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EMPOWERING COMMUNITIES, BUILDING SUSTAINABLE FUTURES

Best Practices from Community-Based Development and Food Security Initiatives

Darshini Rawichandran & Nur Farah Ezzaty Abd Aziz

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The All-Party Parliamentary Group Malaysia on Sustainable Development Goals (APPGM-SDG)

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CONTRIBUTORS TEAM:

Contributors: Nur Farah Ezzaty Abd Aziz
Darshini Rawichandran
Nur Fatehah Abd Kadir
Muhammad Noraiman Hakim Ahmad Zaki
Corrin Alicia Nero
Rose Helen Ambrose
Melinda Eklund
Nor Amirul Bin Pukin

Cover Designer: Jeremiah Nathan Raj

Layout Designer: Jeremiah Nathan Raj

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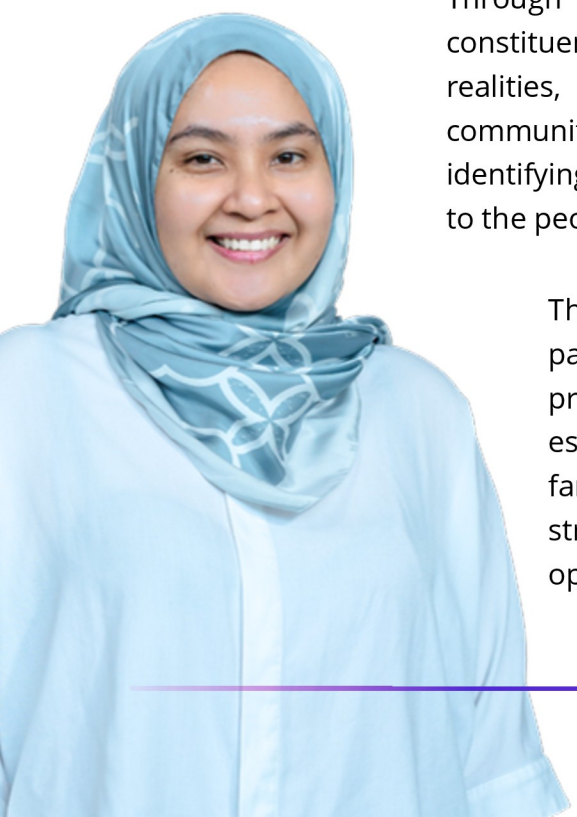
FOREWORD

Nur Rahmah Othman
Executive Director APPGM-SDG

FROM LOCAL NEEDS TO LASTING SOLUTIONS

Development is often discussed in terms of policies, programmes, allocations and targets. But for communities, development is experienced much more simply: whether a child has a place to learn, whether a family can earn a decent income, whether food can be produced sustainably, whether a person with disability has an opportunity to contribute, or whether a community feels capable of shaping its own future.

This is where the work of APPGM-SDG begins. Our approach to localising the Sustainable Development Goals is grounded in a simple principle: we must first understand the problem before we decide on the solution.



Through our issue-mapping and engagement at constituency level, we seek to understand the realities, aspirations and gaps that exist within communities. These findings provide the basis for identifying practical interventions that are relevant to the people and places concerned.

The Micro SDG Projects are an important part of this process. A micro-project may provide a community with equipment, establish a learning space, introduce a new farming system, develop a livelihood, strengthen a local enterprise or create opportunities for young people.

But its value should not be measured only by what is delivered within the project period. Its greater value lies in what happens afterwards, whether people gain new capabilities, whether communities become more organised, whether a livelihood becomes viable, whether a solution can be improved and whether a promising idea can grow beyond its initial intervention.

In this sense, the micro-project is not the destination. It is a starting point. APPGM-SDG believe that sustainable development cannot be built by one institution alone, nor should communities become permanently dependent on external interventions. Instead, our role is to help connect needs with capacity.

Our Solution Providers bring diverse forms of knowledge, experience and relationships to the communities they serve. They include civil society organisations, youth groups, social enterprises, companies, universities, cooperatives, community organisations and other institutions. Their strength lies not only in what they can deliver, but in their ability to work with communities, understand local circumstances and adapt solutions to what is possible on the ground. The diversity of organisations represented in this publication reflects the importance of such cross-sector collaboration.

For APPGM-SDG, this creates a distinctive pathway. From understanding needs, to testing solutions, to learning from implementation, and ultimately to strengthening what works.

Some ideas will succeed immediately. Others will need to be adjusted. Some will grow into a second or third phase, while others may point us towards a different solution altogether. This is not a weakness of community development. It is part of the learning process. Indeed, the stories in this book remind us that development rarely follows a straight line.

The 60 stories featured here come from six different zones and regions of Malaysia, covering social, economic and environmental priorities. They involve women, youth, farmers, persons with disabilities, Indigenous communities, students, low-income families and many others. Their circumstances are different, but the underlying message is remarkably consistent, that is when people are given the right opportunity, the right support and the right partners, they can create solutions that are meaningful to their own lives.

The knowledge generated through these projects should not remain within the communities where they began. What happens on the ground can inform how we think about development more broadly. A successful community intervention can be refined and replicated. An implementation challenge can reveal a gap in existing systems. A local innovation can provide evidence for a wider programme. And the experiences of communities can contribute to better public policy.

This is the larger purpose of localisation. The SDGs provide us with a global framework, but their meaning is ultimately determined by what happens in places that may never appear in international reports. In villages, flats, schools, farms, community centres and neighbourhoods across Malaysia.

The task before us is therefore not simply to implement more projects. It is to build stronger communities, stronger local partnerships and stronger pathways for solutions to move from the ground into wider systems.

I hope this publication will be read not merely as a collection of successful projects, but as a record of what becomes possible when development starts with listening, responds with humility, and works through partnership.

My appreciation goes to Prof. Datuk Dr. Denison Jayasooria, Head of Secretariat, APPGM-SDG for the continuous guidance, the Project Management Department led by Ms. Farah Ezzaty, our Project Management Officers, Solution Providers and, most importantly, the communities and beneficiaries who opened their doors, shared their realities and took ownership of these initiatives. Behind every story in this book are people who gave their time, took risks, learned from setbacks and chose to keep going.

May these stories encourage us to keep looking beyond the size of an intervention and towards the strength of the change it can create. Because lasting development does not always begin with a big solution.

Sometimes, it begins with one local problem, one community, one willing partner and the belief that change is possible.

INTRODUCTION

Nur Farah Ezzaty Abd Aziz | Director
Project Management Department
APPGM-SDG

"Development is not measured only in ringgit disbursed. It lives in the quiet decision of a community, together, to build on what they already have, or to try something entirely new."

In 2025, APPGM-SDGs funded and supported 250 micro-SDG projects of which 169 projects were Community-Based Development Projects (CBDP) and the remaining 81 were ffood ssecurity (FS) iinitiatives. These were distributed across six zones and regions, Central, East Coast, North, South, Sabah and Sarawak. These projects benefited women, youth, farmers, persons with disabilities and disadvantaged communities too often spoken about, but rarely spoken to.



This book holds sixty of those stories, thirty CBDP and thirty from FS, drawn evenly across every zone and region. We did not choose them for being the easiest to write, or the most impressive on paper. We chose them because each one still means something after the funding ended, a skill still used, a farm still growing, a community standing a little taller, whether by scaling up what they already knew or building something entirely new.

The thirty CBDP stories can be documented under the three SDG thematic areas namely, economy, social and environment. Likewise, the FS cover the farming and animal breeding.

Choosing a story was only the smaller half of the work. Every project here, like every project we fund, follows the same journey: a site visit and needs assessment before a ringgit is released, a mid-project visit to check the plan against reality, and a closing visit to see what has truly taken root. When a project faltered, our Project Management Officers did not simply note it and move on. They returned, connected a Solution Provider to the Resource Person, rebuilt a timeline together, or helped a group keep proper records for the first time. This is not a grant given and forgotten. It is hand held for as long as it is needed.

None of these sixty stories would be written without the people who sat with these communities long enough to write them honestly. My heartfelt thanks go to our Project Management Officers, Nur Fatehah Abd Kadir (Central), Muhammad Noraiman Hakim bin Ahmad Zaki (East Coast), Nor Amirul Bin Pukin (Sabah), Corrin Alicia Nero (Sarawak), Melinda Eklund (South), and Rose Helen Ambrose (North). This work would not have been possible without the guidance of Prof Datuk Dr Denison Jayasooria, our Head of Secretariat. My sincere thanks also go to Puan Nur Rahmah Othman, our Executive Director, Mr James Ryan Raj, our Deputy Executive Director, and Darshini Rawichandran, our Assistant Director, for their unwavering support throughout the year.

CONTRIBUTORS



Nur Farah Ezzaty Abd Aziz

Director
Project Management Department, APPGM-SDG

Nur Farah Ezzaty Abd Aziz is the Project Management Director at the APPGM-SDG Secretariat, providing strategic oversight of Community Based Development and Food Security initiatives across Malaysia. With experience spanning more than 1,000 community-based projects, she contributes to the planning, implementation, monitoring, and evaluation of initiatives across diverse parliamentary constituencies and communities. She holds a Master of Science in Biology from Universiti Kebangsaan Malaysia (UKM), with a research background in entomology and integrated pest management. Her professional work bridges scientific knowledge, project management, community development, and the Sustainable Development Goals (SDGs), translating evidence into practical, locally driven interventions that advance inclusive & sustainable development.

CONTRIBUTORS



Darshini Rawichandran

Assistant Director
Project Management Department, APPGM-SDG

Darshini Rawichandran currently serves as Assistant Director in the Project Management Department at APPGM-SDG. She holds a Master's degree in Agricultural Technology from Universiti Putra Malaysia (UPM), specializing in soil microbiology and soil fertility, and a Bachelor's degree in Plant Resource Science and Management from Universiti Malaysia Sarawak (UNIMAS). She is currently pursuing a PhD focusing on soil science, plant genetics, composting technologies, and sustainable waste management. Previously, she served as a Research Officer at the Forest Research Institute Malaysia (FRIM), where she contributed to soil management projects under the 12th Malaysia Plan. An active member of the Malaysian Society of Soil Science (MSSS), she has published her research in local and international journals. Her work focuses on sustainable agriculture, environmental management, and strengthening communities through practical, eco-friendly solutions.

CONTRIBUTORS



Nur Fatehah Abd Kadir

Administration & Central Zone Officer
Project Management Department, APPGM-SDG

Nur Fatehah Abd Kadir is the Administration Officer & Central Zone Project Management Officer at APPGM-SDG, responsible for overseeing local community projects initiatives in the Central region and managing the MOUs agreement and project payments from all regions. She holds a Diploma in Urban and Regional Planning from Sultan Abdul Halim Mu'adzam Shah Polytechnic (POLIMAS) and a Bachelor's Degree in Urban and Regional Planning from the University of Malaya (UM). Previously, she worked as a Town Planner in the private sector, where she managed various development projects, including high-rise residential, commercial, and industrial developments, as well as flood mitigation projects involving Social Impact Assessments (SIA).

CONTRIBUTORS



Muhammad Noraiman Hakim Bin Ahmad Zaki

East Coast Zone Officer
Project Management Department, APPGM-SDG

Muhammad Noraiman Hakim bin Ahmad Zaki is a strategic project management professional and the current East Coast Project Management Officer at APPGM-SDG. He excels in bridging the gap between policymakers, upper-level management, and grassroots communities to drive meaningful social impact. He translates on-the-ground insights from vulnerable demographics into actionable public policy reviews. Noraiman holds a Bachelor of Agricultural and Biosystems Engineering from Universiti Putra Malaysia and brings extensive expertise in stakeholder engagement, grant management, and community impact assessment.

CONTRIBUTORS



Corrin Alicia Nero

Sarawak Regional Officer
Project Management Department, APPGM-SDG

Corrin Alicia Nero is a Project Management Officer for the Sarawak Region at APPGM-SDG, where she oversees the implementation and management of community-based projects across Sarawak. She holds a Master of Science in Cognitive Science from Universiti Malaysia Sarawak (UNIMAS), where her postgraduate research focused on cognitive psychology, particularly strategies for enhancing memory and learning. Her academic interests include memory, attention, and learning processes. She is also expanding her focus to community-based initiatives, seeking to bridge cognitive science with real-world applications that support and empower local communities.

CONTRIBUTORS



Rose Helen Ambrose

Northern Zone Officer
Project Management Department, APPGM-SDG

Rose Helen Ambrose serves as the Northern Zone Project Management Officer at APPGM-SDG. She holds a Bachelor Degree in Business Administration with Honours, majoring in Entrepreneurship, from Universiti Utara Malaysia (UUM) in Sintok, Kedah. Before starting her own business, Rose gained extensive experience as an Operations Manager and managed various departments in a company for five years. She currently serves as the Project Manager of APPGM-SDG's first model farm, the Ipoh Model Farm (IMF), having been involved in its planning, development and management from its inception prior to its establishment in 2023. She also oversees community and SDG-related projects across the northern zone, including project planning, implementation, monitoring and evaluation, stakeholder engagement, reporting, financial and administrative coordination, capacity building, and providing operational guidance to Solution Partners to support effective and sustainable community development. In addition, she manages the administration of the MySDG Ruang Komuniti Zon Utara, supporting its day-to-day operations and coordination.

CONTRIBUTORS



Melinda Eklund

South Zone Officer
Project Management Department, APPGM-SDG

Melinda Eklund is a Project Management Officer for the South Zone at APPGM-SDG, overseeing the management, monitoring and implementation of community-based projects. She works closely with Solution Providers and grassroots communities to facilitate effective project delivery and meaningful social impact. Her professional experience includes programme coordination, stakeholder engagement, community development and environmental education, with a background in sustainable forest and coastal management, mangrove conservation, rehabilitation and community-based awareness programmes. She holds a Bachelor of Science (Biological Sciences) with Honours, First Class, from Universiti Malaysia Terengganu and a Diploma in Pharmacy from KPJ International College of Nursing and Health Sciences.

CONTRIBUTORS



Nor Amirul Bin Pukin

Sabah Regional Officer
Project Management Department, APPGM-SDG

Nor Amirul Bin Pukin is a Project Management Officer for the Sabah Region at APPGM-SDG, focusing on the coordination, implementation, and monitoring of community-based development initiatives. He works closely with Solution Providers, government agencies, community stakeholders, and partners to support impactful projects aligned with the Sustainable Development Goals (SDGs). He holds a Bachelor of Environmental Management from Universiti Putra Malaysia (UPM), graduating with Second Class Upper Honours, and brings experience in environmental management, biodiversity conservation, Geographic Information Systems (GIS), and community development. His professional interests include sustainability, social innovation, and empowering communities through practical and locally driven solutions.

OVERVIEW OF THE BOOK

SIGNIFICANCE

This publication provides an opportunity to document and share the journeys of communities, beneficiaries, and solution providers involved in the Community-Based Development Projects (CBDP) and Food Security (FS) initiatives supported by APPGM-SDG. The stories describe the challenges communities encountered, the actions taken to address them, and the progress achieved through locally implemented projects. Although the scale and outcomes of the projects differ, every story contains valuable experiences and lessons for community development.

The publication reminds us that communities across Malaysia continue to experience challenges related to poverty, limited livelihood opportunities, food insecurity, educational inequality, social exclusion and environmental pressures. At the same time, the stories demonstrate that positive change is possible when communities receive appropriate opportunities, practical knowledge, resources and continued support. They show that even relatively small community-level interventions can strengthen skills, confidence, cooperation and resilience.

The significance of these stories lies in their practical and reflective character. Each story describes a real project, its beneficiaries, implementation process, achievements and challenges. The stories also reflect upon what worked, what required improvement, and what could be continued or replicated. Most importantly, they present the lived experiences of women, youth, farmers, students, persons with disabilities, Indigenous communities, low-income households and other community members who participated directly in the initiatives.

Together, the sixty stories provide policymakers, practitioners, solution providers and community leaders with evidence of how local initiatives can contribute to inclusive and sustainable development. They demonstrate that community development is not measured only by the amount of funding distributed, but also by the knowledge gained, confidence developed, relationships strengthened and opportunities created. This publication therefore serves as both a record of community experiences and a practical resource for designing stronger future interventions.

STRUCTURE OF THE BOOK

To support readers' understanding, this book is divided into two main parts.

Part One: Overview of Community-Based Development and Food Security Projects provides the background to the publication and presents an overall analysis of the sixty selected projects. It describes the distribution of the stories by project type, geographical area, thematic category, solution-provider organisation, beneficiary group and funding allocation. It also discusses the implementation approaches, lessons learned and common challenges identified across the projects.

The sixty stories represent projects implemented across six zones and regions: Central, East Coast, Northern, Southern, Sabah and Sarawak. Each zone or region contributes ten stories, consisting of five Community-Based Development Projects and five Food Security initiatives. This balanced distribution allows the publication to reflect the different needs, environments, experiences and achievements of communities throughout Malaysia.

Part Two: Case Studies by Thematic Area presents the sixty stories under three main themes: social, economic and environmental. The social stories focus on education, youth development, community well-being, social inclusion and support for vulnerable groups. The economic stories highlight income generation, entrepreneurship, agriculture, agribusiness, skills development, and livelihood opportunities. The environmental stories address sustainable agriculture, food production, waste management, renewable energy, resource efficiency and environmental conservation.

Each story presents the community context, identified needs, project activities, implementation challenges, responses taken, outcomes achieved, and connections with the Sustainable Development Goals. The final sections bring together the main lessons and policy implications emerging from the sixty stories. This structure enables readers to understand both the overall APPGM-SDG project portfolio and the experiences of individual communities.

KEY FEATURES OF THE BOOK

Across the sixty stories and experiences, six key features stand out. First, the projects are community-based and needs-driven. They were developed in response to needs identified through engagement, issue mapping and site assessments. Rather than applying the same intervention to every community, the projects were adapted to local circumstances, available resources and the abilities of the beneficiaries.

Second, the projects emphasise active community participation. Beneficiaries were not treated only as recipients of funding, training or equipment. They participated in learning, production, planning, decision-making and project management. This participation strengthened their confidence, ownership and responsibility for continuing the activities.

Third, the initiatives combine practical training with continuous guidance. Participants received hands-on instruction, technical demonstrations, mentoring, financial-literacy training and problem-solving support. Continued engagement by solution providers and project officers helped communities address technical, organisational, and financial challenges during implementation.

Fourth, the projects promote inclusion and equal opportunity. The stories feature women, youth, students, farmers, persons with disabilities, Indigenous communities, older persons, low-income families and other groups with limited access to opportunities. The projects demonstrate how activities can be adapted to different needs and abilities while protecting the dignity and potential of every participant.

Fifth, the stories connect livelihood development with social and environmental sustainability. Income-generation activities are complemented by education, social participation, sustainable farming, food production, waste reduction, renewable energy, and responsible resource management. This integrated approach reflects the understanding that economic, social and environmental development are closely connected.

Sixth, the projects are guided by the Sustainable Development Goals and the principle of leaving no one behind. Collectively, they contribute to priorities such as ending poverty, strengthening food security, improving education, advancing gender equality, promoting decent work, reducing inequalities and encouraging responsible production. The stories demonstrate how the SDGs can be translated from global commitments into practical action at the community level.

PART 1:

OVERVIEW OF COMMUNITY-BASED DEVELOPMENT AND FOOD SECURITY PROJECTS

OVERVIEW OF MICRO SDG PROJECTS

This book contains 60 best-practice stories from Micro SDG projects implemented by solution partners of APPGM-SDG in 2025. It features 30 stories from the Community-Based Development Projects (CBDP) and 30 stories from the Food Security (FS) initiatives across different project types. (Table 1).

Each story shares the experiences of the communities, beneficiaries, and solution providers involved in these projects. Together, they highlight work carried out in areas such as income generation, education, skills development, agriculture, food production, social inclusion, community well-being, and environmental conservation.

The stories also reflect the effort, learning, and cooperation behind each project. They show how locally driven initiatives can respond to community needs, improve livelihoods, and build stronger and more resilient communities.

Table 1: Distribution of the Stories by Project Type

No.	Project Type	Community-Based Development	Food Security	Total Stories
1	Phase 1	16	15	31
2	Phase 2	2	12	14
3	Phase 3	1	0	1

No.	Project Type	Community-Based Development	Food Security	Total Stories
4	Income Generation	8	0	8
5	Community Learning Centres	3	0	3
6	Agribusiness	0	3	3
	Total Stories	***30***	***30***	***60***

Phase 1 projects make up the largest number, with 31 stories. These are new projects introduced to address needs identified through APPGM-SDG's issue-mapping process. Another 14 stories are from Phase 2 projects, where successful initiatives received continued support to expand their activities and strengthen their results. One Phase 3 story is also included, showing the longer-term journey of a project that progressed through the earlier phases.

This book also features eight Income Generation Projects, three Community Learning Centers, and three Agribusiness Projects. Together, these different project types provide a broad picture of how APPGM-SDG works with local communities and solution providers to address local needs.

PROJECT BREAKDOWN BY ZONES AND REGIONS

The 60 selected best-practice stories are distributed equally across Malaysia's six zones and regions: Northern, East Coast, Central, Southern, Sabah, and Sarawak. Each zone or region features 10 stories, comprising five Community-Based Development Project stories and five Food Security stories (Table 2).

Table 2: Distribution of Stories by Zone and Region

No.	Zone/Region	Community-Based Development	Food Security	Total Stories
1	Northern	5	5	10
2	East Coast	5	5	10
3	Central	5	5	10
4	Southern	5	5	10
5	Sabah	5	5	10
6	Sarawak	5	5	10
	Total	***30***	***30***	***60***

This balanced selection ensures that the publication reflects the different experiences, needs, and achievements of communities across Malaysia. It also highlights the wide range of approaches used by solution providers to address local challenges and support sustainable community development.

PROJECT BREAKDOWN BY THEMATIC AREA

The 60 selected Community-Based Development and Food Security stories, combined across CBDP and FS, are organised under three main thematic areas: economic, social, and environmental (Table 3).

Table 3: Distribution of Stories by Thematic Area

No.	Thematic Area	Number of Projects	Percentage (%)
1	Economic	28	46.67
2	Social	20	33.33
3	Environmental	12	20
	Total	***60***	***100***

Economic projects form the largest thematic area, accounting for 28 projects (46.67%). These projects focus on income generation, entrepreneurship, agriculture, agribusiness, skills development, and improving community livelihoods.

Social projects account for 20 projects (33.33%) and focus on education, community well-being, youth development, women's empowerment, social inclusion, and support for vulnerable groups.

Environmental projects represent 12 projects (20.00%). These projects promote sustainable agriculture, waste management, environmental conservation, renewable energy, and the responsible use of natural resources.

Overall, the distribution shows a strong focus on improving livelihoods and economic opportunities, while also addressing social needs and environmental sustainability.

PROJECT BREAKDOWN BY ORGANIZATION

The 60 selected stories were implemented by solution providers from different organizational backgrounds (Table 4). Social enterprises and

companies form the largest group, accounting for 24 projects (40.00%). This is followed by societies and NGOs, which implemented 22 projects (36.67%).

Universities and other institutions were involved in seven projects (11.67%). This category includes universities, educational bodies, school management organizations, and religious institutions. Youth organizations, government agencies or local authorities, and cooperatives each implemented two projects (3.33%). One project (1.67%) was implemented by a JPKK or resident association.

The distribution shows that social enterprises, companies, societies, and NGOs play a major role in implementing the selected projects. The involvement of community associations, government bodies, cooperatives, universities, schools, and other institutions also reflects the importance of collaboration between different sectors in supporting community development and food security initiatives.

Table 4: Distribution of Stories by Organization

No.	Type of Organization	Number of Projects	Percentage (%)
1	Social Enterprises and Companies	24	40
2	Societies and NGOs	22	36.67
3	Youth Organizations	2	3.33
4	JPKK and Resident Associations	1	1.67
5	Government Agencies and Local Authorities	2	3.33

No.	Type of Organization	Number of Projects	Percentage (%)
6	Cooperatives	2	3.33
7	Universities and Other Institutions	7	11.67
	Total	***60***	***100***

PROJECT BREAKDOWN BY BENEFICIARY GROUP

The 60 selected Community-Based Development and Food Security stories involve beneficiaries from different social, economic, and geographical backgrounds. These include women, youth, students, entrepreneurs, persons with disabilities, farmers, Indigenous communities, low-income households, and residents of rural and urban communities (Table 5).

Women form the largest beneficiary group, represented in 14 projects (23.33%). These projects support women from different backgrounds, including single mothers, housewives, women farmers, aspiring entrepreneurs, and women from B40 and asnaf communities. The activities provide opportunities for skills development, income generation, entrepreneurship, agriculture, and greater economic independence.

Asnaf and underprivileged communities are represented in 10 projects (16.67%), while eight projects (13.33%) focus primarily on youth. These youth-related projects provide opportunities in education, sports, volunteerism, agriculture, digital learning, livelihood development, and community participation. Seven projects (11.67%) serve villagers and general community groups through locally based social, economic, educational, agricultural, and environmental activities.

Five projects (8.33%) involve persons with disabilities, providing opportunities for skills development, social participation, agriculture, and income generation. Students are represented in four projects (6.67%) involving mathematics, robotics, digital learning, and STEAM education. Another four projects (6.67%) support farmers and FELDA settlers by strengthening agricultural knowledge, food production, and sustainable farming practices.

The selected stories also include entrepreneurs, small traders, PPR and urban residents, older persons, Orang Asal communities in Sabah and Sarawak, and other Indigenous groups.

Overall, the distribution reflects APPGM-SDG's commitment to ensuring that development initiatives reach different segments of society, particularly communities that may have limited access to economic opportunities, education, technical support, and other essential resources.

