and the fermentation process. Rikolto also invited Internet of things (IoT) experts to attend the workshops and share their experience of using IoT to tackle the issues faced during farming and processing. One of the youth volunteers - Musawwir Muhtar from Indonesia - flew to West Sulawesi and participated directly in the Digital Farming workshop. Other youths could not do so due to the COVID-19 travel constraints. Musawwir Muhtar was involved in the IoT workshop and assisted in information gathering in preparation for developing the Digital Marketing platform.

The involvement of other youth volunteers is in the development of digital marketing platforms. Youth volunteers had approached different web development companies to get the quotation for building the platform. After several discussions, they selected BiruDaun, a web development company in Indonesia. Youth volunteers initiated a meeting among BiruDaun, Rikolto (represented by Prima Interpares) and youth farmers to understand the requirements and objectives of the digital marketing platform.



#### Digital marketing is the bridge

Rikolto arranged subsequent meetings to facilitate the information gathering and showcase the digital marketing platform's minimum viable product (MVP). Youth were impressed by the MVP of the digital marketing platform and given some feedback on improving the customer journey. The Digital Marketing platform (<https://mitraagribisnismandiri.id>) was completed with the help of a Rikolto representative to obtain vital information from the young farmers. A mini launching event was organized on 18th December 2021. Guest speakers had shared their experience in developing and using the digital marketing platform and apps. Critical information includes how to thrive during COVID-19 and the method to increase usage of the digital marketing platform.

The digital marketing platform is the bridge between the final products of young farmers and cocoa lovers in Indonesia. Youth hopes that the platform can help reach a broader audience and provide exposure to the excellent cocoa products produced by the young farmers in West Sulawesi. It is an eye-opening journey for youth throughout the project, and hopes that the digital marketing platform can help the young farmers get more attention from cocoa lovers worldwide.





## Output 4: Knowledge Exchange and Benchmarking Study are Carried Out (Virtually)

Up to this point, Rikolto had facilitated training on the Internet of Things and its potential use to ten selected Polewali Mandar young farmers. They now had successfully become alumni of the activity.

In this activity, Rikolto aimed to empower other Polewali Mandar youths through a peer-to-peer learning process, hoping that young people interested in agriculture will continue increasing. Furthermore, the event also aimed to accelerate the exchange of knowledge that young IoT alumni have received.

The output of the training was to train other 40 young cocoa farmers, with at least 40% of the participants representing women. The participants originated from 15 villages of the Polewali Mandar District. Participants were expected to explain the material provided by alumni and know-how agriculture can use IoT stuff. The resource persons of this training were ten youth alumni of the IoT training, as follows:

1. Ramli.
2. Abdul Rahman B.
3. Sukri.
4. Husnia.
5. Hartati.
6. Moh. Taufik.
7. Mahmudin.
8. Moh. Al Farizi.
9. Ikram.
10. Moh. Ghifari.





The training was carried out in a group format where two large groups of 20 participants each. The training was held from 8th to 10th December 2021 at Café Batistuta, Polewali Mandar.

Rikolto preceded the training by introducing the Arduino UNO Module on the first day. Then proceed with learning about the Flashing LED Program. The second day was filled with learning the Row LED Program and the Traffic Light Program. On the last day, Rikolto gave training about turning on the LED with the button and practising lighting the LED with the Trimpot.

If you are interested in seeing more details about the contents of this training, you can directly access the links below:



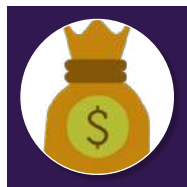
Training Module.

**Presentation.**

Learning an Evaluation  
from Participants.