Table 5: Distribution of Stories by Beneficiaries and Projects

No.	Type of Beneficiary	Number of Projects	Percentage (%)
1	Women	14	23.33
2	Youth	8	13.33
3	Entrepreneurs, Small Traders and Business Communities	2	3.33
4	Orang Asal Sabah	2	3.33
5	Orang Asal Sarawak	1	1.67
6	Persons with Disabilities (PWD/OKU)	5	8.33

No.	Type of Beneficiary	Number of Projects	Percentage (%)
7	Students (Primary, Secondary and Tertiary)	4	6.67
8	Farmers and FELDA Settlers	4	6.67
9	Villagers and General Community	7	11.67
10	PPR, Flat and Urban Dwellers	1	1.67
11	Elderly Community	1	1.67
12	Indigenous People	1	1.67
13	Asnaf and Underprivileged Communities	10	16.67
	Total	***60***	***100***

PROJECT BREAKDOWN OF STORIES BY PROJECT ALLOCATION

The 60 selected best-practice projects received a total allocation of RM2,225,000.00. Most projects received funding between RM30,000 and RM40,000 per project, depending on the project type, proposed activities, expected deliverables, and community needs.

Table 6: Distribution of Stories by Project Allocations

No.	Project Type	Number of Projects	Total Allocation (RM)	Allocation (%)
1	Phase 1	31	1,205,000.00	54.16
2	Phase 2	14	540,000.00	24.27
3	Phase 3	1	30,000.00	1.35
4	Income Generation (IG)	8	240,000.00	10.79
5	Community Learning Centre (CLC)	3	90,000.00	4.04
6	Agribusiness	3	120,000.00	5.39
	Total	***60***	***2,225,000.00***	***100***

Phase 1 represents the largest project category, comprising 31 projects (51.67%) with a combined allocation of RM1,205,000.00. These projects account for 54.16% of the total funding and represent newly introduced interventions developed in response to needs identified through the issue-mapping process.

Phase 2 consists of 14 projects (23.33%) with a total allocation of RM540,000.00. These projects continue or expand earlier initiatives that demonstrated positive results. The additional funding allows solution providers to increase project capacity, improve implementation, strengthen technical practices, and continue supporting existing beneficiaries.

Eight Income Generation projects received RM240,000.00. These projects focus on practical skills, entrepreneurship, business development, and livelihood opportunities for vulnerable communities. They also provide continued guidance and handholding to help beneficiaries apply their skills and sustain their income-generating activities.

Three Agribusiness projects received a combined allocation of RM120,000.00. These initiatives support the commercial aspects of agriculture, including food processing, product development, packaging, marketing, and the sale of agricultural products.

The three Community Learning Centre projects received RM90,000.00. These centres provide accessible spaces for education, skills development, digital learning, sports, and other community activities. One Phase 3 project, with an allocation of RM30,000.00, was also included among the selected stories. This project reflects the longer-term progress of an initiative that successfully moved through the earlier project phases.

Overall, the RM2.225 million allocation reflects APPGM-SDG's commitment to responding to community needs, strengthening successful initiatives, improving livelihoods, and supporting sustainable community development and food security across Malaysia.

Climate-related risks affecting food production and community livelihoods. These experiences show that regular monitoring and early intervention are necessary to identify problems before they seriously affect project outcomes. Continued technical and operational support, particularly during the period after initial funding, can help communities maintain their activities and move towards long-term sustainability.

Overall, the six lessons demonstrate that successful community development requires more than the distribution of funding or equipment.

It depends on active beneficiary participation, practical learning, financial and market knowledge, locally appropriate project design, community ownership, strong partnerships and responsive monitoring. When these elements are incorporated throughout implementation, community projects can develop into more inclusive, resilient and sustainable local initiatives.

IMPLEMENTATION EXPERIENCES AND COMMON CHALLENGES

The Community-Based Development Projects and Food Security initiatives created meaningful opportunities for participating communities. Behind every project were beneficiaries willing to learn, solution providers who provided guidance and community members who contributed their time, knowledge and effort. Although the projects differed in location, target group and activity, they shared a common purpose: to respond to locally identified needs and create lasting benefits for the people involved.

Through training, access to equipment, technical guidance and continuous support, beneficiaries developed knowledge and practical skills in agriculture, food production, food processing, entrepreneurship, digital learning, sports, beauty services, traditional crafts, environmental management and community leadership. These opportunities strengthened participants' confidence, improved their livelihood prospects and encouraged them to become more actively involved in their communities.

The Food Security initiatives were supported by the Modul Pertanian Lestari, which provided practical guidance on sustainable agricultural practices. The module strengthened beneficiaries' understanding of crop production, soil and water management, farm planning, environmentally responsible farming and the sustainable use of agricultural resources.

Communities were also introduced to improved production systems and opportunities to generate income through agriculture and food-related activities.

The Community-Based Development Projects supported education, skills development, women's participation, youth development, social inclusion and the well-being of vulnerable groups. Women, young people, students, persons with disabilities, Indigenous communities and low-income households participated in activities adapted to their interests, needs and abilities. In many cases, the projects helped participants recognise their potential and develop the confidence to apply their skills in their daily lives. Financial literacy was another important component, particularly in the Income Generation and Agribusiness projects. Beneficiaries learned about budgeting, record-keeping, costing, pricing, profit calculation and the responsible management of financial resources. This knowledge complemented their technical abilities and helped them understand how to manage income, control expenses, market their products and continue their activities beyond the project period.

Continuous capacity-building was provided to beneficiaries and solution providers throughout implementation. This included technical guidance, project management, financial administration, monitoring, reporting and problem-solving support. Regular communication and handholding enabled project officers and solution providers to identify challenges early and make necessary adjustments. The involvement of community leaders, government agencies, educational institutions, businesses and civil society organisations further strengthened project implementation.

Nevertheless, several common challenges were encountered. These included differences in the technical and organisational capacity of solution providers, implementation delays, limited resources, inconsistent beneficiary participation and weaknesses in financial or project management. Participants' availability, changing local conditions, weather

disruptions and delays in obtaining equipment also affected the progress of some projects. These experiences demonstrated the need for realistic planning, flexible implementation, clearly defined responsibilities and regular communication.

Food Security initiatives faced additional challenges involving crop and livestock management, pests and diseases, equipment maintenance, rising production costs and limited market access. Agricultural activities also required sufficient time to complete their production cycles and demonstrate measurable results. Some Community-Based Development Projects required additional effort to maintain attendance, sustain participants' interest and ensure that beneficiaries continued applying their skills after training.

These experiences emphasise the importance of selecting capable solution providers, understanding community needs, establishing clear expectations and providing continuous technical and operational support. Regular monitoring and early intervention are necessary to ensure that challenges are identified and addressed before they significantly affect project outcomes. The achievements and challenges documented across the sixty case studies provide the basis for the following six lessons.

DRAWING LESSONS FROM THE STORIES

The stories presented in this publication reflect the real experiences of communities, beneficiaries, solution providers and project officers involved in the Community-Based Development Projects and Food Security initiatives. They document achievements, implementation challenges and the gradual changes experienced by communities across Malaysia. Although the projects differ in their locations, beneficiaries and activities, six important lessons can be drawn from their experiences.

Lesson One: From Beneficiaries to Changemakers: Communities Leading Their Own Progress

Vulnerable communities should not be viewed only as recipients of assistance. When people receive suitable training, resources, encouragement and opportunities to participate, they can become producers, entrepreneurs and leaders within their communities. In "Shaping Hope: How Clay Transformed Hands, Hearts and Futures," participants used pottery to develop creativity, confidence and potential livelihood skills. Similarly, "Growing Abilities: Empowering Youth with Disabilities Through Hydroponic Farming" and "Inclusive Harvesting: Growing Skills, Confidence and Resilience with Sarawak's OKU Community" demonstrate that persons with disabilities can contribute meaningfully when activities are adapted to their abilities. Meanwhile, "Beyond Beauty: Empowering Women Through Makeup and Enterprise" and "From Creativity to Commerce: Pressing New Opportunities for Women" show how women can transform newly acquired skills into income-generating products and services. These stories demonstrate that empowerment occurs when beneficiaries are recognised as capable partners and given meaningful roles in development.

Lesson Two: Learning by Doing: Building Skills, Confidence and Independence

Training is most effective when participants have opportunities to observe, practise and apply their knowledge. One-off classroom sessions are rarely sufficient, particularly when beneficiaries are learning unfamiliar agricultural, technical or business skills. In "From Soil to Success: Empowering Farmers Through Sustainable Practices," farmers learned through demonstrations and repeated practice involving composting, soil management and environmentally responsible farming. "Powered by the Sun: Growing Food and Green Knowledge at SK Tanjung Kupang" shows how participants gradually became familiar with hydroponic and solar-energy systems through technical guidance and practical experience.

Likewise, "Growing Sustainable Livelihoods Through Cili Kulai Fertigation Farming" highlights the need for continued guidance in crop nutrition, pest management and farm maintenance. These experiences show that capacity-building should be treated as a continuing process in which participants are given sufficient time to practise, address problems and build confidence.

Lesson Three: Turning Skills into Sustainable Livelihoods

The ability to produce vegetables, food products, crafts or services does not automatically result in a sustainable livelihood. Beneficiaries must also understand budgeting, record-keeping, costing, pricing, profit calculation, packaging, promotion and customer management. In "From Pond to Pekasam: Building a Community Agribusiness in Sungai Lampam," fish production was connected with processing and the development of value-added products. "From Harvest to High Value: The TANIKU Transformation of Kampung Kuyungon" demonstrates how surplus vegetables could be processed into powders and pickles instead of being left to spoil. Similarly, "Whisking Up Opportunities: A Journey into Baking and Business" and "Stirring Up Opportunity: From Traditional Recipes to Community Enterprise" show that cooking and baking skills must be supported by knowledge of costing, packaging and marketing. These stories demonstrate that financial and business knowledge should be incorporated into community projects from the beginning rather than introduced only after production has started.

Lesson Four: Building from Within: Creating Solutions Around Community Strengths

Community development initiatives are more likely to succeed when they respond to local conditions and build upon the knowledge, skills and resources already present within a community. "Recipes of Resilience: Turning Tradition into Opportunity" shows how traditional food knowledge can provide the foundation for a community enterprise.

"Crafting Livelihoods, Preserving Heritage" demonstrates how traditional crafts can support income generation while protecting cultural identity. In "Rooted in Heritage: Building an Ecotourism Future in Ulu Geroh," Indigenous knowledge, natural resources and cultural heritage became important components of community-led ecotourism. Similarly, "Revitalising Rural Tourism: The Community-Led Transformation of Nunuk Ragang" highlights the role of local history, culture and participation in strengthening rural tourism. These experiences show that a project model should not be applied uniformly across all communities. It must be adapted to the location, culture, existing abilities, available resources and development priorities of each community.

Lesson Five: Stronger Together: Community Ownership and Partnerships for Lasting Change

Projects achieved better results when beneficiaries understood their responsibilities and participated in planning, decision-making, implementation and maintenance. The involvement of local leaders, schools, government agencies, universities, businesses and civil society organisations also strengthened access to knowledge, resources and networks. In "GreenEdu Farm: Growing Food, Knowledge and Community," the participation of volunteers, families, children and community members transformed the farm into a shared educational and environmental space. "Harvesting Together: How Hydroponics Strengthened the Pokok Assam Community" demonstrates how working together around a food-production activity can strengthen relationships and collective responsibility. In "From Burning Waste to Building Change: Kg. Gerinsing's Zero Waste Journey," cooperation among village leaders, households, students, teachers and government agencies helped introduce recycling and waste-separation practices. These stories demonstrate that community ownership cannot be created by funding alone. It develops when people are involved in decisions, trusted with responsibilities and supported through strong partnerships.

Lesson Six: Adapting Along the Way: Supporting Communities Through Challenges and Change

Community projects often face unexpected challenges, including weather conditions, pests and diseases, equipment problems, implementation delays, changing participant availability, limited organisational capacity and difficulty accessing markets. Successful implementation therefore requires realistic planning and the flexibility to respond to changing circumstances. In "Turning Waste into Wealth: Building a Circular Farming Community Through Black Soldier Fly Farming," participants had to address prolonged rainfall, equipment installation problems and moisture-management difficulties. "From Soil to Success: Empowering Farmers Through Sustainable Practices" shows how farmers adapted their production and marketing strategies when harvest quantities were inconsistent. Meanwhile, "Tides of Opportunity: Building Climate-Resilient Shellfish Livelihoods in Kuala Kedah" highlights the environmental and climate-related risks affecting food production and community livelihoods. These experiences show that regular monitoring and early intervention are necessary to identify problems before they seriously affect project outcomes. Continued technical and operational support, particularly after the initial funding period, can help communities maintain their activities and move towards long-term sustainability.

Overall, the six lessons demonstrate that successful community development requires more than the distribution of funding or equipment. It depends on active beneficiary participation, practical and continuous learning, financial and market knowledge, locally appropriate project design, community ownership, strong partnerships and responsive monitoring. When these elements are incorporated throughout implementation, community projects can become more inclusive, resilient and sustainable local initiatives.

PART 2:

CASE STUDIES

THEMATIC: SOCIAL

COUNTING ON A BRIGHTER FUTURE: COMMUNITY MATHEMATICS SUPPORT IN SUNGAI BESAR

Organization: Hj Event
Parliament: P.092 Sabak Bernam
Project Title: Pusat Pendidikan Dan Latihan (Pusat Tuisyen Matematik)
Funding Allocation: RM 30,000
Email: hjevent19@gmail.com

For low-income families in Sabak Bernam and Sungai Besar, the cost of supplementary education and transportation can prevent children from receiving the additional academic support they need. This is particularly challenging for families dependent on occupations such as fishing, whose children may require further assistance to strengthen their understanding of Mathematics and prepare for important examinations.

To address this educational gap, the Pusat Pendidikan dan Latihan (Pusat Tuisyen Matematik) project (Y25-SP105) was implemented in Sungai Besar under APPGM-SDG with an allocation of RM30,000. The three-month initiative was led by HJ Event, with Muhammad Norhaiqal bin Mohd Norhisam serving as the Solution Provider. Drawing on its experience in motivational camps, academic workshops and student development programmes, HJ Event created an accessible and supportive learning environment for the local community.

The project provided structured Mathematics tuition to 40 Year 6 students from low-income families in Sabak Bernam and Sungai Besar. It aimed to improve access to affordable supplementary education while creating opportunities for young instructors to gain practical teaching experience.

Learning modules, exercises, classroom equipment and other educational materials were provided to ensure that lessons could be conducted effectively.

Over 12 structured learning sessions, students were guided through the Year 6 Mathematics syllabus. Topics included numbers and operations, fractions, decimals, percentages, money, time, measurement, space, coordinates, ratios and proportions, data management and probability. Lessons combined direct instruction, written exercises, group discussions, quizzes and guided problem-solving activities.

The interactive learning approach enabled tutors to identify students' difficulties and provide targeted assistance. For example, one student who initially struggled with questions involving money improved after receiving further explanations and completing additional exercises. Another student progressed from learning basic operations to confidently answering a question in front of the class, demonstrating improvements in both understanding and participation.

Students also improved their ability to solve more technical problems. Additional exercises helped one participant distinguish between horizontal and vertical distances in coordinate-related questions. During lessons involving compasses and protractors, group quizzes and peer discussions helped students better understand angles. These activities demonstrated the value of collaborative learning in reinforcing mathematical concepts.

After completing the main syllabus, students participated in revision activities using past-year questions to strengthen their examination readiness. A final assessment evaluated their ability to apply the knowledge acquired throughout the programme. Although consolidated examination scores were not available, classroom observations and individual progress records indicated improvements in mathematical understanding, problem-solving confidence and active participation.

The programme encountered several practical challenges. Some classes had to be postponed because students were sitting for the Penilaian Sekolah Rendah Agama examination. The project team consulted parents and teachers and rescheduled the affected sessions, allowing students to continue learning without disrupting their examination commitments.

Transportation was another significant barrier, particularly when parents were working late or unable to bring their children to the tuition centre. To ensure consistent participation, the project team arranged transportation for affected students. This support recognised that educational access depends not only on affordable lessons but also on students' ability to travel safely and reliably.

Sustainability was incorporated into the project through the purchase of tables, chairs, whiteboards and teaching materials, reducing future dependence on fully equipped rental venues. HJ Event plans to continue providing affordable tuition, extend learning support to secondary-school students and organise educational camps and Quranic classes. Establishing a committee involving parents and community representatives could further strengthen participation, shared responsibility and long-term continuity.

The project contributes directly to SDG 4: Quality Education by expanding access to supplementary learning for children from low-income households. It also supports SDG 1: No Poverty by strengthening educational opportunities that may improve students' long-term prospects. Its contribution to SDG 8: Decent Work and Economic Growth is reflected in the practical teaching and facilitation opportunities provided to young instructors.

Through structured lessons, responsive teaching, peer learning, transportation assistance and community support, this initiative created a more inclusive learning environment for Year 6 students in Sungai Besar.

More than helping students complete the mathematics syllabus, the project strengthened their understanding, confidence and readiness to face future academic challenges.











SHAPING HOPE: HOW CLAY TRANSFORMED HANDS, HEARTS AND FUTURES

Organization: Coco Zen Sdn Bhd
Parliament: P.105 Petaling Jaya
Project Title: CLAYPRENEUR: HEALING HANDS, THRIVING BUSINESSES
Funding Allocation: RM 30,000
Email: cocozensdnbhd@gmail.com

A simple piece of clay can appear ordinary. Yet, when placed in someone's hands, it can become a bowl, a work of art, a source of income, or even a quiet space for emotional healing.

For 10 women in Petaling Jaya, learning to work with clay became a journey of creativity, patience and personal growth. Some participants had backgrounds or interests in psychology, counselling, social work and mental health. They were drawn to pottery not only as a practical skill but also as a way of exploring mindfulness, emotional expression and community connection.

The Claypreneur: Healing Hands, Thriving Businesses project was created to bring these different possibilities together. Implemented from October to December 2025 at Jalan Anak Gasing, Petaling Jaya, and Plaza Damas, the three-month initiative received an APPGM-SDG allocation of RM30,000.

The programme was led by Coco Zen Sdn. Bhd., with Ronald Wong Zen Loong serving as the Solution Provider. Established in 2018, Coco Zen had experience providing pottery and art education through handbuilding, wheel throwing, colouring and other ceramic techniques. Its previous involvement in developing Claypreneurs enabled the Organization to

combine technical instruction with a gentle and supportive learning environment.

Ten women between the ages of 20 and 50 joined the programme. Each participant arrived with a different level of experience, but they shared a willingness to learn and explore the possibilities of working with clay. Their journey began with clay preparation and basic handbuilding techniques. Participants learned pinching, slab construction and coiling before progressing to more advanced methods such as wheel throwing, glazing, surface decoration and firing. They also experimented with acrylic and underglaze painting, exploring how colour and decorative details could give each ceramic piece its own identity.

As their hands learned to shape the clay, the participants also began discovering their own creative voices.

Wheel throwing became one of the most challenging parts of the programme. At first, many participants struggled to centre the clay and pull it upwards evenly. Uneven pressure produced walls of different thicknesses. Some vessels became unstable, while others collapsed before they could be completed. These moments could easily have felt like failures. Instead, the facilitators transformed them into opportunities for learning. They demonstrated each movement step by step, focusing on hand positioning, pressure and timing. Participants were encouraged to try again, observe what had gone wrong and make gradual adjustments.

With every attempt, their control improved. The clay became more stable, their movements became more confident and their vessels began to take shape.

The participants learned that a collapsed piece was not the end of the process. The clay could be gathered, reshaped and given another beginning.

This lesson became central to the project's well-being dimension. Participants were encouraged to recognise mistakes as a natural part of learning rather than evidence of personal failure. The calm environment, gentle guidance and positive reinforcement helped them manage frustration and develop patience. During the final month, participants focused on refining their wheel-throwing techniques. They practised centring, pulling, shaping and finishing their ceramic pieces. Through acrylic and underglaze painting, they experimented with colour layering and decorative details.

The finished works reflected more than technical improvement. Each piece carried evidence of persistence, creative decision-making and greater self-confidence. Participants became increasingly capable of working independently and expressing their ideas through the forms, colours and textures they created. All 10 women completed the programme, with full attendance recorded during the final presentation. Their continued participation reflected a strong interest in both the creative and therapeutic experience of working with clay.

Participants described the workshops as calming and focused. They associated the creative process with reduced stress, improved emotional regulation, mindfulness and greater confidence. These benefits were based on participant feedback and facilitator observations rather than a formal clinical mental-health assessment. The group setting also created a strong sense of belonging. Participants encouraged one another, exchanged ideas and celebrated each other's progress. Someone who had mastered a technique could support another participant who was still struggling.

In the pottery studio, learning became a shared journey. Every completed piece represented not only individual progress but also the encouragement received from the group.

The relationships formed during the programme continued after the formal sessions ended. Participants remained connected through

continued classes, a WhatsApp group and informal practice sessions. Some also established connections with creative mentors, cultural Organizations and mental health bodies, including the Malaysia Mental Health Association and the National Coalition for Mental Wellbeing Malaysia. As their understanding grew, participants began exploring how pottery could support mental health awareness and community well-being. Clay was no longer seen only as a material for producing decorative objects. It became a medium for mindfulness, emotional expression, stress relief and supportive social interaction.

The programme also introduced participants to the potential economic value of their ceramic skills. With further training, participants could develop pottery products, facilitate workshops or explore small creative enterprises. However, no participant sales or income figures were recorded by the end of the project. At this stage, its strongest outcomes were improved skills, confidence, well-being and readiness to explore future opportunities.

The success of the programme inspired Coco Zen and the participants to consider a larger vision: a dedicated community centre for clay-based activities. The proposed centre would provide a permanent, safe and inclusive space for creative learning, mental health advocacy and community participation. Participants would not merely attend activities at the centre. They would be encouraged to contribute to its development, strengthening their sense of ownership and creating opportunities for leadership and collaboration.

Future plans include expanding mental health-informed creative programmes, providing mental health first-aid training for facilitators and establishing more formal programme structures. Additional partnerships and funding would be required to secure premises, kilns, tools, clay, paints, glazes and other operational resources. In the longer term, the initiative hopes to extend its programmes to single mothers, persons with disabilities, older persons and other underserved groups. This would allow

more members of the community to experience the creative, social and potential economic benefits of pottery.

The project contributes most directly to SDG 3: Good Health and Well-Being by supporting mindfulness, emotional expression and stress reduction. It advances SDG 5: Gender Equality by strengthening women's skills and confidence. It also supports SDG 8: Decent Work and Economic Growth through potential creative-enterprise pathways and SDG 10: Reduced Inequalities through its inclusive community-based approach.

The Claypreneur story demonstrates that pottery can shape much more than clay. It can shape patience, confidence, relationships and new possibilities. For the 10 women who completed the programme, every imperfect attempt became part of their progress. As they learned to centre the clay, steady their hands and begin again after a piece collapsed, they also discovered their own capacity to adapt and grow.

Their ceramic works may eventually be displayed, gifted or sold. Yet their most meaningful creation may be the supportive community they formed, one built through healing hands, shared experiences and the courage to keep shaping a brighter future.











GROWING ABILITIES: EMPOWERING YOUTH WITH DISABILITIES THROUGH HYDROPONIC FARMING

Organization: Universiti Malaya
Parliament: P.101 Hulu Langat
Project Title: Pemerkasaan Kemahiran Belia OKU Melalui Projek Kebun Dapur Hidroponik Komuniti PPDK Semenyih
Funding Allocation: RM40,000
Location: PPDK Semenyih, Hulu Langat, Selangor
Email: suzana_ariff@um.edu.my

At PPDK Semenyih, rows of kangkung, pak choy, salad and sawi represent far more than vegetables growing in water. Every seedling transplanted, nutrient solution prepared and vegetable harvested reflects the growing confidence and independence of a young person with disabilities. For many young people with learning disabilities and Down Syndrome, access to vocational training and meaningful economic participation remains limited. Without suitable opportunities, they may have fewer chances to develop practical abilities, contribute to their communities and demonstrate their potential. At the same time, increasing living costs and concerns about food security have created a need for community initiatives that combine sustainable food production with social inclusion.

Recognising these challenges, Universiti Malaya introduced the Pemerkasaan Kemahiran Belia OKU Melalui Projek Kebun Dapur Hidroponik Komuniti PPDK Semenyih under the APPGM-SDG Food Security Programme 2025. Led by Senior Lecturer and Solution Partner Suzana Ariff Azizan, the project was implemented at PPDK Semenyih in Hulu Langat, Selangor. It aimed to empower youth with disabilities through sustainable hydroponic farming while strengthening vocational skills, food security and

community entrepreneurship. The programme involved 10 participants between the ages of 20 and 34, comprising individuals with learning disabilities disabilities and Down Syndrome. Equal participation by young men and women reflected the project's commitment to inclusive community development.

The participants began their learning journey through four progressive modules: basic understanding, hydroponic systems and cultivation, innovation and harvest management, and entrepreneurship and marketing. Each module was carefully designed to match their different abilities and learning speeds. Participants were introduced to every stage of hydroponic farming, beginning with cleaning and preparing the site before progressing to seed sowing, transplanting seedlings, mixing nutrient solutions, monitoring pH and electrical conductivity, controlling pests and diseases, harvesting vegetables and marketing the produce. By cultivating kangkung, pak choy, salad and sawi, they gained direct experience with an environmentally friendly farming system that requires relatively little land and can be adapted to community spaces.

The learning process was intentionally patient and highly practical. Trainers understood that the participants had different levels of cognitive ability and could not be expected to learn through conventional classroom instruction alone. Activities were therefore demonstrated step by step using visual materials, simplified explanations and repeated hands-on practice. Tasks were broken into manageable stages so that participants could understand and complete them with increasing independence. When someone found a task difficult, the facilitators repeated the demonstration and provided individual guidance without creating pressure. The project did not measure progress by how quickly participants completed an activity, but by how confidently they learned to carry it out.

Mistakes became a natural part of the learning process. On some occasions, participants harvested vegetables before they were fully mature or used too much fertiliser, affecting plant growth and quality. Rather than

treating these incidents as failures, trainers used them as practical teaching moments. Participants were shown how to identify vegetables that were ready for harvesting, measure nutrient solutions correctly and observe signs of plant stress. Continuous supervision and repetition helped them understand the consequences of each action and gradually improve their farming practices. These experiences demonstrated why patient mentoring and adaptive teaching are essential when developing inclusive vocational programmes.

As the vegetables grew, changes were also visible among the participants. Gardening required them to follow routines, care for living plants and work together towards a shared outcome. Through these responsibilities, they developed discipline, communication, cooperation and problem-solving abilities. Teachers and caregivers observed that participants became increasingly enthusiastic whenever farming activities were scheduled. Many showed excitement and pride when the vegetables they had cared for were finally ready to be harvested. For the participants, holding a freshly harvested vegetable was evidence that their effort, patience and responsibility had produced something valuable.

The project also introduced participants to basic entrepreneurship. Some harvested vegetables were used within the PPDK centre, while surplus produce was sold to parents, staff members and nearby communities. Through these activities, participants gained exposure to simple pricing, customer interaction, product promotion and sales. During the project period, they harvested approximately 48.2 kilograms of vegetables and generated more than RM376 in sales revenue. Although the amount was modest, its significance extended beyond income. The sales showed participants that the vegetables they cultivated had real value and that their work could contribute to the centre and the wider community.

The hydroponic garden also became a supportive space for emotional well-being and social interaction. Participants worked alongside trainers, teachers, caregivers, parents, technical experts and volunteers, creating

opportunities to communicate and form stronger relationships. The structured and calming nature of gardening helped some participants remain focused, while teamwork encouraged them to interact more confidently with others. Teachers and caregivers observed improvements in motivation, discipline, communication and willingness to participate in daily responsibilities. Although these observations do not constitute a clinical therapeutic assessment, they demonstrate how gardening can provide a positive environment for learning, engagement and personal growth.

Collaboration was central to the initiative. Universiti Malaya worked closely with PPDK Semenyih, hydroponic specialists from Ranthing Empire and community volunteers to provide continuous technical guidance and participant support. The project also attracted visits from the Department of Social Welfare, which recognised its potential to support inclusive vocational education and community entrepreneurship for persons with disabilities. Through interaction among participants, universities, technical specialists, parents and local residents, the programme helped challenge social stigma and draw attention to the capabilities of youth with disabilities. The garden gradually developed into an inclusive community platform where food production, skills development, entrepreneurship and social empowerment could exist together.

The initiative contributes directly to SDG 2: Zero Hunger by strengthening community-level food production through sustainable hydroponic farming. It advances SDG 4: Quality Education by providing accessible and adaptive practical learning, while supporting SDG 8: Decent Work and Economic Growth through vocational and entrepreneurship exposure. Most importantly, it contributes to SDG 10: Reduced Inequalities by creating opportunities for youth with disabilities to develop their abilities, participate in productive activities and contribute visibly to their community. Its inclusive participation of young men and women also supports the broader principles of SDG 5: Gender Equality.

Today, the PPDK Semenyih Hydroponic Kitchen Garden demonstrates how sustainable agriculture can become a meaningful tool for inclusive community

community development. Its achievement cannot be measured only by the kilograms of vegetables harvested or the revenue generated. Its deeper impact can be seen in participants who became more confident, responsible and engaged after being given an opportunity to learn in a way that respected their individual needs. The garden did not simply grow vegetables; it cultivated abilities, independence and a stronger sense of belonging.

Looking ahead, the Organization plans to strengthen digital marketing, introduce automated hydroponic systems equipped with EC and pH sensors, and develop value-added products using harvested vegetables during Phase 2. These plans could improve production efficiency, expand participants' technical exposure and create new pathways for income generation. With continued guidance and community support, the project can provide a lasting model for food security, economic resilience and inclusive empowerment, demonstrating that when youth with disabilities are given appropriate opportunities, patience and trust, they can grow alongside the gardens they help to nurture.











SWEET SUCCESS: BAKING A FUTURE OF INDEPENDENCE IN MARAN

Organization: Kelab Srikandi Mawaddah Maran
Parliament: P.086 Maran
Project Title: Menangani Kekurangan Sumber Dan Dana Untuk Kelestarian Pusat Pemulihan Dalam Komuniti (PDK) Kg Bak-Bak Maran
Funding Allocation: RM40,000.00
Email: eyni9557@gmail.com

Every morning, the quiet surroundings of Kampung Bak-Bak in Maran, Pahang, are filled with the warm aroma of freshly baked treats. Inside the local Community-Based Rehabilitation Centre, known as Pusat Pemulihan Dalam Komuniti (PDK) Kg. Bak-Bak, a group of young persons with learning and physical disabilities works carefully together. Some measure flour, while others mix dough, prepare baking trays or decorate freshly made tarts. Their focused expressions and joyful smiles reveal more than their excitement about baking. They reflect a growing sense of confidence, responsibility and pride. This lively kitchen has become the centre of an initiative that is transforming lives and redefining how the wider community understands ability.

For many years, PDK Kg. Bak-Bak faced serious operational challenges. Limited funding made it difficult for the centre to provide allowances, maintain its facilities and purchase updated equipment for therapy and skills development. Without a sustainable income-generating programme, the centre remained highly dependent on external assistance, which could change or become unavailable over time. Recognising this vulnerability, Kelab Srikandi Mawaddah Maran partnered with APPGM-SDG to introduce the Projek Menangani Kekurangan Sumber dan Dana untuk Kelestarian

PDK Kg. Bak-Bak Maran. Led by Project Manager and Kelab Srikandi Mawaddah Chairman Nor Aini binti Abu Bakar, the three-month initiative was designed to strengthen the centre's financial resilience while providing participants with practical and meaningful skills.

The project responded to several interconnected community needs: limited access to specialised vocational training for persons with disabilities, unemployment and insufficient public awareness of their capabilities. Rather than positioning the participants only as recipients of welfare assistance, the project introduced a pathway through which they could become active contributors to the PDK and the surrounding community. The approach was practical but meaningful, establish a small bakery-based social enterprise within the centre that could simultaneously support learning, therapy and income generation. A dedicated workshop area was prepared and equipped with essential culinary items, including an oven, refrigerator and stand mixer, enabling the participants to learn in a safer and more organised environment.

Over three months, 20 participants took part in structured baking and developmental activities. They learned how to prepare tarts, muffins, cakes and doughnuts through repeated hands-on practice. The sessions went beyond producing baked goods. Participants also completed basic cognitive exercises, practised personal-hygiene routines and participated in activities designed to strengthen their physical coordination. Gardening and exercises using gym balls complemented the baking programme, creating a more holistic learning experience. Measuring ingredients helped participants practise numbers, following recipes strengthened their ability to understand sequences, and decorating pastries encouraged concentration and hand-eye coordination. *Within the PDK kitchen, every recipe became an opportunity to learn, practise and grow.*

Among the participants, the progress of 20-year-old Muhammad was particularly encouraging. Muhammad, who has a learning disability and limited motor coordination, initially found it difficult to remain focused and

and was afraid of handling kitchen equipment. Facilitators therefore introduced him to the tasks gradually, allowing him to observe before attempting each step with close guidance. The repetitive process of measuring ingredients, rolling dough and decorating pastries became a form of practical developmental support. As the weeks passed, his hand-eye coordination improved, and he became increasingly comfortable participating in the kitchen. Today, Muhammad proudly takes the lead during doughnut-making activities, carefully glazing each pastry with concentration and enthusiasm. His mother also observed that his growing confidence extended into his home life, where he became more independent in managing his daily personal routines.

The programme recorded an 85% attendance rate, with all 20 participants completing the project. By the final month, approximately 70% of the participants had demonstrated measurable cognitive progress, including improvements in letter recognition and basic mathematical abilities used when measuring ingredients. Their completed food products were showcased during a visit by YB Dato' Sabariah binti Saidan, Pahang's Executive Councillor for Social Welfare, Women and Family Development. The visit gave participants an opportunity to present the dadih and pastries they had produced, allowing community leaders and visitors to witness their abilities directly.

"Seeing the participants confidently present the dadih and pastries they made with their own hands was deeply moving. This project has proven that when given the proper tools and patience, their potential is limitless.", Nor Aini binti Abu Bakar, Project Manager and Chairman of Kelab Srikandi Mawaddah

The learning journey was not without difficulties. Participants had different cognitive, physical and communication abilities, which meant that a single teaching method could not meet everyone's needs. Some became easily distracted, while others required additional time to understand instructions or complete a task. Working near hot ovens and using kitchen equipment also required strict safety measures and close supervision.

Facilitators responded by dividing participants into smaller groups, providing one-to-one assistance and breaking every task into clear, manageable steps. Visual instructions and repeated demonstrations helped participants understand the sequence of each baking activity. Rather than expecting everyone to progress at the same pace, trainers adapted the programme to each individual's abilities and encouraged progress through patience and positive reinforcement.

The initiative also prepared PDK staff to manage the bakery as a sustainable social enterprise. Training in financial management helped staff understand production costs, pricing, sales records and the importance of reinvesting part of the income into future bakery activities. This component was essential because the project's long-term value depended not only on participants learning to bake but also on the centre's ability to maintain a financially responsible operation. Plans for a PDK Mini Market Day could provide a regular platform for selling baked products, attracting new customers and creating a continuous stream of income to support the centre's activities.

The project contributes directly to SDG 4: Quality Education by providing accessible and adaptive skills development for persons with disabilities. It supports SDG 8: Decent Work and Economic Growth by creating pathways towards productive participation and social enterprise, while advancing SDG 10: Reduced Inequalities through greater inclusion and recognition of the capabilities of persons with disabilities. Its focus on confidence, physical activity and emotional well-being also contributes to SDG 3: Good Health and Well-Being, while the development of a sustainable income stream supports SDG 1: No Poverty.

Today, the micro-bakery at PDK Kg. Bak-Bak represents far more than a place where pastries are produced. It is a learning environment, a source of confidence and a foundation for greater financial independence. Muhammad's journey from being afraid of kitchen equipment to proudly leading the doughnut-glazing activity reflects the wider transformation

made possible by the programme. *Each tart, muffin and doughnut carries a story of patience, progress and possibility.* By connecting social care with skills development and entrepreneurship, the project has shown that the young persons of PDK Kg. Bak-Bak are not passive recipients of assistance. With appropriate opportunities, tools and support, they can become skilled, confident and valued contributors to their community.











SADDLING UP FOR SUCCESS: HOW HORSEVENTURE BELIA IS EMPOWERING RURAL YOUTH

Organization: Alang Stable Enterprise
Parliament: P.033 Besut
Project Title: Horseventure Belia
Funding Allocation: RM40,000.00
Email: alangstableenterprise@gmail.com

In the quiet coastal village of Kampung Beris Alor Pisang in Kuala Besut, Terengganu, a different kind of youth-development journey is taking place. Inside the grounds of Alang Stable Enterprise, local young people are stepping beyond their familiar routines and entering the world of equestrianism. Some arrive feeling nervous about standing beside such large and powerful animals, while others have never touched a saddle or entered a stable. Under the guidance of Project Manager Muhammad Izzat Syahmi bin Fandi and a team of experienced trainers, these young participants gradually learn that caring for and riding a horse requires more than physical strength. It demands patience, discipline, empathy, courage and trust.

Young people in rural communities often have limited access to specialised programmes that combine practical training with character development. Conventional employment opportunities may also be limited, while alternative pathways such as equestrian care, coaching and rural tourism remain unfamiliar or inaccessible. Recognising this gap, Alang Stable Enterprise introduced Horseventure Belia, a three-month programme supported by an APPGM-SDG allocation of RM40,000. The initiative was designed to provide local youth with an opportunity to develop practical

equestrian skills while strengthening their confidence, communication, teamwork and readiness to explore new livelihood pathways.

The programme brought together 10 young people between the ages of 18 and 25 for a structured 12-week experiential-learning journey. Their training extended far beyond learning how to ride. Participants were introduced to the daily responsibilities involved in caring for horses, including grooming, cleaning hooves and managing the stable's water and feeding systems. They learned how to use and maintain equipment such as saddles and bridles, as well as how to approach horses safely. The participants were also trained to observe a horse's body language by paying attention to its ears, posture and movement. These signs helped them understand whether an animal was calm, anxious, uncomfortable or ready to respond. Before the participants could expect a horse to trust them, they first had to learn how to understand and care for it.

For several participants, the first challenge was overcoming fear. Standing beside a horse could be intimidating, while mounting and maintaining balance required both physical control and mental confidence. The trainers introduced the activities gradually, allowing participants to observe, practise and progress according to their individual comfort levels. With repeated guidance, those who had initially hesitated began mounting the horses more confidently. They progressed from basic riding exercises to navigating obstacle courses and participating in synchronised group formations. As their riding abilities improved, they also developed a stronger sense of responsibility. They realised that their actions, emotional state and consistency directly affected the horses under their care.

The participants' development was not limited to physical riding skills. Stable work required them to arrive on time, complete routine tasks and cooperate with others. Grooming and feeding the horses encouraged patience, while team formations strengthened communication and awareness of other riders. Learning to respond calmly when a horse behaved unexpectedly helped participants develop emotional control and

problem-solving abilities. Project Secretary Siti Zaharah binti Yahaya observed that the activities provided participants with new experiences, strengthened their confidence in handling horses and inspired them through motivational sessions.

"Participants stated that the riding training was very enjoyable and provided a new experience that increased their self-confidence. They were happy to be able to ride individually and in groups, and felt closer to the horses.", Siti Zaharah binti Yahaya, Project Secretary

The implementation journey was shaped by the unpredictable monsoon season. Frequent heavy rain made outdoor riding activities difficult and sometimes unsafe. Instead of cancelling the affected sessions, the project team adapted the schedule. Rainy days were used for theoretical learning, stable care and equipment maintenance, while periods of clearer weather were reserved for riding practice. Participants also progressed at different rates, with some developing confidence more quickly than others. Trainers therefore divided them into smaller groups and provided more focused coaching so that each participant could receive appropriate guidance. This flexible approach ensured that no one was excluded or pressured to advance before they were ready.

The project also introduced the participants to environmental responsibility and the wider economic potential of equestrian activities. Existing local facilities were used instead of constructing unnecessary new infrastructure, reducing the project's material and environmental footprint. Participants learned that horse manure did not have to be treated solely as waste but could be processed and used as organic fertiliser. At the same time, the programme supported local trainers, facilitators and food vendors, allowing part of the project expenditure to circulate within the community. These experiences helped participants see that equestrianism could connect animal care, environmental management, rural enterprise and tourism.

The initiative contributes directly to SDG 4: Quality Education by providing practical and experiential skills development for rural youth. It supports SDG 8: Decent Work and Economic Growth by introducing participants to potential roles in horse care, coaching, stable management and rural tourism. Its use of existing facilities and productive management of horse manure contributes to SDG 12: Responsible Consumption and Production and SDG 15: Life on Land. Most importantly, the programme provides young people with a supportive environment in which they can develop confidence, discipline, teamwork and leadership.

At the end of the programme, the participants presented an equestrian demonstration during an appreciation ceremony. For the audience, it was an opportunity to witness the skills they had developed. For the young riders, it represented the distance they had travelled, from hesitant beginners to participants capable of riding individually, working in formation and caring responsibly for their horses. The demonstration was not merely a display of riding ability; it was a visible expression of confidence earned through weeks of patience, practice and perseverance.

The establishment of Kelab Pecinta Kuda Besut will provide a platform for participants to remain connected and continue developing their interests after the funded programme. Alang Stable Enterprise also plans to prepare promising participants to serve as assistant coaches and expand equestrian activities to tourists and school groups. These plans could create future opportunities in training, stable management and community-based tourism while strengthening Kuala Besut's local economy. Horseventure Belia has shown that when rural youth are exposed to new experiences and trusted with genuine responsibility, they can discover abilities they did not know they possessed. Their journey began with the courage to approach a horse; it now continues as they ride towards greater confidence, leadership and opportunity.











AWAKENING THE SPIRIT OF SERVICE: EMPOWERING YOUTH IN KOTA BHARU

Organization: Koperasi Amal Kelantan Berhad
Parliament: P.021 Kota Bharu
Project Title: Program Membina Sukarelawan Komuniti Madani
Funding Allocation: RM40,000.00
Email: amalresidenkelantan@gmail.com

In the heart of Kota Bharu, Kelantan, community Organizations had begun noticing a worrying change. Fewer young people were participating in voluntary activities, and the spirit of collective service that once brought communities together appeared to be weakening. Some youth believed that volunteering offered little personal value or tangible reward, while others were interested in contributing but did not know where to begin. Without structured opportunities, guidance or suitable platforms, their energy and abilities remained largely untapped. Recognising that this was not simply a lack of interest but also a lack of exposure and support, Koperasi Amal Kelantan Berhad introduced the Program Membina Sukarelawan Komuniti Madani to help young people discover the meaning and value of community service.

Supported by an allocation of RM40,000, the three-month initiative brought together 30 young participants, comprising 20 women and 10 men. The programme was designed to transform volunteerism from an occasional activity into a structured learning journey that could develop empathy, communication, teamwork and leadership. Participants began with foundational workshops on volunteerism, civic responsibility and the Sustainable Development Goals. These sessions helped them understand

that community service was not only about completing isolated charitable activities. It was also about recognising community needs, working respectfully with different groups and contributing to longer-term solutions.

After learning the basic principles of volunteerism, the participants moved from the classroom into the community. They joined gotong-royong activities, participated in recycling initiatives and helped paint a community mural centred on unity. They also spent time serving older persons and persons with disabilities, allowing them to interact directly with community members who may face social, physical or economic challenges. Through these experiences, the participants began to understand that volunteerism requires more than enthusiasm. It demands patience, responsibility and the willingness to listen to the people being supported. *Every activity became an opportunity to see the community through someone else's experience.*

At the beginning of the programme, some participants were uncertain about their roles and waited for instructions from the organisers. As the weeks progressed, they became more comfortable taking responsibility and making decisions. Group activities required them to communicate clearly, divide tasks and solve problems collectively. Gradually, they moved from being passive participants to active organisers. Some took the initiative to develop Standard Operating Procedures and Organizational registration frameworks that could support the management of future volunteer activities. This shift demonstrated that the programme was not merely creating volunteers for a single project; it was developing young people who could help design, organise and sustain community initiatives themselves.

The participants' feedback reflected this transformation. They described the training modules as *"easy to understand, interactive and inspiring,"* and expressed a desire to continue contributing to their communities. Many also reported greater awareness of local social issues and a stronger

appreciation for the people and Organizations working to address them. Activities with older persons and persons with disabilities were particularly meaningful because they allowed participants to move beyond assumptions and develop a more empathetic understanding of different life experiences. The satisfaction they gained did not come from financial reward but from seeing how their time and effort could make a visible difference.

Maintaining consistent participation, however, was challenging. Some young people had family responsibilities, work commitments or other demands on their time, particularly during weekends. Rather than interpreting inconsistent attendance as a lack of commitment, the organising team reviewed the schedule and introduced more flexible arrangements. Workshops and lighter activities were shifted to weekday afternoons or evenings, while physically demanding programmes such as community clean-ups and leadership camps remained on weekends, when participants had longer periods available. This adjustment helped the programme accommodate the realities of participants' lives while maintaining its learning objectives.

All 30 participants successfully completed the programme, gaining practical experience in community engagement, communication, teamwork and volunteer coordination. One of its most important outcomes was the completion of a structured volunteer-training module. This resource captured the knowledge and methods developed throughout the initiative and created a foundation for future programmes. New groups of volunteers can use the module to learn about community service, activity planning, social responsibility and the Sustainable Development Goals, allowing the project's benefits to extend beyond its first cohort.

The initiative contributes directly to SDG 4: Quality Education by providing accessible, practical learning in civic responsibility and leadership. Its gotong-royong, recycling and neighbourhood-improvement activities support SDG 11: Sustainable Cities and Communities, while engagement

with older persons and persons with disabilities contributes to SDG 10: Reduced Inequalities. Collaboration among young people, NGOs, community members and the local public sector also reflects SDG 17: Partnerships for the Goals. Together, these contributions demonstrate that youth volunteerism can become an important platform for both personal development and sustainable community building.

The Program Membina Sukarelawan Komuniti Madani accomplished more than organising community activities. It helped young people recognise that they had the ability to lead, organise and respond to the needs around them. By painting murals, supporting vulnerable groups, improving neighbourhood spaces and developing systems for future volunteers, the participants became part of a wider effort to strengthen civic life in Kota Bharu. They entered the programme looking for a place to contribute and completed it with the confidence to create opportunities for others to serve.

Moving forward, Koperasi Amal Kelantan Berhad plans to sustain the initiative through microfunding activities, charity sales and continued use of the volunteer-training module. The systems developed by participants can support the recruitment and preparation of future volunteers, while the first cohort can take on mentoring and leadership responsibilities. The spirit of volunteerism in Kota Bharu has been awakened, but its continued growth will depend on maintaining accessible platforms where young people feel welcomed, guided and valued. With sustained support, these 30 participants can become the foundation of a stronger and more compassionate culture of service across Kelantan.





KICKING OFF A BETTER FUTURE: THE BUKIT KEPAYANG STORY

Organization: Persatuan Belia MBFM Felda Bukit Kepayang
Parliament: P.090 Bera
Project Title: Klinik Bolasepak Peringkat Akar Umbi Felda Bukit Kepayang Funding
Allocation: RM30,000.00
Email: nazernaim93@gmail.com

In the rural community of Felda Bukit Kepayang in Bera, Pahang, parents and community leaders were becoming increasingly concerned about how children and teenagers were spending their free time. With few structured recreational opportunities available, some young people had developed a habit of loitering, while others were exposed to dangerous motorcycle riding, cigarettes and prohibited substances. Excessive time spent using digital devices and watching television also contributed to increasingly sedentary lifestyles. Recognising that young people needed a safe and constructive environment in which to direct their energy, Persatuan Belia (MBFM) Felda Bukit Kepayang decided to use the universal language of football to create positive change.

Led by Project Manager Nazir bin Na'im and Secretary Muhammad Azan Shafie bin Harun, the association introduced the Klinik Bola Sepak Peringkat Akar Umbi Felda Bukit Kepayang. Conducted from June to August 2025, the three-month grassroots football clinic was designed to strengthen physical fitness, discipline, confidence and teamwork among local children and teenagers. The programme provided them with a regular routine and a shared goal, replacing unstructured free time with training, friendship and healthy competition.

The clinic involved 50 participants between the ages of six and 17, comprising both boys and girls from the Felda Bukit Kepayang community. Training began with basic football skills, including ball control, passing, dribbling and fundamental touches. As participants became more comfortable, they progressed to one-on-one techniques, tactical awareness, goalkeeping and match preparation. Friendly matches allowed them to apply their skills in competitive situations, while also learning how to respond to pressure, respect decisions and cooperate with their teammates. *Football became more than a game; it became a practical classroom for discipline, resilience and responsibility.*

At the beginning of the programme, participants displayed very different levels of fitness, coordination and concentration. Some lacked the stamina required to complete training activities, while younger children between six and nine years old found it difficult to remain focused for long periods. Instead of expecting all 50 participants to follow the same routine, coaches divided them according to their physical abilities and learning needs. Mini-games were introduced to make the sessions more engaging for younger players, while jogging, cone drills and resistance-band exercises helped older participants improve their leg strength and endurance. This adaptive approach allowed every child to progress without feeling left behind.

As the weeks passed, the transformation became increasingly visible. Participants who initially struggled to follow instructions began demonstrating greater discipline and concentration. Their physical stamina improved, and many became more confident communicating with teammates and taking part in group activities. Teachers reported that students who attended the clinic became more active and willing to participate in school programmes. The changes extended beyond the football field, suggesting that the confidence, discipline and teamwork developed during training were influencing other aspects of their lives.

The clinic also created new opportunities for girls in the community. Several female participants gained sufficient confidence and interest to join

a local women's futsal team and begin participating in weekly training sessions. Their involvement challenged the perception that competitive football activities were primarily for boys. By creating an inclusive environment, the programme allowed girls to develop athletic skills, form new friendships and take a more visible role in community sports.

Several promising participants also attracted attention during friendly matches and were identified for potential opportunities with established football academies and clubs. Although not every participant was selected for higher-level competitions, the exposure showed them that commitment and consistent training could open new pathways. When some players became disappointed after not being selected for major tournaments, the organisers worked with football clubs in surrounding districts to secure additional competition opportunities. This ensured that every participant could experience playing in a tournament and helped protect the confidence and motivation built throughout the programme.

Community members observed that the participants' changing routines contributed to a reduction in harmful and unproductive activities. The final evaluation recorded a noticeable decline in loitering and dangerous motorcycle riding among the young people involved.

"The culture of loitering and dangerous motorcycle riding has clearly decreased drastically."

The organisers also emphasised the importance of providing alternatives to excessive screen time and inactivity.

"Projects like this need to be carried out more widely. In today's era of technological advancement, the community must find initiatives that enable children to remain active instead of focusing only on gadgets and television."