**List of participants (new  
young farmers being  
involved).**



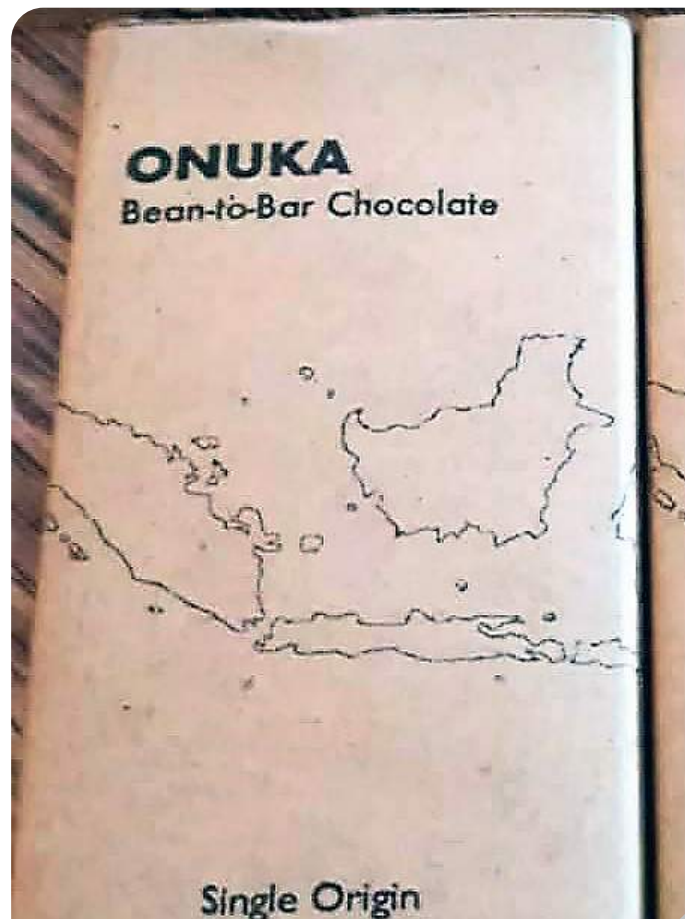


## Output 5: Cocoa-based Products Developed by the Group of Local Young Farmers

Rikolto had empowered the cocoa farmers in Polewali Mandar to carry out fermentation to improve the quality of cocoa beans since early 2021. Mitra Agribisnis Mandiri Cooperative had sent its samples to some artisan chocolate producers in Indonesia. It turned out two chocolatiers, Moodco from Malang - East Java, and Onuka from Makassar - South Sulawesi, favour the taste profile of the fermented cocoa beans produced by Polewali Mandar farmers. The young farmers of the cooperative have also developed cocoa-ginger drinking powders sold for the local market during the COVID-19 pandemic. The product has been featured in the digital marketing platform designed by the ASEAN Youth Volunteers.

Previously, the cooperative faced difficulty monitoring temperature at the fermentation boxes and the humidity at the solar dryer. The cooperative needed several trial-and-error processes to get the suitable fermentation procedure or method to produce quality fermented cocoa beans. During the Digital Farming activities, Rikolto, with the support of the ASEAN Foundation, has been developing the prototype of the temperature and humidity sensors to help the cocoa beans processing. Around 17 young farmers participated in the activity, and six of them were female.

Find out more about Onuka and Moodco single bar origins through following links:



Single Bar Origin - Onuka.

**Single Bar Origin –  
Celebes Moodco.**



**Note:** Rikolto had done the activities before the EYAA Programme started (there was a delay in EYAA's announcement and implementation). As part of Rikolto's cocoa programme, Rikolto decided to stick to its organisational plan's timeline. The decision was to support the cooperative in producing fermented cocoa beans; furthermore, the beans can become a single-origin cocoa bar and another cocoa-derived product, i.e., cocoa-ginger drink powder.