The project's impact extended to the participants' families and the wider community. Local mothers supported the clinic by preparing food and

coordinating participant logistics, while coaches, parents and youth leaders worked together to maintain attendance and organise activities. This shared effort strengthened relationships across the community and demonstrated that youth development is not the responsibility of trainers alone. It requires parents, schools, community Organizations and local leaders to create a supportive environment around young people.

The initiative contributes directly to SDG 3: Good Health and Well-Being by encouraging physical activity and healthier lifestyles. It supports SDG 4: Quality Education through informal learning in discipline, teamwork and leadership, while advancing SDG 5: Gender Equality through the inclusion of girls in football and futsal. By providing a safe, structured community space for young people, the project also contributes to SDG 11: Sustainable Cities and Communities and SDG 16: Peace, Justice and Strong Institutions through the prevention of risky behaviour and the promotion of responsible participation.

All 50 participants completed the three-month programme, but the project's success cannot be measured by numbers alone. Its deeper impact can be seen in children who became more active at school, girls who continued into women's futsal and young players who discovered opportunities with football clubs and academies. *Each training session redirected energy that might have been spent loitering or using gadgets into movement, friendship and personal growth.*

The community is now working towards establishing a permanent grassroots football academy that can provide weekly training and continuous tournament opportunities. This would allow new participants to join while enabling the first group to continue developing their abilities. With sustained coaching, family participation and partnerships with surrounding football clubs, the positive changes initiated by the clinic can continue for years to come. In Felda Bukit Kepayang, football did more than produce stronger players, it brought the community together to protect, guide and invest in its next generation.











GROWING INDEPENDENCE: INCLUSIVE HYDROPONIC FARMING AT PPDK TELUK BAHANG

Organization: PPDK Teluk Bahang, Pulau Pinang
Parliament: P.053 Balik Pulau
Project Title: Sistem Agroteknologi Bersepadu Untuk Memperkasakan PPDK Teluk Bahang
Funding Allocation: RM40,000
Email: wadahilham@gmail.com

At PPDK Teluk Bahang in Pulau Pinang, rows of vegetables growing from vertical hydroponic towers have become symbols of ability, confidence and growing independence. For adults with disabilities, access to suitable vocational training and income-generating opportunities can be limited, particularly in rural communities where specialised programmes and resources may not be readily available. Recognising the potential of sustainable agriculture to address these challenges, PPDK Teluk Bahang introduced the Sistem Agroteknologi Bersepadu untuk Memperkasakan PPDK Teluk Bahang project under the leadership of Zuki bin Hasan. The three-month initiative used integrated hydroponic vertical farming to help participants develop practical agricultural skills while creating opportunities for social participation and supplementary income.

The project engaged 20 participants, including adults with disabilities, PPDK trainees and staff members from the Teluk Bahang community. Hydroponic farming was selected because it could produce vegetables within a relatively small space while providing participants with structured, repeatable activities. Instead of working only with theoretical materials, they learned through direct involvement with actual hydroponic systems, vertical farming towers and reusable planting equipment. The practical

approach allowed participants to see how every activity, from preparing seedlings to monitoring plant growth, contributed to the final harvest.

Participants were introduced gradually to planting techniques, crop care, harvesting, recordkeeping and basic marketing. Each task was explained and demonstrated before participants attempted it themselves with support from trainers and facilitators. Planting encouraged careful hand movements, while monitoring the crops strengthened attention and responsibility. Harvesting required participants to recognise when vegetables were ready, and recordkeeping introduced them to the importance of tracking production and sales. *The hydroponic towers became more than agricultural equipment; they became practical learning spaces where participants could develop skills at their own pace.*

PPDK Teluk Bahang worked closely with experienced trainers, technical specialists and the Department of Agriculture to ensure that the system was managed effectively. This collaboration provided the Organization with technical advice while giving participants access to continuous guidance. Staff members also played an important role in creating an inclusive and supportive environment where participants could ask questions, repeat activities and receive assistance when necessary. Rather than focusing only on how quickly tasks were completed, the programme emphasised participation, consistency and gradual improvement.

The implementation process was not without challenges. Market-price fluctuations affected the value of the harvested vegetables, while some participants initially found it difficult to respond quickly to technical or operational problems. The project team addressed these challenges through regular monitoring, simplified instructions and repeated practical guidance. Participants were also encouraged to practise suitable hydroponic activities at home, allowing them to strengthen their familiarity with the system and develop greater confidence in managing small-scale food production independently.

As the plants grew, participants began experiencing the satisfaction of seeing the results of their work. Vegetables cultivated through the project were sold at local markets and within the surrounding community, generating approximately RM300 per month in collective additional income. The proceeds were distributed to trainees as allowances and incentives, providing them with pocket money while motivating continued participation. Although the amount was modest, it carried considerable meaning for participants who had previously experienced limited opportunities to earn through their own practical efforts.

"We are very happy to join this project because we can learn farming skills and also earn extra money. The hydroponic activities are enjoyable and give us confidence to do more on our own in the future." , Project participant

The participants' enthusiasm showed that the project's value extended beyond vegetable sales. The structured activities strengthened teamwork, motor coordination, financial awareness and a sense of responsibility. Participants became increasingly motivated as they realised that their daily tasks contributed to food production and income generation. Their involvement also helped demonstrate their capabilities to staff members, families and the surrounding community. *Every vegetable harvested represented not only successful cultivation but also the effort and growing independence of the participant who cared for it.*

The initiative contributes directly to SDG 4: Quality Education by providing accessible and practical agricultural learning. It supports SDG 8: Decent Work and Economic Growth through skills development and small-scale income generation, while advancing SDG 10: Reduced Inequalities by creating meaningful opportunities for persons with disabilities. Its efficient use of space and reusable planting materials contributes to SDG 12: Responsible Consumption and Production, while local vegetable production supports SDG 2: Zero Hunger.

The project demonstrates that inclusive community farming can simultaneously support food production, vocational development and social empowerment. By providing suitable equipment, patient guidance and opportunities to participate in real agricultural activities, PPDK Teluk Bahang helped participants recognise that they could learn new skills and contribute economically. The income generated may have been small, but the confidence, motivation and sense of achievement developed through the programme created a foundation for continued growth.

Moving forward, PPDK Teluk Bahang plans to diversify the vegetables cultivated and expand its hydroponic activities. Continued collaboration with agricultural specialists, stronger marketing arrangements and regular participant support will be important for improving production and income. With sustained commitment, the vertical garden can remain a place where food and confidence grow together, demonstrating that when persons with disabilities are given appropriate opportunities and support, they can cultivate not only vegetables but also greater independence and a stronger role within their community.




PPDK TELUK BAHANG







FUTUREBOTS EXPLORER: DISCOVERING IDEAS, CODING SOLUTIONS AND COMPETING WITH CONFIDENCE

Organization: Probino Solution
Parliament: P.018 Kulim Bandar Baharu
Project Title: FutureBots Explorer Program: Discover. Code. Compete.
Funding Allocation: RM30,000
Email: zpuru2306@gmail.com

In Kulim, Kedah, access to robotics and coding education is not equal for every child. Students from B40 and M40 families may be interested in technology but have limited access to robotics equipment, specialised trainers and practical learning opportunities. Without early exposure, many could miss the chance to discover their abilities in science, technology, engineering and mathematics. Recognising this digital learning gap, Probino Solution introduced the FutureBots Explorer Program: Discover. Code. Compete., creating an inclusive environment where students could explore technology regardless of their socioeconomic backgrounds.

Implemented from July to October 2025, the three-month programme engaged 14 students between the ages of 11 and 14. The participants were introduced to robotics, electronics, coding, artificial intelligence and problem-solving through structured hands-on activities. Rather than learning only through explanations and textbooks, they worked directly with affordable and reusable robotics kits. Using visual coding platforms such as MakeCode and PictoBlox, students learned how to design, assemble and programme Sumo and Soccer robots. The learning process enabled them to see how a sequence of digital instructions could control the movement and behaviour of a physical machine.

The project was led by Purushothman Munusamy, an educator and robotics trainer who founded Probino Solution in 2019 to make robotics and digital education more accessible to young learners. In 2021, the Malaysia Digital Economy Corporation recognised Probino Solution as a Digital Maker Hub for the Kulim area. Through collaborations with schools, Parent-Teacher Associations, Tech Dome Penang and community partners, the Organization has since conducted robotics talks, competitions and STEM training across Malaysia's Northern Region. This experience enabled the FutureBots programme to combine technical knowledge with an engaging and supportive learning approach suited to younger students.

For many participants, assembling their first robot was both exciting and challenging. They had to understand how individual components worked together before programming the robot to move, respond and compete. When a robot failed to behave as expected, students were encouraged to examine the connections, review their coding logic and test alternative solutions. Technical problems became opportunities to develop patience and critical thinking. *Every malfunctioning robot presented a new question, and every successful correction showed the students that they were capable of finding an answer.*

As the programme progressed, students prepared for the District-Level PS Robotics Competitions. Their training expanded beyond constructing robots to include strategy, teamwork and decision-making under pressure. Sumo robots had to detect and push their opponents from the competition area, while Soccer robots required controlled movement and coordination. Drone and other robotics categories introduced additional technical demands. Simulation exercises allowed participants to experience competition-like situations, helping them understand how to remain calm, analyse problems and make quick adjustments.

The final month presented several challenges. Schoolwork and academic commitments limited the time available for competition preparation, while technical issues occasionally interrupted robotics-practice sessions.

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Students were also preparing for several categories at the same time and had to switch quickly between different concepts, rules and strategies. Facilitators responded by reorganising the training schedule, introducing focused practice sessions and providing additional troubleshooting support. This adaptive approach helped students use their limited preparation time effectively while maintaining their motivation and confidence.

Their commitment produced encouraging results. Keshvin A/L Letchumanan secured first place in both the Secondary School RoboDrone and RoboSumo categories, while Rithika Saravanakumar achieved first place in the Primary School RoboSumo Challenge. Several other participants finished among the top five in the RoboDrone, RoboSumo and RoboSoccer categories. These achievements reflected not only the effectiveness of the training but also the students' willingness to practise, collaborate and learn from technical setbacks.

The programme's wider impact was visible in the students' growing confidence and enthusiasm. Participants reported that practical training helped them understand robotics concepts, coding applications and competition strategies more clearly. They also appreciated the approachable guidance provided by the trainers, which made unfamiliar technologies feel less intimidating. For some students, the programme introduced possibilities in robotics, drones, coding and artificial intelligence that they had never previously considered.

"Through the programme, I learned about Sumo robots, Soccer robots, micro:bit technology, mBot systems and drones in a practical and exciting way. It strengthened my technical and critical-thinking skills and gave me greater confidence. I hope the programme continues so that more students can experience robotics and technology.", Participant reflection.

Although the project was not designed to generate immediate income, it developed abilities that could influence participants' future educational


MALAYSIA MADANI
TVET MADANI
ROBOT COMPETITION
2025 SIRI -3
5 SEPT 2025
1 KG SUMO ROBOT
500 G SUMO ROBOT
UPCOMING ROBOTIC EVENT
PIRC2026
ROAD TO JAPAN






STEM
2024


STEM
2024

AI EXPLORERS: FROM THE CLASSROOM TO THE INTERNATIONAL INNOVATION STAGE

Organization: Lembaga Pengelola Sekolah (LPS) SJK (T) Sungai Ara
Parliament: P.052 Bayan Baru
Project Title: AI Explorers - Future Innovators Program
Funding Allocation: RM30,000
Email: richard_elias8@yahoo.com.sg

At SJK(T) Sungai Ara in Penang, a group of primary school students is discovering that Artificial Intelligence is not only a technology used by scientists or large companies. It is something they can understand, experiment with and use to develop solutions for challenges in their own communities. For children from lower- and middle-income families, access to specialised robotics equipment, AI learning modules and digital mentors can be limited. Without early exposure, these students may never have the opportunity to discover their potential in science, technology, engineering and mathematics. The AI Explorers – Future Innovators Program was developed to close this gap by bringing emerging technologies directly into an inclusive primary-school learning environment.

Implemented by Lembaga Pengelola Sekolah SJK(T) Sungai Ara, the programme engaged 40 students between the ages of nine and 11. It built upon the school's Science Lab Transformation Project implemented in 2024 and expanded students' learning into coding, robotics, computer vision, generative AI and home automation. Through Quarky Kits and AI4Y modules, participants explored technology through direct experimentation rather than depending only on textbooks or conventional classroom explanations. They learned how to assemble components, write visual

code, test AI functions and improve their projects when the first attempt did not work as expected. Technology became more than something the students consumed, it became something they could question, design and create.

The project was led by Elias Alexander of LPS SJK(T) Sungai Ara, a programme-management professional with more than 15 years of experience in complex corporate and community initiatives. Under his leadership, the school implemented three consecutive APPGM-SDG projects: Agro Farm in 2023, Science Lab Transformation in 2024 and AI Explorers in 2025. His contribution to STEM development in Tamil schools was recognised through the National ICON Award in Kuala Lumpur, where he was selected as one of 12 recipients from more than 500 nominees. This progression from agriculture to science facilities and advanced digital learning reflected a longer-term vision of building an educational ecosystem in which students could develop knowledge continuously rather than participating in disconnected one-time activities.

During the programme, students were introduced gradually to complex technological concepts through practical and age-appropriate activities. They explored how computer vision allows a machine to recognise visual information, how generative AI can produce new content and how automated systems can respond to programmed instructions. Home-automation activities helped students connect abstract coding concepts with familiar daily situations. By working in teams, they learned how to divide responsibilities, explain ideas and solve technical problems together. When a programme failed or a component did not respond correctly, facilitators encouraged students to examine the system, identify the problem and try again. Every technical difficulty became a lesson in patience, creativity and critical thinking.

Maintaining consistent attendance was one of the project's main challenges because many sessions took place outside regular classroom hours. Irregular participation risked interrupting the sequence of learning,

particularly because later AI and robotics modules depended on concepts introduced earlier. Teachers and project organisers contacted parents directly to explain the importance of attendance and the longer-term value of STEM education. Modules 11 to 16 were incorporated into official school hours to make participation more accessible, while recognition and rewards were introduced to encourage commitment. These adjustments helped reduce attendance barriers while reinforcing the idea that digital learning should form part of students' educational development rather than remain an optional extracurricular activity.

The students responded enthusiastically to the hands-on format. They described the sessions as enjoyable, interactive and easy to follow, despite the advanced nature of some concepts. Working directly with robotics and AI tools gave them the confidence to build projects, present their ideas and collaborate with classmates. Teachers observed improvements not only in technical understanding but also in creativity, communication and willingness to speak publicly. The programme helped students see that AI could be used for more than entertainment; it could become a tool for addressing practical problems in areas such as waste management, environmental protection and daily living.

One of the programme's most inspiring journeys was that of Daalini Elias and her teammates from Team AI Avengers. Using the knowledge and confidence developed through the initiative, the students created the Ecobot Sorter, an AI-based project designed to support waste segregation. The project required them to connect coding, robotics and environmental problem-solving within one working innovation. Their effort led to success at the Codeavour National Competition, where three participating students emerged as winners and qualified to represent Malaysia internationally in Jakarta.

"The programme introduced us to AI and coding and gave us the opportunity to participate in Codeavour 7.0. Through Team AI Avengers, we developed the Ecobot Sorter to help separate waste. Winning at the national level and

qualifying to represent Malaysia in Jakarta made us proud of our team, our school and our country.”, Daalini Elias, programme participant

The achievement demonstrated what can happen when students are given access to appropriate tools, mentorship and a platform to present their ideas. The Ecobot Sorter was not simply a competition entry. It represented the students’ ability to connect technology with a real environmental challenge and transform an idea into a functional project. Their journey from a school learning session in Penang to an international competition showed that talent can emerge anywhere when opportunity is made accessible.

Although the programme was not designed to generate financial income, it created long-term educational value. The school established an AI learning ecosystem through reusable Quarky Kits, AI4Y modules and teacher-capacity development. Four teachers were trained to conduct future AI activities independently, reducing reliance on external facilitators and ensuring that the equipment and learning materials could benefit new student cohorts. Teacher training also strengthened the programme’s scalability because AI learning could be incorporated into future workshops, school projects and competition preparation.

The initiative contributes directly to SDG 4: Quality Education by providing accessible, practical learning in emerging technologies. It advances SDG 10: Reduced Inequalities by extending specialised STEM opportunities to students who may have limited access because of their socioeconomic backgrounds. Its development of digital literacy, innovation and future-ready skills contributes to SDG 8: Decent Work and Economic Growth, while collaboration among the school, families, APPGM-SDG, Tech Dome Penang and other partners reflects SDG 17: Partnerships for the Goals.

The project demonstrated that primary-school students are capable of engaging with advanced technologies when the concepts are introduced through practical, supportive and age-appropriate methods. More importantly,

it showed that inclusive access to AI education can strengthen students' confidence and aspirations long before they begin making decisions about higher education or careers. Their value cannot be measured through immediate income; it lies in the knowledge, curiosity and belief in their own potential that they carry forward.

Moving ahead, SJK(T) Sungai Ara plans to continue its collaboration with Tech Dome Penang, expand teacher-led AI activities and use the reusable learning resources with future student cohorts. The school also intends to increase participation in AI workshops, innovation showcases and robotics competitions. With trained teachers, established equipment and students who have already demonstrated national-level success, the programme has created a strong foundation for a lasting STEM culture. *The AI Explorers began by learning how technology works; they completed the programme understanding that they could use it to shape a better future.*






CODE AVOUR
INTERNATIONAL
SANDISK
AWARD CEREMONY




Sekolah Jenis Kebangsaan Tamil Sungai Ara
RISE TOGETHER,

HARVESTING TOGETHER: HOW HYDROPONICS STRENGTHENED THE POKOK ASSAM COMMUNITY

Organization: Masjid At-Taufiqiah Khairiah Pokok Assam Mukim Tupai, Pokok Assam, Taiping, Perak
Parliament: P.060 Taiping
Project Title: Hydroponic - Hygrowpot Linkage Technique (Phase 1)
Funding Allocation: RM40,000
Email: paksuperasa@yahoo.com

At Mukim Tupai in Pokok Assam, Taiping, Masjid At-Taufiqiah Khairiah has long served as more than a place of worship. Registered under the Perak Islamic Religious Department, the mosque also functions as a platform for social support, community learning and livelihood development. Its previous collaboration with Pertubuhan Kebajikan Masyarakat Marhaen Taiping on food-security programmes established a foundation for further community agriculture. Building upon this experience, the mosque introduced the Hydroponic–Hygrowpot Linkage Technique Project (Phase 1) to help residents produce fresh vegetables, develop practical farming skills and create opportunities for supplementary income.

Led by Shahabuddin bin Haji Ashari, the initiative brought together 15 senior citizens and participants from B40 households. For some older participants, retirement had reduced their opportunities to remain physically active and socially engaged, while rising living costs created a need for additional household support. The project offered them a shared activity that could be managed according to their abilities and available time. Participants came from different backgrounds, but the responsibility of caring for the crops gave them a common purpose and strengthened relationships within the neighbourhood.

The project focused on cultivating high-demand leafy vegetables, including *sawi bunga,* pak choy, salad greens and *bayam*. Participants learned to manage a structured hydroponic system using the Hygrowpot Linkage Technique, which delivered water and nutrients efficiently to plants grown within a limited area. They were introduced to seedling preparation, transplanting, nutrient management, system maintenance, crop monitoring and harvesting. This approach enabled the community to produce clean, fresh vegetables consistently without requiring a large plot of agricultural land. Where no synthetic pesticides were applied, this also became a point of interest for consumers seeking locally produced vegetables.

Managing the farm required careful planning because many participants were older and could not spend long periods performing physically demanding tasks. The project team therefore developed a flexible duty roster that allowed individuals to contribute according to their schedules and physical abilities. Activities were simplified and distributed across the group so that no participant was overburdened. Lighter tasks, such as checking plant growth or preparing materials, could be assigned to those with mobility limitations, while more physically capable participants managed heavier maintenance work. *The success of the garden depended not on everyone doing the same task, but on each person contributing in a way that was manageable and meaningful.*

Marketing presented another challenge because two established wet markets already supplied fresh vegetables within the area. Competing solely on price or volume would have been difficult for a small community initiative. The participants therefore adopted a more local and relationship-based strategy. Vegetables were promoted through WhatsApp groups and sold at selected locations around the village. The team emphasised freshness, local production and direct support for a community-managed project. This direct-to-consumer approach helped the group build its own customer base instead of relying entirely on conventional market channels.

Between November 2025 and March 2026, participants completed three successful harvest cycles and produced approximately 350 kilograms of vegetables. Sales within the community generated around RM4,000, while part of the harvest was shared among participants for household consumption. The distribution of vegetables reflected the project's dual purpose: generating supplementary income while strengthening access to fresh food. Although the earnings were modest when divided across the group and operating costs, they demonstrated that a community-managed hydroponic system could produce measurable social and economic value.

The participants' satisfaction extended beyond the harvest and sales. Senior citizens appreciated having a productive activity that filled their free time, encouraged gentle physical movement and allowed them to interact regularly with neighbours. Working together strengthened ukhwah, or community bonds, as participants exchanged knowledge, solved problems and celebrated each successful harvest. *Every bundle of vegetables represented not only food and income but also the time, cooperation and care contributed by the community.*

An important outcome was the transfer of knowledge from the shared farm into participants' homes. Several individuals established small hydroponic systems for personal food production. Their willingness to apply the technique independently showed that the programme had developed practical confidence rather than short-term participation alone. Home-based cultivation also extended the project's food-security benefits because families could continue producing selected vegetables even outside the community site.

One participant described the wider value of the experience:

"The project helped us use our free time meaningfully, earn some additional income and strengthen our relationships with our neighbours. We also felt proud to harvest vegetables that we had grown together."

The project provided several valuable lessons for future community initiatives. Programmes involving older participants must be designed around their physical abilities, available time and comfort. Flexible schedules and fair task distribution can address manpower limitations without excluding those who require additional support. Marketing must also reflect local realities; when established sellers already dominate the market, community projects may achieve better results through direct customer relationships, freshness and a strong local identity.

The initiative contributes directly to SDG 2: Zero Hunger by strengthening local vegetable production and household access to fresh food. It supports SDG 3: Good Health and Well-Being through active participation and social interaction among older community members. Practical learning contributes to SDG 4: Quality Education, while vegetable sales and supplementary income support SDG 8: Decent Work and Economic Growth. Its efficient use of space and water also contributes to SDG 12: Responsible Consumption and Production, while its community-centred approach reflects SDG 11: Sustainable Cities and Communities.

The Hydroponic–Hygrowpot Linkage Technique Project demonstrates that modern agriculture can be adapted successfully to a community setting when the system remains practical and inclusive. Large areas of land were not required; structured planning, suitable technology and collective responsibility enabled the participants to produce 350 kilograms of vegetables within three harvest cycles. More importantly, the initiative created a space where senior citizens and B40 participants could remain active, develop new abilities and contribute visibly to their community.

Looking ahead, Masjid At-Taufiqiah Khairiah plans to sustain and potentially expand the initiative through continued crop diversification, improved marketing and stronger community participation. Future development should build upon the flexible duty system and encourage more households to establish small-scale hydroponic units. *In Pokok Assam, the project has shown that when modern farming is rooted in community spirit,*

it can grow far more than vegetables, it can cultivate purpose, resilience and stronger neighbourly ties.











REVITALISING RURAL TOURISM: THE COMMUNITY-LED TRANSFORMATION OF NUNUK RAGANG

Organization: Persatuan Eksplorasi Pelancongan Sabah (PES)
Parliament: P.179 Ranau
Project Title: Pelan Pembangunan Pelancongan Berasaskan Komuniti (CBT), Kg. Nunuk Ragang
Funding Allocation: RM30,000
Email: PESabah2023@gmail.com

Along the main road connecting Sabah's east and west coasts lies Kampung Nunuk Ragang and a network of surrounding Dusun villages rich in biodiversity, cultural heritage and traditional knowledge. Visitors travelling through the area can encounter village lifestyles, local food, cultural practices, oral histories and natural landscapes that are distinctive to the region. Yet many of these assets remained undocumented, under-promoted or disconnected from formal tourism networks. Tourism activities that had existed before the COVID-19 disruptions beginning in 2020 struggled to recover, and several community sites became inactive. Without coordinated planning, professional promotional materials and stronger connections with tourism agencies, the villages found it difficult to transform their cultural and environmental strengths into sustainable community opportunities.

Recognising this potential, Persatuan Ekplorasi Sabah implemented the Pelan Pembangunan Pelancongan Berasaskan Komuniti, Kg. Nunuk Ragang (Y25-SP099) under the Phase 3 grant initiative. The programme brought together eight villages to identify local attractions, strengthen tourism products and develop a more coordinated Community-Based

Tourism ecosystem. The project was founded on an important principle: the residents of Nunuk Ragang should not be passive beneficiaries or performers within a tourism model controlled by outsiders. They should be the planners, owners, storytellers and primary decision-makers shaping how their communities are presented to visitors.

The project began with engagement sessions, workshops and discussions designed to strengthen community understanding of Community-Based Tourism. Participants were introduced to tourism governance, business planning, product development, visitor management and sustainability. Instead of arriving with a predetermined list of attractions, facilitators encouraged each village to identify its own strengths. Cultural practices, traditional dishes, local stories and natural sites that residents had previously regarded as ordinary parts of daily life gradually became recognised as valuable elements of a visitor experience. *The process helped communities look at familiar places and traditions through a new lens, without losing sight of their cultural meaning.*

As the programme progressed, villagers began documenting tourism assets and defining the identity of each participating community. They explored how individual experiences could be packaged more systematically, how visitors might move through the area and how villages could collaborate without losing their distinctiveness. Participants also discussed pricing, customer expectations, safety, basic business management and the responsibilities involved in receiving guests. Tourism gradually became understood not as an informal or seasonal activity but as a community enterprise requiring planning, consistency and collective decision-making.

Working across eight villages created a valuable network, but it also introduced significant challenges. The communities had different experiences, leadership structures and levels of readiness. Some were already accustomed to hosting visitors, while others were encountering tourism planning for the first time. Consequently, participants progressed

at different speeds and did not always interpret the training modules in the same way. Applying one fixed approach across every village would have risked excluding communities that required more time or additional guidance.

Persatuan Ekplorasi Sabah therefore served as a bridge among village leaders, residents, government agencies, tourism stakeholders and strategic partners. Communication and training methods were adapted according to the readiness of each community. Village leaders helped mobilise participation, while facilitators maintained regular engagement to build trust and address concerns. Rather than forcing all communities to achieve identical outcomes at the same pace, the project allowed each village to contribute according to its capacity. *The initiative moved forward not by making every village the same, but by finding ways for their different strengths to complement one another.*

This flexible approach gradually strengthened confidence and collaboration. Villagers who had initially been hesitant began contributing ideas and participating more actively in planning discussions. Communities also started viewing neighbouring villages as potential partners rather than competitors. A visitor attracted by one village's cultural activities could be introduced to food, accommodation, nature or craft experiences in another. This networked model created the possibility of a wider Nunuk Ragang tourism journey in which benefits could be distributed across several communities.

One of the project's most important achievements was the development of a Community-Based Tourism Development Plan for every participating village. These plans helped each community identify its tourism products, clarify local roles and outline future activities within the wider Nunuk Ragang ecosystem. A shared Business Model Canvas was also developed to strengthen understanding of operating costs, income sources, customer groups, partnerships and long-term value. For communities with limited previous exposure to formal business planning, these tools transformed

ideas into clearer and more actionable pathways.

The programme also established a more coordinated pricing and cost structure for CBT packages. Transparent and consistent pricing was important for reducing misunderstandings among tourism operators and ensuring that community members were compensated fairly for their time, knowledge and products. Village profiles and tourism-product documentation were developed as professional reference and promotional materials. These resources can support future marketing, registration, funding applications and partnerships while helping the villages present their experiences more consistently to visitors and agencies.

Although the initiative focused primarily on planning and capacity-building rather than immediate tourism revenue, it created a foundation for future income through guided experiences, accommodation, traditional food, cultural activities, local products and nature-based tourism. Participants became more confident in discussing tourism operations and recognised that their community knowledge could have economic value when managed respectfully. At the same time, they understood that tourism should support cultural preservation rather than reshape traditions solely to satisfy visitors.

The initiative contributes directly to SDG 11: Sustainable Cities and Communities through the protection and promotion of cultural and natural heritage. It supports SDG 8: Decent Work and Economic Growth by developing pathways for rural tourism and community enterprise, while advancing SDG 10: Reduced Inequalities by strengthening the participation of rural and Indigenous communities in tourism planning. Its attention to biodiversity and environmental responsibility contributes to SDG 15: Life on Land, while collaboration among eight villages, agencies and tourism partners reflects SDG 17: Partnerships for the Goals.

Several lessons emerged from the project. Community readiness cannot be assumed, and capacity-building must be tailored to local experience. Trust

develops through continuous engagement rather than one-time consultations, while village leadership is essential for maintaining participation and resolving concerns. Most importantly, sustainable tourism development is a medium- to long-term process. Planning documents and promotional materials provide direction, but communities will still require mentoring, market connections, operational experience and monitoring after the formal programme concludes.

The project has laid the groundwork for a more inclusive and coordinated tourism ecosystem in Nunuk Ragang. Eight villages now possess clearer development plans, shared business tools, more consistent pricing structures and stronger documentation of their tourism assets. Its deeper achievement, however, is the shift in community perspective. Residents increasingly see themselves not merely as people living near potential attractions but as owners and leaders of the destination's future.

Nunuk Ragang's story is not about turning villages into products. It is about enabling communities to welcome visitors on their own terms, share their heritage with dignity and ensure that tourism strengthens rather than diminishes the culture and environment that make the area unique.







CURIOSITY IN ACTION: EMPOWERING RURAL YOUTH THROUGH STEM AND THE SDGS

Organization: LEARNADO EDTECH PLT
Parliament: P.187 Kinabatangan
Project Title: C.U.R.I.O.U.S SABAH (Challenge, Understand, Re-Invent, Optimise, Unveil STEAM)
Funding Allocation: RM30,000
Email: asril@learnado.my

In Kinabatangan, Sabah, science is present in the rivers, forests, weather and daily experiences of local communities. Yet many rural students have limited opportunities to explore these scientific connections through practical learning. Insufficient resources, few hands-on activities and an emphasis on classroom theory can make science feel distant from everyday life. For students from underserved and B40 communities, this gap may reduce their interest in STEM subjects and limit their awareness of future educational and career pathways. As science, technology, engineering and mathematics become increasingly important across industries, providing meaningful early exposure is essential to prevent rural students from being left behind.

Recognising this challenge, LEARNADO EDTECH PLT and APPGM-SDG introduced C.U.R.I.O.U.S Sabah, Challenge, Understand, Re-Invent, Optimise and Unveil STEAM (Y25-SP051). Rather than teaching science only through explanations and written exercises, the programme adopted an interactive, game-based approach that encouraged students to investigate, collaborate and solve problems. Phase 1 demonstrated that science education could become more engaging when activities were practical,

enjoyable and connected to the students' community environment.

The Phase 1 impact findings were encouraging. Approximately 91% of participating students reported gaining new science-related skills, while 70% became better able to relate scientific concepts to daily life. Around 61% expressed greater interest in pursuing STEM-related studies, and 55% reported increased interest in STEM careers. These results showed that students responded positively when learning moved beyond memorisation and allowed them to experiment with ideas. *Science became more meaningful when students could see, touch and apply what they were learning.*

Building upon these outcomes, Phase 2 expanded the initiative to reach additional schools in Bukit Garam and the wider Kinabatangan area. Through the Science and SDG Explorace, 84 secondary-school students between the ages of 13 and 16 participated in activities that combined scientific learning with Sustainable Development Goal awareness. The Explorace format transformed lessons into a series of team-based challenges. Students had to communicate, think critically and apply knowledge within a limited time, making the experience both educational and exciting.

The activities were carefully connected to issues familiar to the students, particularly flooding. Kinabatangan communities regularly experience flood risks, making preparedness and survival knowledge directly relevant to participants' lives. Through practical simulations, students explored how science could support decisions before, during and after a flood. They considered environmental conditions, safety, available resources and community responses rather than studying floods only as an abstract topic. *A challenge experienced by their own community became a practical classroom for science, resilience and problem-solving.*

Teamwork formed an important part of the learning experience. Students worked in groups to complete SDG-related challenges, share ideas and develop solutions. Friendly competition increased their motivation, but

success depended on cooperation rather than individual performance alone. Participants discovered that complex sustainability problems require different perspectives and abilities. One student might understand a scientific concept, while another might contribute creativity, communication or practical thinking. This approach helped participants recognise that innovation is often a collective process.

Student participation remained strong throughout the programme. Participants actively engaged in discussions, practical tasks and problem-solving exercises. Feedback from the completion phase showed greater awareness of the Sustainable Development Goals and a stronger understanding of flood preparation and survival. Students were also able to recognise that STEM knowledge could help address challenges within their own villages and districts. This connection made the learning more memorable and strengthened their confidence in discussing scientific and environmental issues.

One of the project's most important lessons was the value of localising educational content. Generic examples may explain a scientific principle, but they do not always help students understand why it matters. By using floods, environmental sustainability and community resilience as learning contexts, the programme connected scientific knowledge with situations the students had observed or experienced. This approach improved relevance, participation and knowledge retention. *The students did not have to imagine why science was useful, they could recognise its value in the world around them.*

Implementing an interactive programme in a rural area nevertheless required careful planning. Travel, equipment, venue arrangements and communication with participating schools created logistical demands. LEARNADO EDTECH PLT found that a proper needs assessment was essential before activities were designed. Understanding students' educational backgrounds, available resources and community realities allowed the facilitators to adapt the content appropriately. The success of

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both phases reinforced that rural location is not a barrier to meaningful STEM learning when programmes are designed around local needs.

The initiative contributes directly to SDG 4: Quality Education by providing inclusive, practical STEM learning. It supports SDG 10: Reduced Inequalities by extending educational opportunities to students from underserved and B40 communities. Activities related to flood preparedness contribute to SDG 11: Sustainable Cities and Communities and SDG 13: Climate Action, while the development of teamwork, creativity and future-ready skills supports SDG 8: Decent Work and Economic Growth.

The project's impact cannot be measured only through percentages or the number of students who completed the Explorace. Its deeper value lies in changing how young people view science. Students who may previously have considered STEM difficult or disconnected from their lives were given an opportunity to experience it as practical, collaborative and relevant. They gained confidence in asking questions, testing ideas and presenting solutions.

C.U.R.I.O.U.S Sabah demonstrates that effective rural STEM education does not begin with expensive technology alone. It begins with curiosity, appropriate guidance and learning experiences connected to the community. Through game-based activities, SDG awareness and locally relevant challenges, 84 students discovered that science could help them understand and respond to the world around them.

The young people of Kinabatangan were not simply taught scientific facts; they were encouraged to become explorers of their environment, problem-solvers within their communities and future innovators capable of building a more resilient Sabah.











CONNECTING COMMUNITIES: THE ARAM BEGEMPURU OUTREACH INITIATIVE IN LUBOK ANTU

Organization: Sarawak Dayak Graduate Association
Parliament: P.203 Lubok Antu
Project Title: Aram Bergempuru: Lubok Antu Community Awareness & Outreach Program
Funding Allocation: RM40,000
Email: sarawakdga@gmail.com

In the rural district of Lubok Antu, access to reliable information can be as important as access to physical services. Government assistance, education opportunities, healthcare information and development announcements are increasingly communicated through websites, applications and other digital platforms. However, unstable internet coverage and limited digital literacy make it difficult for residents of remote longhouses to obtain timely information or complete online procedures. For many families, seeking clarification requires travelling to administrative centres in Sri Aman or Betong, adding transportation costs and time away from work and household responsibilities.

Within the longhouse system, the Tuai Rumah often serves as the primary link between residents and government agencies. Yet many longhouse leaders are older and may be less familiar with digital applications and technology-dependent procedures. Even when an outreach programme reaches the community, residents can face difficulties during follow-up because instructions are unclear, documents must be submitted online or the responsible office is located far away. An APPGM-SDG issue-mapping exercise identified this widening information gap as an important barrier to rural inclusion in Lubok Antu.

Recognising these challenges, the Sarawak Dayak Graduates Association, led by President Ts. Rizzo Mungka, introduced the Aram Begempuru: Lubok Antu Community Awareness and Outreach Program (Y25-SP124) with support from an APPGM-SDG microgrant. The three-month initiative was designed as a bridge connecting rural communities with services and opportunities often concentrated in urban centres. Instead of expecting villagers to travel from one agency to another, the programme brought government departments, educational institutions, healthcare providers and community Organizations directly to Lubok Antu.

The journey began at Rumah Panjai Sebangki Panjai, where residents joined a panel discussion titled Empowering Communities: Welfare, Education and Health Towards a Better Future. Representatives from the Lubok Antu Social Welfare Department, KPJ Kuching Specialist Hospital and Universiti Teknologi MARA Samarahan engaged directly with residents. Health-awareness sessions introduced practical information about diabetes, hypertension and cholesterol, while the dialogue session allowed villagers to raise concerns about healthcare and welfare assistance. *For residents accustomed to navigating services from a distance, the opportunity to ask questions directly was itself a meaningful form of access.*

During the second month, outreach expanded to Rumah Batu Bebini Baruh, Rumah Kumpang Langgir and Rumah Tinting Lalang. Each visit developed into a community gathering where residents could learn, ask questions and discuss local concerns. Officers from the Fire and Rescue Station Betong demonstrated fire-prevention methods and the correct use of fire extinguishers. Health sessions addressed older-person care and the importance of recognising symptoms that may require medical attention. These practical demonstrations made information easier to understand and apply within longhouse settings.

Representatives from APEL UNIMAS introduced pathways through which adults could pursue further education by recognising previous learning

and experience. Social Welfare Department officers explained available assistance and application procedures in a more accessible manner. Residents and Tuai Rumah raised questions about education, welfare, safety and the difficulties they encountered during application and follow-up processes. These conversations provided agencies with a clearer understanding of rural realities while enabling villagers to receive information directly from the Organizations responsible.

The programme culminated in a One-Stop Exhibition and Grand Closing Ceremony on 1 November 2025 at Kompleks Sukan Lubok Antu. More than 20 agencies, educational institutions and community Organizations gathered in one location. They included UiTM Samarahan, Swinburne University of Technology Sarawak, FAME International College, CENTEX Betong, GIATMARA Lubok Antu, AUG Malaysia, Sarawak Skills, Klinik Kesihatan Lubok Antu, the Social Welfare Department, Public Works Department, Malaysian Communications and Multimedia Commission, Sarawak Forestry Corporation, Sarawak Energy Berhad and several local community Organizations.

The gathering allowed residents to move between information booths, speak directly with agency representatives and compare opportunities without travelling to several different locations. Students learned about further education, scholarships, skills training and career pathways, while adults accessed information concerning welfare, health, infrastructure and community development. *For one day, services usually dispersed across towns and digital platforms were brought together under one roof in Lubok Antu.*

A central feature of the closing programme was a townhall moderated by Ts. Rizzo Mungka. The panel included YB Datuk Malcolm Mussen Lamoh, then State Deputy Minister for International Trade, Industry and Investment and ADUN for Batang Ai, together with Lubok Antu District Officer Akoi anak Ejau. Discussions focused on infrastructure, economic opportunities, future district development and career prospects for local

youth. Participants actively raised questions about issues affecting their communities, transforming the townhall from a one-way briefing into a direct exchange between residents and local leaders.

Motivational and information-sharing sessions conducted by SDGA, Youth Empowerment Society Sarawak, UiTM and AUG Malaysia introduced young people to educational pathways, scholarships, career opportunities and personal-development initiatives. Youth feedback indicated that this exposure gave them greater clarity about options available after school. For students with limited access to career fairs or university outreach, meeting representatives directly helped make further education and professional pathways feel more achievable.

The event also featured 25 participants from the Heritage Handicrafts and Garment Crafting Empowerment initiative, who displayed and sold their handcrafted products. Their participation demonstrated how community outreach could connect social services with livelihood development and cultural preservation. Locally produced crafts gave visitors a visible example of community capabilities while providing entrepreneurs with market exposure. The showcase added an economic dimension to an event already addressing education, welfare, health and infrastructure.

Coordinating a programme of this scale presented several challenges. Some invited agencies cancelled at short notice because of conflicting official commitments. Question-and-answer sessions exceeded their scheduled time because residents were eager to obtain clarification. Attendance at the final exhibition was also higher than expected, requiring additional manpower and logistical adjustments. The organisers responded by revising the programme flow and maximising the time available with participating agencies. These experiences showed that future events should allocate more time for public dialogue and prepare flexible logistical arrangements for larger-than-anticipated crowds.

Approximately 600 people participated across the three-month

programme. Community feedback described the initiative as informative and meaningful, particularly because it improved understanding of available services and opportunities. Residents expressed interest in similar outreach activities being continued, while young people valued information about scholarships, further education and careers. The scale of participation demonstrated that low awareness in rural communities should not be mistaken for a lack of interest; residents engaged actively when information was delivered in an accessible and relevant way.

The initiative contributes directly to SDG 10: Reduced Inequalities by improving rural access to information and services. It supports SDG 3: Good Health and Well-Being through health education, SDG 4: Quality Education through learning and career pathways and SDG 11: Sustainable Cities and Communities through stronger rural-community connections. Cooperation among agencies, universities, NGOs, community leaders and residents also reflects SDG 17: Partnerships for the Goals.

Aram Begempuru demonstrated that bridging the rural information gap requires more than publishing information online. Communities need trusted intermediaries, direct explanations, accessible follow-up procedures and opportunities to speak with service providers. Future programmes could strengthen impact by establishing permanent referral contacts, printed service directories and trained community information coordinators within participating longhouses.

Over three months, Aram Begempuru did more than organise talks and exhibitions. It brought information closer, made rural concerns more visible and reminded approximately 600 participants that distance should not determine their access to healthcare, welfare, education, safety or opportunity.






LUBOK ANTU
ABC POWDER





BUILDING BEATS, BUILDING FUTURES: THE LEARNING MUSIC CENTRE STORY

Organization: NRP Production & Services
Parliament: P.212 Sibu
Project Title: The Learning Music Centre
Funding Allocation: RM30,000
Email: nrpproductionservices@gmail.com

In Sibu, many young people have an interest in music but few have the resources needed to develop it. Instruments can be expensive, appropriate practice spaces are limited and access to experienced instructors is not always available. Without guidance, talent may remain undiscovered and enthusiasm can fade before it develops into a meaningful ability. Recognising this gap, NRP Production & Services, led by Nicholas Bamphield, established The Learning Music Centre (Y25-SP009) with support from an APPGM-SDG microgrant.

The centre was envisioned as more than a place for formal lessons. It aimed to provide young people with a safe and positive environment in which they could express themselves, build confidence and develop a sense of belonging. Regular music activities could also offer a constructive alternative to unhealthy or risky distractions, including illegal racing and gambling. Rather than focusing only on preventing negative behaviour, the project created something meaningful for young people to move towards, creativity, friendship and shared achievement.

The four-month programme targeted young people between the ages of 16 and 29 and was delivered through 14 structured sessions. The first month focused on renovating and preparing the Community Learning

Centre so that it could accommodate classes, rehearsals and instrument practice. Once the work was completed, the previously quiet space began filling with voices, guitar chords and drum rhythms. *The centre's transformation reflected the journey its participants were about to begin, from untapped interest towards skill, confidence and performance.*

Training was organised across three main areas: vocals, guitar and drums. During vocal sessions, participants performed songs from different genres while learning breathing techniques, pitch and vocal control, phrasing and emotional expression. They discovered that singing confidently required both technical practice and the courage to communicate the meaning of a song. As participants became more comfortable, their voices grew stronger and their willingness to perform in front of others increased.

Guitar lessons introduced participants to foundational music concepts, including time signatures, song structures, bar counting and chord progressions. They practised listening to other musicians and maintaining the correct rhythm rather than focusing only on individual playing. Drum training developed basic beats, rhythmic patterns, coordination and timing through exercises involving rudiments and wrist-control techniques. Together, these components helped participants understand that music is not produced by one instrument alone; it depends on every performer listening and responding to the group.

Peer learning became an important part of the experience. Participants practised together, shared techniques and encouraged one another when a song or rhythm proved difficult. Those who understood a section more quickly could support their peers, while rehearsals taught everyone to accept feedback and repeat challenging passages. *Within the centre, music became a shared language through which young people learned cooperation, patience and mutual respect.*

Attendance presented a practical challenge because participants had school, employment and family commitments. Some could not attend

every scheduled session, creating gaps in their progress. The project team responded through flexible scheduling, replacement classes and additional support sessions. These arrangements helped participants catch up without lowering the expectations of the programme. The instructors' willingness to adapt, together with the participants' commitment to continue practising, allowed the group to maintain momentum.

As the final month approached, rehearsals became more focused. Participants had to bring together their individual abilities, conduct sound checks, care for the instruments and prepare to perform as a group. Their work culminated in a music showcase at the University of Technology Sarawak in Sibu. Many participants stepped onto a stage for the first time and performed in front of parents, friends and members of the public.

The showcase represented far more than the completion of 14 sessions. For the participants, it was an opportunity to be heard and recognised. Skills that had been developed quietly during classes were now presented confidently to an audience. The performance also required them to manage nervousness, remember their parts and depend on one another. Every song carried evidence of the hours spent practising, making mistakes and trying again.

By the end of the programme, participants had developed technical abilities in vocals, guitar and drums, together with practical knowledge of instrument care, sound checking and rehearsal coordination. The personal outcomes were equally significant. They demonstrated stronger confidence, discipline, teamwork and willingness to express themselves. The centre showed how creative education can support young people's wider social and emotional development even when music does not become their eventual profession.

The initiative contributes directly to SDG 4: Quality Education by providing accessible creative and technical learning. It supports SDG 3: Good Health and Well-Being by offering a positive space for expression, participation

and social connection. Its emphasis on youth engagement contributes to SDG 11: Sustainable Cities and Communities, while the inclusive learning environment supports SDG 10: Reduced Inequalities.

The project's sustainability lies partly in the continued availability of the centre. Participants can return to practise, create music and develop new performances rather than losing access when the funded programme ends. Opportunities such as Battle of the Bands and other community events could provide goals for continued learning and expose participants to live-performance settings. Future development could also include peer mentoring, with more experienced participants supporting newcomers.

The Learning Music Centre began with a simple belief: young people should have a place where their talents can be discovered and developed. It concluded its first programme with participants standing onstage, sharing music they had once only imagined performing. The final showcase was not the end of their journey. It was the opening note of a future built through creativity, courage and community.






18.10.2025 | 7PM
LECTURE HALL THEATRE A
UNIVERSITY OF TECHNOLOGY SARAWAK
PESERTA TERBAIK (DRUM)
PESERTA TERBAIK (GITAR)


SONOR



INCLUSIVE HARVESTING: GROWING SKILLS, CONFIDENCE AND RESILIENCE WITH SARAWAK'S OKU COMMUNITY

Organization: Sarawak OKU Skills Development Association (SOSDA)
Parliament: P.196 Stampin
Project Title: Semaian Inklusif: Resilient Farming with the OKU Community of Sarawak
Funding Allocation: RM40,000
Email: dunstanlim.sosda@gmail.com

For many persons with disabilities in Sarawak, finding stable employment remains difficult, particularly in rural and urban-fringe communities where accessible opportunities are limited. Although agriculture can provide pathways towards food production and supplementary income, conventional farms are not always designed to accommodate different physical, sensory or learning needs. Inaccessible infrastructure, limited training and insufficient support can prevent persons with disabilities from participating fully. Recognising the need for a more inclusive approach, the Sarawak OKU Skills Development Association introduced Semaian Inklusif: Resilient Farming with the OKU Community of Sarawak.

Led by SOSDA Chairperson Dunstan Lim, the project was designed around a practical idea: establishing a disability-friendly urban farming hub centred on microgreen cultivation. Microgreens require relatively little space, have short growing cycles and can be cultivated indoors using adjustable racks. These characteristics made them suitable for an inclusive training environment in which tasks could be adapted to participants' different abilities. The initiative engaged 10 persons with disabilities, providing them with agricultural knowledge, practical experience and initial

exposure to income-generating activities.

Over four months, participants completed 12 hands-on sessions facilitated by Gabriel Hii, who brought experience in urban agriculture, environmental activities and community development. The programme began with onboarding and individual assessment so that facilitators could understand participants' abilities and support needs. Participants were introduced to food security, the Sustainable Development Goals and the project's vision of developing an indoor farming model that could support livelihoods for persons with disabilities.

Training then progressed to soil and growing-medium preparation, watering and basic plant care. Each participant received a plant-care kit and two pots of microgreens to take home. This allowed them to observe daily growth and practise caring for plants outside formal sessions. The home-growing activity turned participants from occasional trainees into daily caregivers responsible for living crops.

Participants also helped establish the indoor production space by assembling farming racks and becoming familiar with the equipment. Their first crop was Red Amaranth microgreens. They learned how seed density, hygiene, moisture and environmental conditions influenced germination and crop quality. Because microgreens are eaten at a young stage and may be consumed raw, cleanliness during seeding, watering, harvesting and packaging was particularly important.

The project introduced basic smart-farming technology through grow lights connected to timers and a mobile application. For participants unfamiliar with automated systems, controlling the lights through a phone was both exciting and initially challenging. Some required repeated demonstrations to remember the steps or understand how the equipment affected plant development. Facilitators responded with patient, step-by-step instruction, adjusted tasks and peer-learning activities. Participants were allowed to progress according to their abilities while still contributing meaningfully to

the group.

Maintaining motivation across repeated planting cycles presented another challenge. Indoor farming requires routine care even after the excitement of setting up the system has passed. Participants therefore rotated responsibilities, monitored one another's progress and celebrated each completed stage. With continued support, they became more disciplined in watering, monitoring and maintaining the racks. *The programme's success depended not on every participant completing identical tasks, but on each person finding a responsibility they could manage with confidence.*

A major milestone arrived during the second month when participants harvested and sold their first batch of microgreens, generating RM120 in sales. Although modest, the result gave participants tangible evidence that the skills they were developing could create economic value. The first harvest represented weeks of preparation, monitoring and teamwork and strengthened their confidence in their own capabilities.

Motivated by this achievement, participants continued with Green Amaranth, coriander, wheatgrass and Ensabi microgreens. They became increasingly independent in managing planting and harvesting, while also gaining experience in packaging and customer engagement. Produce was sold at the centre, within participants' networks and to cafés and other food businesses. By the fourth month, the project had generated a reported cumulative total of RM590 in microgreen sales.

Some harvested microgreens were also packed and distributed to wards at Sarawak General Hospital, while market outreach included hotels, cafés, schools and local outlets. These connections enabled participants to see that their work could serve both social and commercial purposes. Supplying external customers also introduced the importance of consistent quality, reliable delivery and appropriate food-safety procedures.