## Output 6: Media coverages are made to disseminate the learning and knowledge

The media gathering session aimed explicitly to introduce the EYAA project to the general public and build multi-stakeholder collaboration, including stakeholders in the Polewali Mandar with representatives of the ASEAN Foundation.

potential to adopt new technologies and innovations. Such adoption can increase production and provide added value in the agricultural sector. "Rikolto encourages the participation of young people with programs that can strengthen their capacity so that



### #1<sup>st</sup> Media Gathering – 23<sup>rd</sup> October 2021

Rikolto held the first media gathering on October 23, 2021 at the Ratih Hotel, Polewali Mandar, West Sulawesi. HM. Natsir Rahmat - Deputy Regent of Polewali Mandar, H. Hassani - Head of the Agriculture and Food Service of Polewali Mandar, Ajbar Abdul Kadir - DPD RI for the Electoral District of West Sulawesi, and I Nengah Tri Sumadana - Head of the Information and Communications Office of Polewali Mandar, attended the event.

In addition to introducing the EYAA project to the media, community, and stakeholders, media gatherings were held to encourage the younger generation to participate in the agricultural sector. Regeneration of farmers is significant, considering that elderly farmers currently dominate the farm workforce. The involvement of young people is the key to the adaptation and innovation of increasingly advanced agricultural technology. With the participation of young people, good and environmentally friendly agrarian cultivation and increasing agricultural productivity can be sustainable.

Nonie Kaban, Head of Program at Rikolto Indonesia, said that young people have enormous

they can continue to grow," said Nonie. Rikolto was chosen to run a project entitled "Agriculture and Digital-Based Entrepreneurship to Support Youth Involvement in the Agricultural Sector".

Meanwhile, H. Hassani, Head of the Polewali Mandar Agriculture and Food Service, invites young farmers to adopt the use of technology so that they can adapt to the digital era 4.0. All stakeholders need to encourage millennials to manage all aspects of agriculture in a modern way, including cocoa. Young people need to be shown that technology can solve agricultural problems. "I hope that young people who have attended Rikolto training can share their inspiration and become an example for the community. Either as farmers or entrepreneurs who use technology," said H. Hassani.

A total of 10 young people from the Mandiri Agribusiness Partner Cooperative were selected to participate in the Training of Trainers (ToT) activities. They participated in intense training from 11 to 22 October 2021. During the training, they developed digital technology that can improve cocoa beans' efficiency, productivity, and quality. After the training, it is hoped that each participant can train four other young people. There will be 50 young farmers who have an entrepreneurial spirit, creativity, and basic



knowledge about digital agriculture. Rikolto and the ASEAN Foundation also encourage women's involvement through this activity. Of the 50 young farmers, 20 of them are women.

One of the exciting aspects that became the central part of the program was the involvement of young volunteers from several ASEAN countries. Even though they are far apart, they help each other find solutions to the challenges faced by local communities in their countries. Rikolto selected seven young people from seven ASEAN countries to join the program at Polewali Mandar. They collaborate to strengthen the capacity of young farmers in Polewali Mandar. In particular, they are also developing a digital platform that can help cocoa marketing more broadly.

Dr Yang Mee Eng, Executive Director of the ASEAN Foundation, said that through this project, ASEAN wants to increase the spirit of participation of the younger generation of agriculture with technology. "Young people are the future leaders of ASEAN. We want to encourage them to be actively involved in transforming the agricultural sector so that they can increase their income in the community," said Dr Yang Mee Eng.



## #2<sup>nd</sup> Media Gathering – 19<sup>th</sup> November 2021

On the second event, Rikolto once again invited H. Hassani, Head of the Agriculture and Food Agency of Polewali Mandar District. Fajar M. Darozat (the IoT trainer) later explained IoT (Internet of Things), its potential for solving agriculture's problems, and what prototypes have been developed with young farmers from Polewali Mandar.

Hassani emphasized that today's agriculture must be of business value with integrating technology in agriculture. As a Polewali Mandar District Government representative, he appreciated and thanked Rikolto for supporting and equipping the cocoa community with such capacities.