The project's impact extended beyond production and income. Participants

developed knowledge of food security, indoor agriculture and simple automation while strengthening coordination, responsibility and teamwork. Facilitators observed greater discipline and willingness to complete tasks across successive planting cycles. Participants also gained pride from producing something valued by customers and the wider community. *Each tray of microgreens became evidence that meaningful participation is possible when the environment is designed to include rather than exclude.*

The initiative contributes directly to SDG 10: Reduced Inequalities by creating accessible skills and livelihood opportunities for persons with disabilities. It supports SDG 2: Zero Hunger through local food production, SDG 4: Quality Education through adaptive practical training and SDG 8: Decent Work and Economic Growth through early market participation. Its efficient indoor system also contributes to SDG 11: Sustainable Cities and Communities and SDG 12: Responsible Consumption and Production.

Semaian Inklusif demonstrates that inclusive agriculture requires more than inviting persons with disabilities to participate in a conventional programme. Equipment, instruction, schedules and responsibilities must be adapted to individual needs. Continued mentoring is equally important because confidence and independence develop through repetition rather than a single training session.

Moving forward, the project can strengthen sustainability by documenting production costs, customer demand and net income, while developing consistent hygiene and packaging procedures. Accessible workstations, visual instructions and alumni mentoring could allow more participants to join future cycles. *Through seeds, technology and patient guidance, the participants cultivated far more than microgreens, they grew confidence, purpose and a visible role in strengthening Sarawak's community food system.*











KICKSTART SEGAMAT: EMPOWERING YOUTH THROUGH FOOTBALL

Organization: Kelab Bola Sepak Sungai Senarut Association (SOSDA)
Parliament: P.140 Segamat
Project Title: Kickstart Segamat: Empowering Youth Through Football
Funding Allocation: RM30,000
Email: kbsssjhr@proton.me

In Segamat, opportunities for children and young people to participate consistently in structured grassroots sports can be limited. Without regular coaching, organised competition and suitable development pathways, sporting potential may remain undiscovered. Young people may also miss valuable opportunities to strengthen discipline, confidence, communication and teamwork. Recognising that football can support development both on and beyond the field, Kickstart Segamat used the sport as a platform for physical activity, non-formal learning and positive youth engagement.

Implemented under project code Y25-SP136, Kickstart Segamat was a Phase 1 community-development initiative in the P.140 Segamat parliamentary constituency. The project was managed by Kelab Bola Sepak Sungai Senarut, with Dhilip Nair A/L R.N. Atchuthan serving as Solution Provider and Project Manager. Implementation began on 1 September 2025 and was scheduled to conclude on 30 December 2025. As of the November reporting period, RM24,000 had been spent, with a further RM16,000 remaining for payment.

The programme involved 50 participants between the ages of seven and 18. Rather than concentrating solely on winning matches, it combined football techniques with tactical understanding, leadership, communication and personal discipline. Participants entered the programme with different abilities and levels of experience, but all were given opportunities to improve through structured coaching. The football field became more than a place to play, it became a learning environment where effort, responsibility and cooperation mattered.

Simulation matches formed one of the programme's central activities. These controlled games allowed participants to apply ball control, passing, finishing and tactical skills in situations resembling actual competition. Trainers could observe how players responded under pressure, communicated with teammates and made decisions when the game changed quickly. The matches also helped participants understand that practising a technique individually is different from applying it effectively within a team.

Position-based training provided more focused development. Players were grouped as forwards, midfielders, defenders and goalkeepers and introduced to responsibilities relevant to their respective roles. Forwards worked on movement and finishing, midfielders practised distribution and control, defenders focused on positioning and protection, and goalkeepers developed handling and decision-making. This approach helped participants understand not only their individual duties but also how every position contributed to the performance of the entire team.

Leadership was presented as a shared responsibility rather than a role reserved for the captain or most technically experienced player. Through workshops in communication, team management and match decision-making, participants learned to provide instructions, encourage teammates and respond calmly during difficult moments. These activities helped them recognise that leadership can be demonstrated through discipline, reliability and support for others.

Training was followed by evaluation sessions and matches in which coaches assessed participants' progress and provided constructive feedback. The November report recorded qualitative improvements in ball control, passing, goal finishing, tactical awareness and teamwork. Participants also reported feeling more motivated after receiving feedback on their strengths and areas for development. These observations do not yet demonstrate long-term change, but they provide encouraging evidence of learning during the implementation period.

The experience of Pradeep, aged 13, illustrates the personal development encouraged through the project. Monitoring records described him as disciplined and consistently present at training. His commitment made him a positive example for other participants and demonstrated that progress was not measured only through sporting ability. By arriving regularly, following instructions and supporting the team, Pradeep showed that reliability itself can be a form of leadership.

Suresh, aged 12, expressed happiness and enthusiasm about participating in the simulation matches and position-based sessions. Other participants also reported that the staged training approach helped them understand their roles more clearly. Leadership activities strengthened their willingness to communicate and contribute within the team. While further monitoring is required to assess whether these behaviours continue, the initial response suggests that participants valued the combination of football and personal development.

Implementation was affected by heavy rain, school schedules and differences in participants' starting abilities. Several sessions had to be shortened or postponed because of weather, while academic and family commitments affected attendance. Coaches responded by rescheduling sessions, providing supplementary or individual training and grouping players according to their development needs. This allowed less-experienced participants to receive additional support without restricting those ready for more advanced activities.

The November report identified several areas for improvement. Additional footballs, cones and training bibs would allow more players to practise simultaneously and reduce waiting time. More individual coaching could support participants who required additional attention, while advanced position-based sessions could challenge experienced players. Regular leadership and communication activities were also recommended so that non-technical development would continue alongside football training.

Following the active phase, the project planned to enter a voluntary monitoring period involving monthly check-ins, mentoring, league participation and individual-progress tracking. Cooperation with Johor Indian FA, schools, local authorities, volunteers and potential funders could provide access to equipment, facilities, coaches and competitive opportunities. However, the implementation and results of these post-project plans should be confirmed through subsequent reporting before being presented as completed outcomes.

The initiative contributes directly to SDG 3: Good Health and Well-Being by encouraging physical activity and positive engagement in sport. It supports SDG 4: Quality Education through non-formal learning in football, leadership, communication and decision-making. Its collaboration with sports associations, schools and community stakeholders also reflects SDG 17: Partnerships for the Goals.

At the November reporting stage, Kickstart Segamat had provided 50 young people with organised coaching, match experience, performance feedback and leadership development. Its longer-term impact will depend on continued attendance, adequate equipment, sustained mentoring and opportunities to participate in competitive football. Nevertheless, the project had already established a structured environment in which young people could learn from both success and mistakes.

For Pradeep, Suresh and their teammates, every pass, match and training session represented more than sporting practice. It was an opportunity to

develop discipline, understand responsibility and discover how individual effort can contribute to a stronger team and a more confident future.









BEYOND THE COURT: BRINGING KABADDI TO A NEW GENERATION IN JOHOR

Organization: Persatuan Peminat Kabaddi Malaysia
Parliament: P.161 Pulai
Project Title: SUKAN KABADDI SUKAN RAKYAT
Funding Allocation: RM30,000
Email: kabaddijohor@yahoo.com

On the field and inside the hall of SMK Dato' Jaafar in Johor Bahru, 40 secondary-school students discovered that Kabaddi demands more than strength and speed. Before they could compete in a match, they had to learn how to warm up safely, prepare the court, communicate with teammates and understand the technical requirements of organised play. Through this structured progression, the sport became a platform for developing cooperation, leadership, discipline and mental resilience.

The Sukan Kabaddi Sukan Rakyat project (Y25-SP075) was introduced in response to the perception that Kabaddi participation in Malaysia was concentrated mainly within the Indian community. The initiative aimed to broaden the sport's reach and make it accessible to young people from different ethnic and socioeconomic backgrounds in the Pulai parliamentary constituency. It also sought to identify promising players and provide teenagers with a constructive activity through which they could improve their physical fitness and confidence.

The Phase 1 initiative was implemented from 2 August to 1 November 2025 by Persatuan Peminat Kabaddi Malaysia, an Organization established in 2020 that conducts Kabaddi workshops, tournaments and youth

activities in Johor and other parts of Malaysia. Persatuan Promosi Matlamat Pembangunan Lestari was identified as the Solution Partner. Project records reported RM30,000 in expenditure, with a further RM18,000 pending payment by APPGM-SDG.

Across three months, participants completed 12 structured sessions at SMK Dato' Jaafar. The programme engaged 40 students from B40 and M40 households and relied on drills, fitness activities, group exercises and actual game situations. Kabaddi required participants to move and make decisions as a unit. Players had to understand when to attack, defend, support or retreat while remaining aware of the positions of their teammates and opponents. *On the Kabaddi court, individual ability mattered, but no participant could succeed without the cooperation of the wider team.*

By October, the programme had progressed to Weeks 9 to 12. Sessions on 4 and 11 October included fitness preparation, court setup, group play and technical-assistant duties. On 25 October, participants were introduced to dietary considerations for athletes, helping them understand the connection between nutrition, preparation and sporting performance. The final session on 1 November placed them in a friendly-match setting where they could apply their learning under conditions closer to formal competition.

Participants were not trained only as players. Some learned to assist with technical duties, court preparation and match Organization. These roles introduced them to the work required behind the scenes of a sporting event and showed that organised competition depends on officials, assistants and coordinators as well as athletes. This wider exposure strengthened their understanding of responsibility and opened different pathways for continued involvement in Kabaddi.

The strongest story emerging from the programme was one of collective progress. Students who began by following demonstrations were participating in matches and assisting with technical responsibilities by the

final sessions. Their feedback indicated interest in establishing their own Kabaddi teams and eventually competing at district, state and national levels. Some also expressed confidence in taking on group-leadership responsibilities. These observations remain qualitative, but they demonstrate that participants were engaging with the sport beyond basic drills.

The project's inclusivity objective was particularly important. By recruiting students from different ethnic and income groups, the programme presented Kabaddi as a shared community sport rather than one belonging exclusively to a single cultural group. At the same time, widening participation did not require erasing the sport's South Asian cultural history. Instead, the initiative created an opportunity for participants to appreciate that heritage while making the game accessible to a broader generation of Malaysian youth.

No major implementation difficulties were recorded in the October report or progress presentation. However, sustainability remained a concern. Without regular coaching, access to suitable facilities and opportunities to compete, participants could lose the skills and motivation developed during the three-month programme. The implementing Organization therefore identified a need for additional financial support to maintain centralised training and expand participation across Johor.

A district-level Kabaddi tournament was planned for 13 December 2025, followed by broader ambitions for school, district, state and national competitions. These events could provide participants with clear goals, help identify promising athletes and create development pathways for newly formed teams. Because the activities were planned after the reporting period, their implementation and outcomes should be confirmed before publication as completed achievements.

The initiative contributes directly to SDG 3: Good Health and Well-Being through physical activity and sports-nutrition awareness. It supports SDG

4: Quality Education through non-formal learning in teamwork, leadership and technical sports management. Its effort to widen participation across ethnic and income groups advances SDG 10: Reduced Inequalities, while collaboration with schools and community Organizations reflects SDG 17: Partnerships for the Goals.

At the reporting stage, the programme's verified achievements included the participation of 40 students, completion of 12 sessions and practical learning in Kabaddi, teamwork, fitness and technical support. Its longer-term impact will depend on whether teams are established, coaching continues and participants gain access to organised competitions. Future monitoring should document attendance, team formation, tournament participation and individual development.

Sukan Kabaddi Sukan Rakyat showed how a traditional sport can bring young people together across social and cultural boundaries. Every raid required courage, every defence required trust and every match demonstrated that success is built collectively. With sustained support, the first 40 participants could become the foundation of a more inclusive Kabaddi movement in Pulai and across Johor.











GROWING PURPOSE: MODERNISING COMMUNITY FARMING THROUGH FERTIGASI CILI SAKATA

Organization: Surau As-Sakinah
Parliament: P.161 Pulai
Project Title: Fertigasi Cili Sakata
Funding Allocation: RM40,000
Email: kebunkomunitisurauassakinahkem@gmail.com

For many years, the land surrounding Surau As-Sakinah in Kampung Kempas Baru, P.161 Pulai, supported small-scale gardening and voluntary farming. Community members cultivated bananas, lemongrass, roselle, okra, herbs and vegetables through conventional methods. In 2025, this familiar space entered a new chapter through the Fertigasi Cili Sakata project, which combined the community's established gardening experience with modern fertigation technology. The initiative demonstrated that a neighbourhood garden could embrace innovation without losing the spirit of gotong-royong that had sustained it.

The project was managed by Samaruddin bin Md Yunos, Secretary of Kebun Komuniti Surau As-Sakinah and the appointed Solution Provider. His long involvement with the garden gave him a clear understanding of its strengths and limitations. Although residents possessed valuable practical knowledge, production depended heavily on manual watering, favourable weather and the availability of volunteers. Fertigation was therefore introduced to create a more systematic approach capable of reducing some of the physical workload and improving control over water and nutrient delivery.

The initiative engaged 11 participants, primarily retirees and community

members between the ages of 50 and 70, including one person with disabilities. Rather than treating age as a limitation, the project built upon participants' experience, discipline and willingness to work collectively. The introduction of pumps, timers, irrigation lines and monitoring tools allowed them to combine traditional gardening knowledge with a more technology-based farming system. *The project showed that innovation is not limited by age when training is practical, patient and connected to existing experience.*

Sakata chilli was selected for cultivation in polybags containing coconut-based growing media, with approximately 1,000 planting units planned. Through the fertigation system, water and dissolved nutrients could be delivered directly to the root zone according to a planned schedule. Pumps, filters, fertiliser tanks, polyethylene pipes, drippers, valves and automated timers were incorporated into the system. This arrangement allowed the planting area to be organised systematically and made irrigation more manageable within the available space.

The first stage focused on transforming the site into a modern production area. Participants cleared and levelled the land, installed weed-control mats, constructed a platform for the tanks and arranged the planting rows. They then helped lay the irrigation pipes and install drippers, valves and timers. These activities became an important part of the learning process because participants could see how each component contributed to the movement of water and nutrients. *The infrastructure was not simply installed for the community; it was built with the community's direct participation.*

Heavy rain and changing weather slowed site preparation, while festive-season supply delays affected the arrival of equipment and materials. Participants responded by reorganising activities, completing construction in stages and maximising volunteer labour during periods of suitable weather. This flexibility allowed implementation to continue without placing excessive pressure on older participants.

Technical learning presented another challenge. Nutrient dosing, irrigation

timing, pH and electrical conductivity readings were unfamiliar to many participants. Repeated demonstrations and group sessions were therefore conducted at the farm. Participants learned how to observe the system, take measurements and relate the readings to plant condition. As their familiarity increased, tasks that initially appeared complex became part of the group's daily routine.

Participants were also introduced to elements of JADAM Natural Farming, including JADAM Sulfur, JADAM Wetting Agent, microbial preparations and natural liquid fertilisers. The training encouraged them to explore lower-cost crop-management options and reduce unnecessary dependence on expensive commercial inputs. However, these preparations still require correct formulation, protective equipment and careful application. "Natural" does not automatically mean risk-free, particularly when handling concentrated sulfur or other active materials.

By the end of the active phase, the fertigation structure had been completed, tested and commissioned. Seedlings were planted in early December, marking the transition from construction to crop production. Participants then assumed responsibility for irrigation schedules, nutrient flow, pest monitoring and plant health. Although yields were projected to increase as the chilli plants matured, verified harvest and income figures were not yet available. These estimates should therefore be presented as future expectations rather than completed outcomes.

The project's early social impact was already visible. Retirees gained a regular activity that kept them physically engaged and connected with neighbours. Experienced gardeners shared practical knowledge, while participants new to fertigation contributed through observation and group work. The surau compound became more active as farming created a shared responsibility and daily purpose.

One participant described feeling newly motivated after retirement because the farm gave him something meaningful to care for each day.

Another expressed pride in learning a technology-based agricultural system that he had never expected to use at his age. These experiences suggest that the project cultivated confidence and belonging alongside the chilli plants. For the participants, each new leaf represented not only crop development but also their own continuing ability to learn and contribute.

The initiative contributes directly to SDG 3: Good Health and Well-Being by encouraging active ageing and community participation. It supports SDG 4: Quality Education through practical learning and SDG 2: Zero Hunger through community food production. More efficient water and nutrient delivery contributes to SDG 12: Responsible Consumption and Production, while the inclusion of older persons and a participant with disabilities supports SDG 10: Reduced Inequalities.

The longer-term success of Fertigasi Cili Sakata will depend on crop survival, actual yield, production costs, market access and the participants' ability to maintain the system. Future reporting should compare projected and actual harvests, record sales and net income and document water, fertiliser and crop-protection inputs. A maintenance fund and clear rotation of responsibilities will also be important once equipment requires replacement or repair.

Fertigasi Cili Sakata demonstrates that modernisation does not require a community to abandon its established values. By combining automated irrigation with cooperation, shared learning and the experience of older gardeners, Surau As-Sakinah created a model in which technology strengthened both agricultural practice and community connection. The farm's greatest early harvest was not yet chilli, it was renewed purpose, confidence and unity.











FUNGI WORKS: GROWING MUSHROOMS, CONFIDENCE AND OPPORTUNITY

Organization: Persatuan Pemulihan Orang Kurang Upaya Negeri Sembilan (Bengkel Seri Sembilan)
Parliament: P.130 Rasah
Project Title: FungiWorks @ Bengkel Seri Sembilan
Funding Allocation: RM40,000
Email: ppocns_bss@yahoo.com

At Bengkel Seri Sembilan in Mambau, Negeri Sembilan, mushroom cultivation became more than a food-security activity. Through FungiWorks @ Bengkel Seri Sembilan, persons with disabilities were given direct roles in crop care, harvesting, packaging and customer engagement. The initiative demonstrated how agriculture can become a platform for dignity and meaningful participation when facilities, instruction and responsibilities are adapted to participants' abilities.

The project was coordinated by Muhammad 'Abduh Hassan bin Shukri, Assistant Manager for Operations at Bengkel OKU Seri Sembilan and the appointed Solution Provider. His experience in landscaping, turf management and inclusive workshop operations helped ensure that activities, schedules and supervision were structured around participant needs. The implementing Organization, Persatuan Pemulihan Orang Kurang Upaya Negeri Sembilan, has supported vocational development since 1977 through envelope production, tailoring, catering, cleaning, agriculture and general workshop services.

The initiative engaged 10 male participants between the ages of 30 and 60, supported by workshop officers and supervisors. Grey and white oyster mushrooms were selected because they can be cultivated indoors, require

relatively little land and have short production cycles under suitable conditions. Tasks could also be divided and adapted, making it possible for participants with different physical abilities to contribute to production.

Training began with orientation, confidence-building activities and an introduction to food security, sustainability and mushroom farming. Participants visited an established mushroom enterprise in Labu, Negeri Sembilan, where they observed commercial production, environmental controls, hygiene and contamination-prevention procedures. The visit helped them understand how a mushroom facility operates beyond the classroom. *For participants entering the field for the first time, seeing a functioning enterprise made the possibilities feel more real.*

Before cultivation could begin, the selected building required substantial upgrading. Repairs were carried out in stages, including electrical rewiring, cleaning and environmental preparation. Shade netting was installed to reduce direct sunlight and support a cooler growing environment. The project also encountered administrative delays because fund releases required several authorised signatories. Improved communication between management and stakeholders helped keep procurement and construction moving, highlighting the importance of sound governance in community enterprises.

Nine custom racks were installed, each designed to accommodate approximately 1,300 mushroom blocks. This created a theoretical maximum capacity of around 11,700 blocks, although actual stocking and safe operating capacity should be confirmed according to spacing, ventilation and environmental-control requirements. Participants helped carry, assemble and arrange the racks, strengthening their sense of ownership. Blocks were organised according to participant names, making responsibilities and monitoring clearer.

Hands-on cultivation became the heart of the programme. Participants learned to clean block openings, minimise contamination, regulate

humidity and monitor temperature. Rotating groups were responsible for scheduled misting or watering and daily inspections. These routines helped develop discipline and showed how small lapses in hygiene or environmental control could affect an entire crop. *The mushrooms required consistent care, and that consistency gradually became a source of responsibility and pride.*

When the first flush emerged according to schedule, participants could see the results of their work. They learned to harvest clusters carefully without unnecessarily damaging the block or remaining mycelium and to prepare the blocks for subsequent flushes. Post-harvest training included cleaning, weighing, grading and packaging. Each stage helped participants understand that quality must be maintained from the growing house until the product reaches the customer.

Entrepreneurship training introduced customer communication, recordkeeping, product presentation, booth management and basic sales techniques. Mushrooms were promoted to government offices, schools and nearby communities, giving participants exposure to actual customer interaction. Electronic scales improved weight consistency, while packaging equipment supported a more professional presentation. Any vacuum-packaging method for fresh mushrooms should be validated carefully, as product safety and shelf life depend on packaging type, storage temperature and an appropriate cold chain.

The project's most meaningful achievement was visible in the participants. Individuals who initially hesitated when handling tools or following unfamiliar procedures became more confident and independent. Staff observed stronger discipline, enthusiasm and willingness to complete responsibilities. Some participants expressed pride in being trusted with real production work, while others valued learning a skill that could potentially support future income.

The programme did not ask participants merely to observe. It entrusted them

with living crops, equipment and responsibilities that directly affected production.

The initiative contributes directly to SDG 10: Reduced Inequalities by creating accessible vocational opportunities for persons with disabilities. It supports SDG 4: Quality Education through practical training, SDG 8: Decent Work and Economic Growth through enterprise exposure and SDG 2: Zero Hunger through local food production. Its institutional and community partnerships also reflect SDG 17: Partnerships for the Goals.

At this stage, verified harvest volumes, sales and income figures were not reported. The strongest documented outcomes are the upgraded mushroom house, installation of nine racks, completion of practical training and increased participant confidence. Future monitoring should record block numbers, contamination rates, harvest volumes, production costs, sales and participant earnings to evaluate operational and financial sustainability.

FungiWorks demonstrates that inclusion requires more than placing persons with disabilities inside an agricultural project. Facilities must be accessible, tasks adaptable, guidance continuous and participants trusted with meaningful responsibilities. With proper food-safety systems, reliable markets and continued mentoring, the project can progress from supported training into a sustainable social enterprise.

At Bengkel Seri Sembilan, the first mushrooms represented more than a successful crop. They reflected the growth of confidence, discipline and possibility among participants who had been given the opportunity to contribute, learn and be recognised for their abilities.




vision







THEMATIC: ECONOMIC

BEYOND BEAUTY: EMPOWERING WOMEN THROUGH MAKEUP AND ENTERPRISE

Organization: TIVARAA MAKE UP ARTISTRY
Parliament: P.116 Wangsa Maju
Project Title: SPARKLE AND SHINE WITH UNIQUE MAKE UP
Funding Allocation: RM30,000
Email: tivaaraaskillempire@gmail.com

For women from B40 households in Wangsa Maju, the beauty and personal-care industry offers a flexible pathway to freelance work, home-based businesses and supplementary household income. However, transforming an interest in makeup into a viable livelihood requires structured technical training, practical experience, professional guidance and confidence. The Sparkle and Shine with Unique Makeup project was developed to address these needs by combining beauty skills, personal development and entrepreneurship exposure.

Implemented from September to November 2025, project Y25-SP104 received an APPGM-SDG allocation of RM30,000. The programme was conducted at Tivaaraa Skill Empire in Wangsa Maju by TIVARAA Make Up Artistry. Ms Aruna Kalidass served as the project administrator, while training was led by Ms Mithieraa S. Ganesen, a professional makeup and special-effects artist and HRD Corp Accredited Trainer.

The three-month initiative engaged 10 women and provided practical, industry-relevant training designed to improve their technical abilities, confidence and readiness to pursue income-generating opportunities. Participants learned through demonstrations, hands-on practice and individual guidance. They applied makeup techniques on themselves,

models and training partners before completing practical assessments.

Across 12 structured activities and training sessions, participants were introduced to digital marketing for beauty businesses and saree pre-pleating. They then progressed through natural, corporate, glamorous, bridal and beauty makeup techniques. Self-grooming sessions strengthened their personal presentation, while photographic makeup taught them how to adjust products, complexion techniques and facial definition for cameras and different lighting conditions.

Face painting added a creative dimension to the programme by encouraging participants to explore colour, character development and visual storytelling. During the final practical examination, participants prepared models based on their creative concepts and participated in an indoor photoshoot. They were required to produce camera-ready looks using durable products, defined features and appropriate finishing techniques.

Participants also completed a Halloween-inspired skeleton face-painting assignment, allowing them to demonstrate their creativity and technical control. The programme concluded with revision, updated learning notes, a final examination and a discussion on post-project monitoring. A graduation ceremony was held on 30 November 2025 to recognise the participants' achievements.

All 10 participants successfully completed the programme. Their practical assignments contributed to the development of personal portfolios that could be used to demonstrate their abilities to potential clients. Project records indicated improvements in makeup artistry, face painting, photographic presentation, grooming, creativity and attention to detail. Participants were also observed to perform practical tasks with greater confidence and professional awareness.

Participant feedback highlighted the importance of face-to-face learning,

personalised guidance and repeated practice. Participants reported improvements in their makeup application, technical knowledge and confidence. They also recognised consistency, discipline and hard work as essential qualities for succeeding in the beauty industry.

The programme created opportunities for participants to apply their skills beyond the classroom. Members of Batch 4 provided mehendi services during a Deepavali open house organised by an elected representative in Petaling Jaya. This experience allowed them to engage with the community and apply their creative skills in a real-world setting.

The wider TIVARAA programme also introduced APPGM-SDG participants from Batches 2, 3 and 4 to a potential pathway towards obtaining the Sijil Kemahiran Malaysia. This provides an opportunity for participants who wish to continue their training and pursue formal skills certification.

The project faced several limitations. By the end of the three-month implementation period, most participants had not yet registered businesses or established formal operating procedures. Limited resources, Organizational-management experience and implementation time were identified as key constraints. Therefore, the project's strongest verified outcomes were improved technical capabilities, confidence, professional exposure and readiness to generate income rather than confirmed business growth or sustained increases in earnings.

Continued support will be important in helping participants convert their skills into economic opportunities. Proposed follow-up activities include advanced training, mentorship, progress monitoring and stronger connections with local agencies, sponsors and microenterprise support programmes. An online or WhatsApp support group could also enable participants to continue learning, exchange information and share employment or business opportunities.

Participants who demonstrate strong performance may eventually support

future programmes as junior trainers or assistants. This would provide them with additional professional experience while strengthening peer learning and creating a cycle of community-based skills development.

The project contributes directly to SDG 4: Quality Education by providing accessible and practical vocational training. It supports SDG 8: Decent Work and Economic Growth by preparing participants for freelance work, service-based employment and entrepreneurship. It also advances SDG 5: Gender Equality by strengthening women's confidence, skills and economic participation, while collaboration among trainers, participants and supporting agencies contributes to SDG 17: Partnerships for the Goals.

Beyond Beauty demonstrates how structured, hands-on training can transform an interest in makeup into a potential pathway for personal and economic advancement. Although further monitoring is required to determine whether participants generate sustained income, the programme established a valuable foundation through practical skills, stronger confidence, professional exposure and continued access to guidance and support.




SPARKLE AND SHINE
WITH UNIQUE MAKEUP
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FROM CREATIVITY TO COMMERCE: PRESSING NEW OPPORTUNITIES FOR WOMEN

Organization: NURUL FARDUS VENTURE
Parliament: P.112 Kuala Langat
Project Title: PRESS & IMPRESS PROJECT
Funding Allocation: RM30,000
Email: nurulfardus@gmail.com

For many women and homemakers in Telok Panglima Garang, creativity has always been part of everyday life. Yet transforming that creativity into a reliable source of income can be challenging. Producing an attractive item is only the beginning. To build a successful home-based enterprise, women also need to understand digital design, production techniques, product costing, marketing, customer communication and quality control.

The Press & Impress Project was introduced to help bridge this gap. Implemented from September to November 2025 under the APPGM-SDG income-generation initiative, the project received a total allocation of RM30,000. It was led by Nurul Fardus Venture, with Ms Nurul Hidayah binti Tuhid serving as the Project Manager and Solution Provider.

Established in 2021, Nurul Fardus Venture specialises in digital and creative craft education. Through the project, the Organization brought together 10 women from youth, B40 and homemaker groups and introduced them to the creative and commercial potential of sublimation printing and personalised corporate gifts.

For some participants, attending training was not always easy because they also had to care for their children. Recognising this challenge, the Solution

Provider created a safe and family-friendly learning environment where participants could bring their children. This simple but meaningful arrangement allowed the women to participate more comfortably and focus on developing their skills.

Throughout the programme, participants learned how to create digital designs and transfer them onto personalised products using sublimation printing and heat-press machines. They explored the production of mugs, coasters, lanyards, identification cards and other corporate gift items.

The training went beyond technical production. Participants learned how to calculate prices, present their products, communicate with customers, negotiate orders and promote their services. They also discovered the importance of maintaining consistent product quality and completing orders within agreed timelines.

The learning journey consisted of 12 planned modules, followed by an additional thirteenth module introduced in response to actual customer demand. Each activity brought participants closer to understanding how a creative idea could be transformed into a marketable product.

All 10 participants completed the programme, with an overall attendance rate of 89%. Seven participants achieved full attendance, while the remaining absences were mainly due to health-related reasons. Their commitment reflected a strong determination to acquire new skills and explore better economic opportunities.

Among the participants was 35-year-old Mai Nur Habibah. After completing Modules 9 and 10, Mai received an opportunity that allowed her to apply what she had learned. She secured an order to produce 30 personalised mugs and coasters for the Hari Pendaftaran Taska Glow & Grow 2026.

The order required more than pressing a design onto a product. Mai had to understand the customer's requirements, create a suitable design,

customise each item and manage the production process carefully. Each set was valued at RM35, giving the order an estimated gross value of RM1,050.

For Mai, this was more than a classroom assignment. It was her first opportunity to move from guided training to fulfilling a real customer order. Although the RM1,050 represented gross sales rather than profit, the experience showed her that the skills she had acquired could have genuine market value. The completed products also became part of a portfolio that she could present to future customers.

Mai was not the only participant who began turning her creativity into commercial opportunities. Norashekeen received an order for 60 personalised wrist lanyards, valued at RM8 each, producing an estimated gross value of RM480. Syuhada Wahidah secured an order for 40 corporate lanyards and identification cards, valued at RM15 each, with an estimated gross value of RM600.

Together, the three participants secured orders with a combined estimated gross value of RM2,130. These early orders did not yet represent sustained income or overall project profit. Nevertheless, they provided encouraging evidence that participants could respond to actual customer demand and apply their newly acquired skills beyond the training environment.

As their confidence grew, participants also began to understand what it meant to run a small creative enterprise. They learned that building customer trust required consistency, commitment and attention to detail. Standard operating procedures for production, marketing, workflow management and financial planning helped them recognise the importance of delivering quality products on time.

The project also created a supportive network among the participants. Instead of viewing one another only as individuals pursuing separate businesses, they began exploring ways to collaborate. By combining their

skills, sharing equipment and supporting one another, they could potentially accept larger orders that might be difficult to fulfil independently.

The journey was not without challenges. The sublimation printer was sensitive to frequent movement, and the temporary training venue made it difficult to demonstrate the complete printing process directly. Rather than allowing this limitation to interrupt the programme, the Solution Provider recorded the process in advance and presented it during the relevant training session.

The lack of a permanent creative centre created another challenge. Without a dedicated space, participants had limited opportunities to meet, practise and work together after the programme. As an interim solution, the Solution Provider proposed organising smaller meetings at restaurants or suitable community spaces where participants could exchange ideas, discuss business challenges and maintain their connections.

The end of the three-month programme did not mark the end of their journey. Nurul Fardus Venture committed to providing six months of voluntary monitoring and maintaining its collaboration with the participants. Future plans include advanced training in marketing and website development, joint commercial projects and opportunities for selected participants to operate exhibition booths.

The longer-term vision is to establish a permanent creative centre where participants can continue learning, access equipment and collaborate on customer orders. Expanding their skills into areas such as laser engraving and other corporate gift products could also open new markets and strengthen their income-generating potential.

The project contributes to SDG 4: Quality Education by providing accessible, practical skills training and to SDG 8: Decent Work and Economic Growth by preparing participants for self-employment and

home-based production. Its focus on women's participation supports SDG 5: Gender Equality, while collaboration among participants, businesses, agencies and community Organizations reflects SDG 17: Partnerships for the Goals.

The Press & Impress Project demonstrates how community-based training can turn creativity into opportunity. For Mai, Norashekeen and Syuhada, their first customer orders represented encouraging steps towards greater confidence and economic independence. With continued mentorship, access to equipment and stronger market connections, these first impressions could become the foundation for lasting enterprises and brighter futures.











RECIPES OF RESILIENCE: TURNING TRADITION INTO OPPORTUNITY

Organization: Koperasi Keusahawanan Kaum India Daerah Sabak Bernam Berhad
Parliament: P.092 Sabak Bernam
Project Title: Pembuatan Biskut Tradisional Masyarakat India
Funding Allocation: RM30,000
Email: srikelapa1961@gmail.com

In Sabak Bernam, traditional Indian biscuits are more than festive delicacies. Their recipes carry memories, cultural identity and knowledge passed from one generation to another. For members of the local Indian B40 community, these familiar recipes also offered something more, the possibility of creating a better livelihood.

Many community members already knew how to prepare traditional biscuits at home. However, producing food for family celebrations was very different from running a business. To earn a consistent income, they needed to understand product quality, hygiene, packaging, pricing, marketing and customer expectations. They also needed the confidence to present their traditional products to a wider market.

The *Pembuatan Biskut Tradisional Masyarakat India* project was introduced to help them take this important step. Supported by an APPGM-SDG allocation of RM30,000, the 12-week programme was implemented by the Koperasi Keusahawanan Kaum India Daerah Sabak Bernam Berhad, with Shritharan A/L Subramanian serving as the Solution Provider.

Fifteen participants began this journey together. They were between 20

and 40 years old and came from B40 households across Sabak Bernam. The group consisted of 10 women and five men, each with an interest in learning food-production skills and exploring new ways to earn an income. Their journey began not in the kitchen but with the stories behind the food. Participants learned about the history and cultural significance of traditional Indian biscuits. They were encouraged to see each recipe not only as a method of preparing food but also as an important part of their community's heritage.

With this appreciation in mind, they began researching recipes and preparing ingredients. Under the guidance of qualified trainers, the participants learned how to measure ingredients accurately, follow standardised recipes and maintain proper hygiene throughout the production process. The kitchen soon became an active learning space. Trainers demonstrated each technique before the participants attempted it themselves. Some products did not turn out perfectly during the first attempt, but repeated practice helped the participants identify their mistakes and improve their methods.

Gradually, they became more confident. They learned how small differences in measurements, preparation time and cooking temperature could affect a biscuit's taste, texture and appearance. They also discovered that customers expected every batch to maintain the same quality.

The participants were no longer preparing biscuits only as a familiar household activity. They were learning to produce food as entrepreneurs.

As their technical skills developed, the training moved beyond the kitchen. Participants learned how to calculate production costs, determine appropriate selling prices and prepare basic business plans. They were introduced to financial literacy, attractive packaging, product promotion and customer communication. Digital marketing opened another door. Through social media and e-commerce platforms, participants learned that their products could reach customers beyond their families and

neighbourhoods. They began to understand how photographs, product descriptions and online communication could influence customer interest. During the sales stage, customer satisfaction surveys gave participants an opportunity to hear directly from the people purchasing their products. Feedback on taste, appearance, packaging and presentation helped them recognise what they were doing well and what could be improved. For many participants, this was an important moment in their learning journey. They were no longer relying only on their own opinions. They were beginning to think from the customer's perspective and make decisions based on market feedback.

By the end of the programme, all 15 participants had completed basic business plans. At least 70% had started or expanded small-scale businesses connected to the skills they had acquired. Some also took steps towards registering their businesses and creating e-commerce or business-focused social media accounts.

What began with a traditional family recipe was gradually developing into a structured business opportunity.

The programme also contributed to improvements in the participants' average monthly income. Earnings differed depending on individual production capacity, customer demand and market participation, but the overall progress demonstrated the income-generating potential of traditional food products. The transformation was not only financial. Participants became more confident in managing production, calculating costs, presenting their products and communicating with customers. They began to recognise that their existing cultural knowledge had economic value when combined with appropriate training and business support.

The journey was not without challenges. Maintaining participation throughout a 12-week programme required commitment from both the participants and the project team. Clear responsibilities, regular monitoring and continuous engagement helped the group remain focused. Another

challenge was the seasonal nature of demand. Traditional biscuits are often most popular during festivals and community celebrations. To build more consistent businesses, participants needed to reach wider markets and encourage customers to purchase their products throughout the year.

The cooperative therefore continued mentoring and monitoring the participants for three months after the active phase. This support helped them address emerging challenges related to production, marketing and business management. The participants were also encouraged to work collectively. Those who earned profits could contribute a small amount to a cooperative fund to support future training, purchase equipment and create opportunities for new participants.

Plans were developed for regular knowledge-sharing sessions, collective digital promotion and participation in local bazaars and entrepreneurship exhibitions. A shared product brand was also proposed to strengthen market visibility and create a stronger sense of community ownership. The cooperative explored additional financial support through Organizations such as TEKUN Nasional and Amanah Ikhtiar Malaysia. With continued mentoring, equipment and access to financing, participants could gradually increase their production and reach more customers.

The project supports SDG 1: No Poverty by creating pathways for B40 households to generate income through home-based enterprises. It advances SDG 8: Decent Work and Economic Growth by developing entrepreneurship and self-employment skills. It also contributes to SDG 10: Reduced Inequalities by expanding economic opportunities within the Indian B40 community.

Ultimately, the story of the project is not only about making biscuits. It is about helping people recognise the value of skills they already possess and giving them the knowledge to build upon those strengths. For the 15 participants, every recipe represented a connection to the past, while every packaged product carried the possibility of a more secure future. By

bringing together cultural heritage, practical training and entrepreneurship, the project transformed traditional biscuits into a meaningful recipe for confidence, income and community resilience.











HOOKING A BETTER FUTURE: AQUACULTURE AND EMPOWERMENT IN PASIR PUTEH

Organization: Pertubuhan Cakna Gaal Pasir Puteh
Parliament: P.028 Pasir Puteh
Project Title: PROJEK PENTERNAKAN IKAN PATIN DALAM SANGKAR
Funding Allocation: RM30,000
Email: nasirhussin5535@gmail.com

In Pasir Puteh, Kelantan, the waters of Sungai Temila now carry more than the natural flow of a rural river. For a group of local young people, the river represents the possibility of earning a stable income without leaving their community. Pasir Puteh has long faced a socioeconomic challenge familiar to many rural districts: limited employment opportunities for young people from B40 households. Some depend on unstable informal work, while others migrate to urban areas in search of better prospects. This movement can separate young people from their families and leave rural communities with fewer individuals capable of contributing to their local economies. Recognising the potential of the river and the determination of local youth, Pertubuhan Cakna Gaal Pasir Puteh, led by Chairman Nasir bin Husin, introduced an initiative that connected community resources with practical economic opportunities.

The Projek Penternakan Ikan Patin Dalam Sangkar, or Caged Patin Fish Farming Project, was implemented with an initial APPGM-SDG allocation of RM30,000. The initiative selected 10 B40 male participants between the ages of 18 and 45 for an intensive aquaculture-training programme. Rather than depending mainly on classroom instruction, the participants learned directly beside and within the river environment. They were trained in site

preparation, fish-cage construction, fingerling management, water-quality monitoring, fish-health assessment, feeding practices and local marketing. The practical approach enabled them to understand the realities of aquaculture while building the confidence required to manage a community-based fish farm.

From the beginning, participants were involved in the project's planning and decision-making. An important discussion centred on the type of cages that should be installed in Sungai Temila. Traditional wooden cages would have been easier and less expensive to construct, but participants were concerned that continuous exposure to river water and changing weather conditions would cause the material to deteriorate quickly. After considering the available options, the group chose to construct iron cages. Although this decision increased material costs and required them to acquire more demanding technical skills, it offered greater durability and better long-term value. The decision reflected an important shift: the participants were not simply following instructions but were beginning to think like aquaculture operators responsible for the future of their enterprise.

Constructing the cages required persistence and teamwork. Working through rain, mud and changing river conditions, participants learned basic welding, cage assembly and specialised net-tying techniques. They also learned how to secure the cages, release fingerlings and monitor the fish after stocking. Nasir bin Husin observed that the participants valued being included in the decision-making process and were confident that the iron structures would provide greater long-term resilience. Their full attendance throughout the project reflected their commitment to completing the work and developing the necessary aquaculture skills.

"The participants were extremely satisfied because their views were taken into account regarding the use of iron. Even though the costs increased, they were confident that this would ensure long-term durability. Their full attendance demonstrated their strong commitment to the project.", Nasir bin Husin,

Chairman of Pertubuhan Cakna Gaal Pasir Puteh

With a final recorded expenditure of RM23,550, the team successfully constructed and installed five durable iron cages in Sungai Temila. Thousands of patin fingerlings were released and cared for by the participants, who took responsibility for feeding, monitoring and maintaining the cages. They also learned how to recognise early signs of fish disease and identify threats from river predators, including monitor lizards and water birds. These practical lessons helped them understand that successful fish farming depends on constant observation, preventive management and quick responses to changing conditions.

The project also created valuable connections with the Department of Fisheries, the APPGM-SDG secretariat and potential local buyers. These networks gave participants access to technical guidance, institutional support and possible marketing channels for future harvests. Understanding the market was particularly important because producing healthy fish would not be sufficient without reliable buyers, suitable pricing and proper harvest planning. The participants therefore began to develop a broader understanding of aquaculture as a complete enterprise involving production, financial management, marketing, and customer relationships.

The journey was not without difficulties. Rising material prices forced the team to reconsider its original construction targets and prioritise the quality and durability of the cages over quantity. Later, the monsoon season brought rising water levels, strong currents and unpredictable weather, affecting both the project timeline and the safety of river activities. The participants adapted by reorganising their work schedules around periods of clearer weather, making more efficient use of the available materials and installing additional safety ropes to secure the cages. *The river became both their classroom and their test, teaching them that resilience in aquaculture requires the ability to prepare, adapt and respond.*

The project contributes directly to SDG 1: No Poverty by creating a

potential source of income for participants from B40 households. It supports SDG 8: Decent Work and Economic Growth by providing practical aquaculture and entrepreneurship skills, while contributing to SDG 2: Zero Hunger through local fish production. The participants' growing awareness of water quality, fish health and responsible river management also supports SDG 6: Clean Water and Sanitation and SDG 14: Life Below Water. Partnerships with government agencies, technical stakeholders and buyers further reflect SDG 17: Partnerships for the Goals.

The participants now plan to continue managing the cages independently and use proceeds from future harvests as revolving capital. Standard Operating Procedures have been developed to guide daily feeding, cage maintenance, fish-health monitoring and other operational responsibilities. The group also intends to explore microfinancing, expand the number of cages and establish a formal community fish-breeder group. These plans could create a stronger Organizational foundation while enabling participants to share responsibilities, manage resources collectively and negotiate more effectively with buyers.

Today, the young participants are no longer looking only beyond Pasir Puteh for economic opportunities. They are beginning to recognise the value of the resources, knowledge and partnerships available within their own community. Five iron cages now stand in Sungai Temila as physical evidence of their commitment, but the project's deeper achievement can be seen in their changing outlook, from individuals with limited formal skills to a group preparing to manage a community aquaculture enterprise. *Through patience, teamwork and the steady flow of the river, they are learning to anchor their livelihoods in the place they call home.*











QUACKING THE CODE TO PROSPERITY: THE ECOQUACK REVOLUTION IN TANAH MERAH

Organization: Pertubuhan Kebajikan Anak Tanah Merah
Parliament: P.027 Tanah Merah
Project Title: Inisiatif Penternakan Itik Penelur Komuniti Madani: Meningkatkan Pendapatan dan Keselamatan Makanan di Tanah Merah
Funding Allocation: RM40,000
Email: yusmazidamy@gmail.com

In the rural heartland of Tanah Merah, Kelantan, many labourers and small-scale farmers work hard to support their families but continue to face difficulties in securing stable incomes. Although the area has strong agricultural potential, traditional farmers often lack the technical knowledge, infrastructure and market access required to develop their activities into sustainable enterprises. Rising commercial-feed prices, threats from wild predators and limited knowledge of digital marketing make it even more difficult for small producers to expand. Recognising these challenges, Pertubuhan Kebajikan Anak Tanah Merah introduced a community-based duck-farming initiative designed to strengthen food security and create a new source of livelihood for local families.

The Inisiatif Penternakan Itik Penelur Komuniti Madani was implemented from August to December 2025. The programme brought together 11 participants, including self-employed individuals and traditional farmers, and guided them through the full process of managing an egg-laying duck enterprise. Instead of simply providing livestock, the project invested in practical knowledge and shared responsibility. Participants learned how to

construct suitable coops, manage feeding systems, maintain cleanliness, monitor duck health and apply biosecurity measures. They also explored circular farming practices, including converting duck manure into organic fertiliser and using suitable food waste as supplementary feed to reduce dependence on costly commercial products.

The participants worked collectively to construct the duck coops and prepare the farming site. Every stage required cooperation, from selecting materials and strengthening the structures to installing feeding and drinking systems. The process helped them understand that a successful livestock enterprise begins before the animals arrive. A well-designed coop must provide ventilation, cleanliness and protection from changing weather and predators. By building the facilities together, the participants also developed a stronger sense of ownership over the project. *The coops were not simply structures for housing ducks; they represented the foundation of a community enterprise built through shared effort.*

In November 2025, the community welcomed its first major delivery of 530 healthy egg-laying ducks. The arrival marked an important turning point, as the knowledge gained during training now had to be applied consistently. Participants organised daily responsibilities, monitored the ducks and ensured that feed, water and living conditions were properly managed. Among them was Siti Zanaida binti Mustafa, whose involvement challenged the perception that livestock farming is primarily a male occupation. For her, the project provided an opportunity to develop practical abilities and pursue a new economic ambition.

"My hope is to become a successful female duck farmer.", Siti Zanaida binti Mustafa, project participant

The participants' shared work also strengthened their relationships. Constructing the coops, attending training and caring for hundreds of ducks required them to communicate, solve problems and support one another. One participant reflected that the initiative created benefits

beyond income generation.

"This project helps us economically, but it also strengthens our bonds because we built the coops and learned together."

Just 14 days after the ducks were settled into their new coops, the participants discovered their first egg on the morning of 20 November 2025. Although it was only a single egg, its significance was much greater. It showed that their preparation and daily care were beginning to produce results. News of the first egg quickly spread through the group chat, generating excitement and strengthening the participants' motivation. *That first egg was more than an agricultural output; it was the community's earliest sign that its new enterprise could succeed.*

Building on this momentum, the group established a community-owned brand called EcoQuack. The participants were introduced to digital marketing through TikTok and WhatsApp, learning how these platforms could help them promote products, communicate with customers and develop a recognisable local identity. Rather than depending only on the sale of raw duck eggs, the group explored value-added products such as salted eggs and masak lemak telur itik. Duck manure and other farming by-products could also be processed into organic fertiliser, creating an additional product while reducing waste. As production grows, the community is targeting a collective monthly income of RM12,000. This figure remains a future income projection rather than confirmed earnings, but it gives the participants a measurable commercial goal.

The programme also changed how participants understood farming and sustainability. They began to see livestock production as part of a broader system in which waste could become a resource, local food production could strengthen community resilience and digital tools could connect rural producers with larger markets. Their ambitions grew alongside their knowledge.

"My hope is that one day we can become the biggest duck producer in Tanah Merah."

"I now understand the connection between farming, sustainability and the Sustainable Development Goals."

The journey was not without difficulties. Commercial duck feed represented a significant daily expense and threatened the long-term affordability of the operation. Participants applied their training by incorporating suitable food waste into the feeding system, helping to lower costs while reducing the amount of organic waste discarded. Monsoon rains also affected egg production, while predators presented a continuous threat to the flock. The participants responded by strengthening the coops, following biosecurity procedures and monitoring the ducks more closely. These challenges taught them that livestock farming requires continuous attention, financial planning and the ability to respond quickly to changing conditions.

The initiative contributes directly to SDG 2: Zero Hunger by strengthening local egg production and community food security. It supports SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth by creating livelihood and entrepreneurship opportunities for rural participants. The use of food waste as supplementary feed and duck manure as organic fertiliser advances SDG 12: Responsible Consumption and Production. Siti Zanaida's participation and ambition to succeed in livestock farming also reflect the principles of SDG 5: Gender Equality, while collective management and community ownership strengthen local cooperation.

Today, EcoQuack represents more than a duck-farming project. It is a growing rural enterprise built upon technical knowledge, shared responsibility and the determination of 11 participants. The group plans to increase the number of ducks, upgrade its machinery, develop more value-added products and strengthen its presence on digital platforms. These plans will require continued monitoring, sound financial management and

reliable market connections, but the participants have already taken their first important steps. *From one carefully protected flock and a single celebrated egg, the community is learning how to hatch a more prosperous and sustainable future in Tanah Merah.*











HATCHING NEW BEGINNINGS: THE ORGANIC POULTRY REVOLUTION IN KUANTAN

Organization: Bina Modern Enterprise
Parliament: P.083 Kuantan
Project Title: PROJEK AYAM GAJAH ORGANIK & PEMBUATAN MAKANAN ORGANIK (AZOLLA)
Funding Allocation: RM40,000
Email: ammar1194@gmail.com

In the coastal communities of Kampung Sepat and Kampung Soi in Kuantan, Pahang, earning a stable income can be difficult, particularly for young people attempting to recover from business losses or unstable employment. Economic changes have forced some local enterprises to close, leaving former business owners and workers searching for new ways to support themselves and their families. Although backyard chicken rearing is common in these communities, it has often been treated as a small household activity rather than a structured enterprise. Without proper coops, feeding schedules, health-management practices and financial records, farmers face slow livestock growth, high mortality rates and limited returns. Recognising the need for a more reliable livelihood pathway, Bina Moden Enterprise introduced an initiative that transformed traditional poultry rearing into a systematic and environmentally responsible agribusiness opportunity.

Led by Project Manager Ammar Fikri bin Abd Razak, the Projek Ayam Gajah Organik dan Makanan Organik (Azolla) was implemented from September until the end of 2025. The project engaged 10 local men in an intensive combination of technical training and practical farm development. Instead

of relying mainly on classroom instruction, participants cleared land, prepared farming sites and worked alongside professional builders to construct five fully equipped poultry coops across several locations. They were introduced to veterinary and biosecurity procedures, feeding schedules, digital financial management, marketing and the cultivation of azolla as a more affordable supplementary feed. The training helped participants understand that professional poultry farming requires careful planning and daily consistency from the moment a chick arrives until the livestock is ready for sale.