Thanks to technology, the representative young farmers could live stream and exhibit how to operate the prototypes from the Processing Unit, located in a separate location. Rikolto and the team have benefited from the technology by using the online meeting platform. Such a hybrid set-up of the meeting needs good preparation and coordination.

The EYAA just notified their monitoring visit around one week before the event. Therefore, Rikolto thought it was good to have a media gathering to introduce the EYAA programme to the public and expand the network amongst stakeholders. However, limited time and resources to prepare the location of visits and media gatherings while implementing the project was a challenge for Rikolto and its partner in Polewali Mandar. Thanks to the team having good collaboration and networks with the Government, media, and other stakeholders to make it happen. A total of 37 journalists attended the gathering.

In a hybrid meeting setting, synchronization between the resource person and audience through a virtual platform, i.e., Zoom, became a challenge due to



internet stability. There were some blank spots in the meeting area in Polewali Mandar.

As a follow-up action, Rikolto and the team should ensure such an aspect by having a prior coordination meeting with the local team and resource person. Rikolto also drew lessons to better prepare for the events that engaged wider communities.

Press release and media coverage can be found through these links:

- [Press release](#): Pertanian dan Kewirausahaan Berbasis Digital untuk Mendukung Keterlibatan Generasi Muda di Sektor Pertanian.
- [Sindo News](#): Dukung Pemuda di Polewali Mandar, Rikolto Dorong Pengembangan Wirausaha Pertanian Berbasis Digital.
- [Polewali Mandar TV](#): eMpowering Youth Across ASEAN.
- [Polewali Mandar TV](#): ASEAN Foundation-Rikolto Berdayakan 10 Anak Muda Polman untuk Agripreneurship Berbasis Digital.
- [Media Indonesia](#): Pertanian Berbasis Digital untuk Menjaring Keterlibatan Anak Muda.
- [Radar SULBAR](#): Generasi Muda Didorong Menjadi Petani Milenial.
- [Pattae dot Com](#): Rikolto Indonesia - Launching Produk Pertanian Berbasis Digital di Polman.
- [Radar SULBAR](#): DISTANPAN Apresiasi Teknologi Ciptaan Pemuda Tani Binaan Rikolto.
- [Polewali Mandar TV](#): PEMKAB Polman Launching Produk Digital Berbasis Pertanian Kakao.











## Testimonies

### Ramli, Cooperative Cadre and Young Farmer.

*"On behalf of my young friends in the Mitra Agribusiness Mandiri cooperative, I would like to thank Maybank, ASEAN Foundation and Rikolto for organizing this activity. With this activity, we, as young people engaged in agriculture, are greatly helped in absorbing science and technology. We used to farm in the old way, but we can innovate and create valuable tools to help farmers work with this. In addition, innovation can increase our income as farmers."*

*Activities like this also encourage the interest of the youth to return to work in the agricultural sector. We used to think that farming was troublesome. It turns out that with a touch of technology, many things can be more manageable. We hope that activities like this can be held more often to create new knowledge and reduce the workload on the farm. It also increases farmers' income."*



### Hassani SP., MMA., Head of the Agriculture and Food Service of Polewali Mandar.

*"Thank you for choosing Polewali Mandar as a pilot project that has yielded maximum results. Hopefully, we can maintain this cooperation. We will continue to support Rikolto's activities in Polewali Mandar, and hopefully, Rikolto can develop it into other commodities besides cocoa."*



## Rauf, Mitra Agrisbisnis Mandiri Cooperative Management.



*"IoT and digital marketing are new sciences for our organization, so there needs to be an advanced class. Thus, the benefits will be felt for both participants and organizations when creating innovations in the agricultural value chain, especially cocoa. Fajar Darosat's class was good, although we still need more practice with some prototypes. The participants will better understand the advantages and disadvantages through practice."*

*Regarding the digital marketing class given by Taufiq and Fajar, it needs to be done more gradually. The output is also adjusted to the participants' ability so that it is more measurable. In similar programs, it is better for planning to be discussed earlier so that the objectives and outputs of activities can be more measurable. The implementation time should also be longer, for example, six months or one year."*

## Nurizzati Balqis, EYAA Volunteers from Brunei Darussalam.



*"One of the greatest and invaluable things I obtained from being an EYAA volunteer for Rikolto is knowledge about agriculture and the importance of innovation. It was great to see the willingness of the participants to participate, contribute and communicate regardless of the language and internet barriers. It was undeniably challenging for me to be involved with online programs, but every online event was welcome with enthusiasm, which made every second valuable and enjoyable. Most importantly, the participants and the committees' relationship were very friendly and welcoming. The connection made me feel comfortable and excited to communicate regardless of the barriers as a volunteer."*



## I Nengah Tri Sumadana AP, M.Si, Head of the Information and Communications Office of Polewali Mandar.

*"I am thrilled and proud of Rikolto's active role in integrating digital technology into agriculture in the cocoa sector. A breakthrough that the local government has not optimally pursued. The interest in the agricultural industry has not yet developed due to the unattractiveness. However, through the adoption of innovation and technology by Rikolto towards youths can become role models and be replicated to other agricultural sectors."*

*Replication of role models is crucial, considering that the agricultural, plantation, livestock, fisheries and marine resources in Polewali Mandar are very potent and are the largest in West Sulawesi. I hope Rikolto will continue to synergize with various stakeholders for sustainable empowerment. Thus, the potential of these resources can later be managed by local young people with an increasingly adequate innovative farming capacity."*

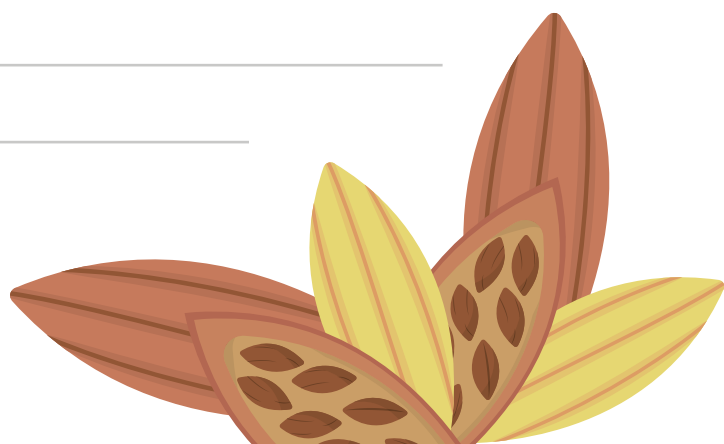


## Somphavanh Keochanla, EYAA Volunteers from Lao PDR.

*"As part of the ASEAN program, it was a fantastic opportunity to gain more experience in project development. I am grateful to be a member to assist Rikolto's team in the agriculture sector, mainly digital marketing on cocoa farming, which is a fascinating initiative that I have never done before. Bahasa Indonesia is a fascinating language with a pleasant accent, and I wish to learn it someday! I want to express my gratitude to the volunteer team for their kind support and collaboration, and I hope to visit West Sulawesi someday! More importantly, thank you so much, ASEAN Foundation, Maybank and Rikolto, for this great opportunity!"*



## Your Remarks:







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Tukad Unda VIII/10 B  
Denpasar, 80225  
Bali - Indonesia

Phone: +62 361 445 8345  
E-mail: [admin.id@rikolto.org](mailto:admin.id@rikolto.org)

The logo for Rikolto, featuring the word "rikolto" in a bold, lowercase, sans-serif font. The letter "k" is stylized with a white human figure inside its negative space. The logo is centered within a white circular area that is part of a larger green circle.

**rikolto**

**Website: [indonesia.rikolto.org](http://indonesia.rikolto.org)  
Instagram: [@rikolto\\_id](https://www.instagram.com/rikolto_id)  
Facebook: Rikolto in Indonesia**