The journey of 26-year-old Ahmad Aizat reflects the second chance created through the project. Ahmad previously owned Cafe Smokop, but difficult economic circumstances forced him to close the business and begin selling food by the roadside. Although the experience affected his income, it did not diminish his entrepreneurial ambition. By joining the poultry project, Ahmad found an opportunity to redirect the knowledge gained from running a food business into agriculture. He participated in the construction and management of his coop and began learning how to plan production, monitor expenses and prepare for future sales. *For Ahmad, the coop represented more than a new business activity; it was an opportunity to rebuild his livelihood from the ground up.*

Another participant, 22-year-old Muiz bin Abdul Muin, balanced the project with his responsibilities as a manager at Lucid Coffee. He woke early to care for the chickens and manage the coop before beginning his afternoon shift at the café. His routine demonstrated the commitment required to develop a new enterprise while maintaining existing employment. Meanwhile, 35-year-old farmer Mohd Irfan bin Mahzan contributed valuable practical experience during the coop-construction process. He worked closely with the builders whenever they arrived, learning how the structure could be adapted to local farming conditions. Each man entered the programme with a different background, but they shared a determination to create a more stable future through agriculture.

The project successfully established five poultry coops, with each receiving an initial batch of 100 chicks. Altogether, the new facilities housed 500 Ayam Gajah chicks. Participants followed Standard Operating Procedures covering scheduled feeding, livestock-health monitoring, cleaning and financial recordkeeping. These systems provided a foundation for more consistent production and enabled the farmers to identify problems more quickly. The project also established connections with Kolej Vokasional MARA, universities including Universiti Kebangsaan Malaysia and potential bulk poultry buyers. These networks created opportunities for additional technical advice, skills development and future market access, although continued engagement will be required to convert the connections into sustained commercial relationships.

Participants were also introduced to the cultivation of azolla, a fast-growing aquatic fern that can be used as a nutritious supplementary feed for poultry. Producing azolla locally could help reduce dependence on increasingly expensive commercial feed and lower overall production costs. The planned azolla ponds would allow participants to integrate feed production with poultry farming and move towards a more circular agricultural system. Chicken manure could potentially support crop or organic-fertiliser production, while locally cultivated feed could reduce the need for externally purchased inputs. These practices encouraged the participants to view the farm as an interconnected system rather than a collection of separate activities.

The transition from informal chicken rearing to systematic farm management initially appeared demanding. Participants had to follow schedules, maintain records and monitor the livestock carefully instead of relying solely on experience or observation. However, as the systems became familiar, they recognised that structured management made daily operations easier and more predictable.

"Systematic poultry farming seemed more tedious than traditional methods at first, but once the system is running, everything becomes easier and far more manageable."

The project organisers also emphasised that the long-term outcome would depend on participants' consistency and commitment.

"This project is highly actionable. For participants who are truly dedicated, progressing to the next phases can fundamentally transform their primary source of income."

Weather conditions presented some of the project's most serious challenges. Kampung Soi is vulnerable to seasonal monsoon flooding, so the original coop designs had to be modified. The team constructed elevated coops to reduce flood risk and provide greater protection for the chickens. When cold winds associated with the East Coast monsoon threatened the young chicks, participants installed plastic insulation, black weather netting and thick wood-shaving bedding to retain heat from the brooder lamps. These adaptations demonstrated that successful farming requires an understanding of local environmental conditions and the flexibility to modify infrastructure when risks change.

The participants also encountered a major logistical problem when a supplier failed to deliver the chicks to Pahang as agreed. To prevent further delays and protect the implementation schedule, the Project Manager travelled to Rawang personally to collect the flock and ensure its safe arrival. Although the delivery was later than planned, the chicks reached the prepared coops and the participants could begin applying their training. *The incident became another lesson in agribusiness: success depends not only on farming knowledge but also on resourcefulness when supply chains fail.*

The initiative contributes directly to SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth by creating potential livelihood and agripreneurship opportunities for local participants. It supports SDG 2: Zero Hunger by strengthening community-level poultry production, while the cultivation of azolla and more efficient use of farm resources contribute to SDG 12: Responsible Consumption and Production. The

flood-adaptive coop designs also demonstrate practical resilience aligned with SDG 13: Climate Action, and partnerships with training institutions, universities and buyers reflect SDG 17: Partnerships for the Goals.

Today, the five poultry coops in Kampung Sepat and Kampung Soi stand as evidence of the participants' effort and willingness to begin again. Ahmad is rebuilding after the closure of his café, Muiz is balancing employment with the responsibilities of a new farming enterprise, and Irfan is applying his agricultural experience to pursue greater financial stability. Their journey remains at an early stage, and its long-term profitability will depend on livestock survival, feed costs, market prices and consistent management. Nevertheless, the project has provided the infrastructure, skills and connections needed to begin. With the planned completion of the azolla ponds and continued technical support, these young agripreneurs are working towards a more circular and sustainable poultry system. *In Kuantan, a new beginning has taken shape, not only through the arrival of 500 chicks but through 10 participants gaining the confidence and knowledge to rebuild their futures.*











BUZZING WITH POTENTIAL: THE STINGLESS BEEKEEPERS OF KG KESOM

Organization: FQG EMPIRE
Parliament: P.038 Hulu Terengganu
Project Title: Projek Penternakan Kelulut Komunitig
Funding Allocation: RM40,000
Email: hnuraqilah@gmail.com

In the quiet village of Kg Kesom, Manir, located within the Hulu Terengganu parliamentary constituency, a new sound has become part of the community's daily life, the gentle activity of stingless bees, locally known as kelulut. Rural communities such as Kg Kesom often have limited income-generating opportunities, while agricultural livelihoods remain vulnerable to unpredictable weather and monsoon seasons. Residents needed an alternative economic activity that could be managed locally, involve people from different age groups and remain viable despite environmental challenges. Recognising this opportunity, FQG Empire, led by Nur Aqilah binti Hashim @ Amat, introduced the Projek Penternakan Kelulut Komuniti to help villagers develop practical beekeeping and entrepreneurship skills.

The initiative began in June 2025 with 10 local participants. Its implementation followed a carefully planned sequence, beginning with site clearing and the acquisition of the first 10 kelulut logs and honey-harvesting equipment. Participants were introduced to the basic biology and behaviour of stingless bees before progressing to hive care, colony monitoring and honey extraction. This phased approach allowed them to develop their knowledge gradually while becoming familiar with the daily responsibilities of managing living bee colonies. *Each log represented more*

than a beehive, it represented a new skill, a shared responsibility and the possibility of additional household income.

Recognising that physical assets would have little value without suitable knowledge, the project placed strong emphasis on practical training. Four participants attended the advanced Kenali Si Ratu dan Wira Kelulut course at Universiti Malaysia Terengganu, conducted in collaboration with the Terengganu Stingless Bee Association. The participants learned how to recognise colony structures, understand the roles of the queen and worker bees and identify factors affecting hive health and honey production. They later shared this knowledge with the wider group, strengthening peer learning within the village. By September 2025, the project had expanded from its original 10 logs to a total of 30 kelulut logs managed collectively by the community.

Among the participants was Mohd Kasim bin Idris, affectionately known as Pak Kasim. Although he was willing to learn about stingless bee farming, the idea of selling honey through social media initially felt unfamiliar and intimidating. Speaking in front of a camera and engaging with online customers were very different from the activities he was accustomed to. Through digital-marketing workshops and specialised TikTok Live training, Pak Kasim learned how to introduce products, communicate with viewers and present the community's honey more confidently.

"I learned how to conduct a live broadcast with greater confidence. Previously, I was shy to speak in front of the camera, but now I know some techniques to attract viewers.", Mohd Kasim bin Idris, project participant

Another participant, Hajah Halimah binti Teh, known within the community as Mokmah, joined the programme without previous experience in kelulut farming. During the practical sessions, she discovered that the honey-extraction process was easier to understand than she had expected. The experience gave her confidence that stingless bee farming could eventually provide supplementary income for her household. Her journey

demonstrated how an unfamiliar agricultural activity could become accessible when training was introduced patiently and through direct experience.

The project completed all 12 planned activities, and the 10 participants received certificates during the closing ceremony in October 2025. Initial promotional sales generated approximately RM120. Although this amount was modest, the project was still in its capacity-building and colony-development stage. Its more significant early achievement was the transformation of participants from complete beginners into community members capable of managing kelulut logs, extracting honey, responding to climate risks and promoting products through digital platforms. The knowledge and infrastructure established during the programme created a foundation for future production rather than immediate large-scale earnings.

Managing the bee colonies required patience and careful planning. Transporting the kelulut logs from the supplier to Kg Kesom was a delicate process because the colonies could become disturbed and leave their hives. The transfer therefore had to be carried out carefully at night, when the bees were less active. Space also presented a challenge because each log required an appropriate surrounding radius for placement and safe management. Additional land had to be cleared to accommodate the growing number of colonies while ensuring that participants could access and monitor the hives properly.

The most serious challenge emerged during the monsoon season. Heavy rainfall reduced the availability of flowering plants and natural food sources, placing pressure on the colonies. Participants learned that maximising honey extraction during such a period could weaken the bees and threaten the long-term survival of the hives. Guided by sustainability training, the community made the difficult decision to suspend honey harvesting until February 2026. This choice placed the health of the colonies above short-term income and demonstrated a growing

understanding of responsible beekeeping.

"Alhamdulillah, the sustainability training helped me understand how to care for the hives during the rainy season. I am now more confident about facing the monsoon.", Mohd Kasim bin Idris

The project contributes directly to SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth by developing a potential source of supplementary income and community enterprise. It supports SDG 2: Zero Hunger through sustainable agricultural production and SDG 13: Climate Action by equipping participants to respond to monsoon-related risks. Stingless bees also support pollination and local biodiversity, contributing to SDG 15: Life on Land. Collaboration with Universiti Malaysia Terengganu and the Terengganu Stingless Bee Association further reflects SDG 17: Partnerships for the Goals.

At the close of the formal programme, the community entered a monitoring phase to protect the health of the 30 colonies and strengthen participants' management practices. The villagers had learned that successful kelulut farming could not be rushed. Healthy colonies require suitable food sources, protection from harsh weather and careful decisions about when to harvest. Digital promotion and TikTok Live could help them reach customers, but long-term success would depend first on maintaining the strength of the bees and ensuring consistent honey quality.

Today, the story of Kg Kesom is one of patience, adaptation and growing confidence. Pak Kasim learned to speak to online audiences, Mokmah discovered that she could manage a new agricultural activity and the wider group chose colony survival over immediate profit during the monsoon. *The sweetest result of the project was not only the honey collected but the confidence cultivated among the people caring for the hives.* With continued monitoring, stronger flowering resources and responsible harvesting, the community has established the foundations for a resilient and sustainable kelulut enterprise.











GOLDEN ROOTS: EMPOWERING TERENGGANU'S COMMUNITY THROUGH MODERN FARMING

Organization: Pertubuhan Rekreasi Madani Terengganu
Parliament: P.036 Kuala Terengganu
Project Title: PROJEK PENANAMAN KUNYIT FERTIGASI
Funding Allocation: RM40,000
Email: afiqss01@gmail.com

In Kampung Jeram, Kuala Terengganu, many homemakers and part-time workers face difficulties finding flexible opportunities to supplement their household incomes. Conventional employment may not suit those who must balance work with childcare, household responsibilities and other family commitments. Without accessible income-generating activities, families can experience continuing financial pressure and have fewer opportunities to build greater economic independence. Recognising these challenges, Pertubuhan Rekreasi Terengganu Madani, led by Wan Muhammad Afiq bin Zainalabidin, introduced a modern agricultural initiative designed to transform an underutilised community space into a source of skills, food and potential income.

The Fertigation Turmeric Planting Project began in June 2025 and brought together 10 local participants. Supported by RM32,000 in utilised funding, the project provided the infrastructure and equipment required to establish an automated fertigation system. Blue planting drums, cocopeat, piping and digital timers were supplied to help participants cultivate turmeric more efficiently. Instead of relying solely on conventional soil-based farming, they were introduced to a system capable of delivering water and nutrients to each plant in controlled amounts. This approach

reduced the physical demands of irrigation and made farm management more compatible with participants' household and employment responsibilities.

Before planting could begin, the community had to reclaim the project site. The designated land was covered with thick weeds and had uneven terrain, making it unsuitable for the installation of a fertigation system. Heavy CASE machinery was carefully used to clear and level the area without damaging the surroundings. Participants then worked together to arrange the planting drums, prepare the piping and organise the site into a systematic agricultural space. *What had once been an overgrown and unproductive plot gradually became an orderly farm built through collective effort.*

Participants received practical training in preparing cocopeat and other growing media, operating the automated fertigation system and applying appropriate quantities of fertilisers, foliar sprays and organic pesticides. They also learned how to monitor plant growth, identify weak seedlings and respond to pest or heat-related stress. The workshops helped them understand that successful fertigation farming requires careful measurement and observation. Using too much fertiliser or applying the wrong agricultural input could damage the plants, while delayed intervention could allow pests or diseases to spread. Through repeated practice, participants became more confident in managing the system and making informed decisions.

The experience of Amalina binti Draman @ Saidi reflects the confidence developed through the programme. Amalina entered the project without a background in modern farming. At first, the differences among plant hormones, foliar sprays, fertilisers and pesticides were unfamiliar to her. Through demonstrations and hands-on practice, she learned how to prepare the growing medium, manage the fertigation equipment and select the appropriate input for each stage of cultivation. Harvesting her first batch of turmeric helped her recognise farming as a potential source of supplementary household income that could be managed alongside her

family responsibilities.

"I am now clearer about the differences between hormones, foliar sprays and pesticides, as well as how to use them.", Amalina binti Draman @ Saidi, project participant

Another participant, Amram bin Nawi, had long been interested in agriculture but lacked access to suitable technology and technical guidance. The programme exposed him to a more efficient and systematic approach to cultivation. By learning how to manage irrigation, nutrients and crop health through fertigation, Amram improved his ability to plan production and expressed an interest in expanding his farming activities. His experience demonstrated how access to appropriate equipment and knowledge could help transform an existing interest into a more structured agricultural enterprise.

The participants also learned how to respond when crops did not develop as expected. Extreme heat, weak root systems and pest attacks contributed to the early mortality of some seedlings. Instead of allowing these losses to affect the entire planting cycle, participants were trained to identify unhealthy plants, carry out thinning and carefully replace damaged seedlings. Rokiah binti Salleh found this technique particularly useful because it helped protect the productivity of the remaining crop.

"The technique of carefully removing and replacing seedlings is very useful in ensuring that the plants remain healthy and productive.", Rokiah binti Salleh, project participant

Beyond technical development, the initiative strengthened cooperation among residents. Participants prepared the site, managed the system and addressed crop problems collectively. Those who understood a technique more quickly could assist others, while shared responsibilities made the daily farm workload more manageable. As one participant explained:

"This group activity not only increases our knowledge but also strengthens community bonds."

The project contributes directly to SDG 2: Zero Hunger by supporting local food production through modern farming. Its controlled use of water and agricultural inputs advances SDG 12: Responsible Consumption and Production, while opportunities for supplementary income support SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth. By creating a flexible agricultural pathway that can accommodate women's family and household responsibilities, the initiative also advances SDG 5: Gender Equality. The collective development and management of the project further support stronger community participation and shared ownership.

The Fertigation Turmeric Planting Project has cultivated more than turmeric. It has developed confidence, practical abilities and a stronger sense of cooperation among the 10 participants. Amalina gained the knowledge to distinguish and correctly apply different agricultural inputs, Amram discovered how technology could help him expand his farming ambitions, and Rokiah learned techniques for protecting plant health and maintaining crop productivity. *Each growing turmeric plant represents the knowledge and persistence of a community learning to create opportunity from its own land.*

Looking ahead, the project organisers plan to continue monitoring the crops and introduce additional digital tools, such as moisture sensors and mobile applications, to improve farm management. There are also plans to establish a small participant cooperative that could coordinate production, strengthen market access and help secure fair and consistent demand for the harvested turmeric. With continued technical support, sound financial planning and collective participation, the golden roots growing in Kampung Jeram could become the foundation of a more sustainable and economically resilient future for the community.











ROOTED IN HERITAGE: BUILDING AN ECOTOURISM FUTURE IN ULU GEROH

Organization: KOMUNTII MADANI ULU GEROH
Parliament: P.071 Gopeng
Project Title: Projek Pemerkasaan Komuniti Orang Asli Melalui Pembangunan Eko Pelancongan
Funding Allocation: RM40,000
Email: fredy8470@gmail.com

In Kampung Ulu Geroh, Gopeng, Perak, the surrounding forest is more than a natural landscape. It is closely connected to the identity, traditional knowledge and daily lives of the Orang Asli community. The village's natural environment and cultural heritage also hold significant potential for community-based ecotourism. However, many residents continue to depend on irregular employment and livelihoods connected to forest resources, making household incomes uncertain. Recognising the opportunity to diversify local livelihoods while protecting the community's cultural identity and environment, Komuniti MADANI Ulu Geroh introduced the Projek Pemerkasaan Komuniti Orang Asli Melalui Pembangunan Eko Pelancongan.

Implemented as a Phase 1 economic-empowerment initiative in 2025, the project was led by Long Keruna A/L Bah Bekoi and involved 15 Orang Asli participants between the ages of 18 and 45. The initiative aimed to develop Ulu Geroh as a community-managed ecotourism destination while ensuring that local residents remained at the centre of tourism planning, decision-making and service delivery. Rather than allowing external operators to control the village's tourism potential, the project

strengthened the capacity of community members to manage activities based on their own knowledge, priorities and cultural values.

Participants attended structured training in tour guiding, cultural facilitation, customer service, digital marketing, safety management and community leadership. These sessions helped them understand how to welcome visitors, explain local attractions, respond to customer needs and manage tourism activities safely. Their existing knowledge of the forest, village and cultural practices became an important foundation for the programme. The training did not replace this knowledge; it helped participants present and manage it within a more organised community-tourism model. *The community was not simply being prepared to receive visitors, it was being equipped to tell its own story.*

The project also supported improvements to chalet facilities, public infrastructure and other tourism-related amenities. Participants contributed to site preparation and practical upgrading activities intended to make the village safer, more comfortable and more attractive to visitors. Their direct involvement strengthened their sense of ownership because the facilities were being developed within their own community and for their collective benefit. Through hands-on participation, they also gained basic exposure to construction, site management and the maintenance responsibilities associated with tourism facilities.

Implementation required close cooperation among community members, local Organizations, village leaders and agencies involved in Orang Asli development and tourism promotion. The organising team's grassroots experience and knowledge of the community helped ensure that activities responded to local needs rather than imposing an external tourism model. Participants were involved not only as trainees but also as contributors to planning and implementation. This community-driven approach was essential because ecotourism can be sustainable only when residents have meaningful control over how their environment, culture and community spaces are represented.

Unpredictable weather presented one of the project's main challenges. Heavy rainfall and changing environmental conditions delayed construction, infrastructure upgrades and outdoor site-preparation activities. Since many components were implemented in open or forested areas, the project team had to balance progress with participant safety and the need to protect the surrounding environment. Activities were reorganised according to weather conditions, while more flexible schedules and contingency plans allowed indoor or lower-risk tasks to continue during periods of rain. This adaptive approach enabled the project to maintain momentum without compromising the quality of the work.

The initiative created early income opportunities through guided tours, chalet services, ecotourism activities and other forms of visitor engagement. Reported estimated income ranged from approximately RM500 to RM5,000, depending on the activities conducted and the level of participation. Revenue was channelled into a community fund to support future tourism development and maintenance. Although the project remained at an early stage and the income was not yet consistent, the community-fund model established an important principle: tourism revenue should contribute to shared development and longer-term benefits for Kampung Ulu Geroh.

Participants also became more confident in communicating with visitors, managing tourism activities and contributing to community decisions. For individuals who previously had limited exposure to formal tourism operations, interacting with visitors and promoting activities required courage and practice. Through repeated engagement, they strengthened their customer-service, teamwork and leadership abilities. The programme also introduced them to digital promotion and showed how online platforms could help visitors discover Ulu Geroh. Every conversation with a visitor became an opportunity for participants to share their knowledge, strengthen their confidence and create value from the heritage of their own community.

Feedback from the community reflected strong support for the initiative:

"This project is a wise initiative for uplifting and empowering the Orang Asli community. The location of the Orang Asli village in Ulu Geroh, developed as an ecotourism centre, has opened many economic opportunities that can benefit the local community. Congratulations to the organisers."

Beyond income generation, the project strengthened environmental awareness and encouraged participants to consider how tourism could be developed without damaging the resources that attract visitors. The forest, cultural practices and community identity are central to Ulu Geroh's appeal, but they are also vulnerable if tourism is poorly managed. Participants therefore learned that visitor growth must be balanced with environmental protection, cultural respect and community control. The project demonstrated that ecotourism should not turn culture into a commodity or place pressure on natural resources; it should provide a platform through which the community can protect, interpret and benefit from its heritage on its own terms.

The initiative contributes directly to SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth by diversifying income opportunities through community-managed tourism. It supports SDG 10: Reduced Inequalities by strengthening economic participation among the Orang Asli community and SDG 11: Sustainable Cities and Communities through the protection of cultural and natural heritage. Its emphasis on environmental stewardship contributes to SDG 15: Life on Land, while collaboration with tourism and community-development agencies reflects SDG 17: Partnerships for the Goals.

The project's most important early achievement is the stronger sense of ownership developed among participants. They gained new skills while contributing directly to facilities and activities that could shape the future of their village. Their knowledge of Ulu Geroh's land, environment and culture remained at the centre of the initiative, strengthened by new

capabilities in tourism management, customer engagement and promotion.

Moving forward, the community plans to expand tourism activities, improve visitor facilities and strengthen marketing through partnerships with Tourism Perak and other relevant agencies. Additional promotional support will be important for increasing visibility and attracting a steady number of responsible visitors. Continued community leadership will be equally essential to ensure that future growth remains environmentally sustainable and culturally respectful. *Rooted in its forest, heritage and community knowledge, Ulu Geroh is building an ecotourism future in which local people are not merely part of the attraction, they are its owners, storytellers and leaders.*











HEALING HANDS, NEW OPPORTUNITIES: MERIDIAN THERAPY FOR COMMUNITY WELL-BEING

Organization: Junior Chamber International Pearl (Malaysia)
Parliament: P.045 Bukit Mertajam
Project Title: Meridian Therapy For Community Well-Being And Holistic Health
Funding Allocation: RM30,000
Email: vivian.jcipearl@gmail.com

At Taman Bukit in Bukit Mertajam, Penang, a group of participants gathered to explore how traditional wellness skills could support personal well-being, community care and supplementary income. Many people experience everyday physical discomfort and stress but may have limited access to affordable wellness services. At the same time, community members interested in the wellness sector often lack structured training, suitable equipment and the confidence to offer services professionally. Recognising this opportunity, Junior Chamber International Pearl (Malaysia), led by Vivian Tan Yun Mei, introduced SDG's Meridian Therapy for Community Well-Being and Holistic Health as a Phase 3 economic-empowerment initiative.

The project engaged 10 multiracial participants and introduced them to Meridian Therapy, a traditional wellness approach involving techniques such as Gua Sha, moxibustion, detoxification-related wellness practices and simulated therapy sessions. Participants completed 60 hours of practical training with a wellness centre and received starter kits valued at approximately RM1,000 each. These resources allowed them to continue practising the techniques after the formal training and provided a foundation for those interested in offering small-scale wellness services. In

addition to technical learning, the programme introduced participants to customer communication, marketing and basic promotional strategies.

Junior Chamber International Pearl had previously implemented the Essential Skills for SDG Leaders project, which provided 30 multiracial participants with exposure to Sustainable Development Goals and leadership development. Building on that experience, the Organization expanded its community-empowerment work into holistic wellness. The new initiative combined practical skills development with potential livelihood opportunities while encouraging greater awareness of self-care and preventive well-being. *The participants were not only learning techniques; they were developing the confidence to turn new knowledge into a responsible community service.*

At the beginning of the programme, public scepticism presented an important challenge. Some participants and community members were unfamiliar with Meridian Therapy, while others were uncertain about traditional practices such as Gua Sha and moxibustion. Trust could not be developed through claims alone. Facilitators therefore provided clear explanations, professional demonstrations and closely supervised practical sessions. Participants were encouraged to ask questions, understand the limitations of each technique and practise appropriate communication with prospective clients. Because moxibustion involves heat and all hands-on therapies carry safety considerations, careful training, hygiene and awareness of contraindications were essential.

As participants progressed through the practical sessions, they became more comfortable handling the equipment and communicating with one another. Simulated treatments allowed them to practise the sequence of a wellness session, explain procedures and respond to client comfort. The supportive learning environment strengthened their confidence, teamwork and interpersonal skills. Participants also learned that traditional wellness services should be offered responsibly and should not replace medical diagnosis or treatment. Individuals experiencing persistent pain, serious

symptoms or health concerns should be referred to qualified healthcare professionals.

After completing the training, several participants began providing Meridian Therapy services on a part-time basis from home or through small-scale arrangements. Some reported charging approximately RM80 for a one-hour session, creating an opportunity for supplementary income while gaining experience in client care and service delivery. These early earnings did not yet represent stable or project-wide income, but they demonstrated that some participants were able to translate their training into a practical service. The experience also helped them understand the responsibilities involved in scheduling appointments, maintaining hygiene, communicating clearly and managing customer expectations.

"This project was very beneficial because I learned new skills in Meridian Therapy, could support the well-being of family members and friends, and gained an opportunity to earn supplementary income. I hope more training programmes like this can continue in the future.", Project participant

Participants valued the opportunity to use their new skills with family members and friends seeking relaxation or support for everyday discomfort and stress. More importantly, they developed confidence in interacting with clients and presenting their services professionally. The programme showed that a service-based livelihood requires more than technical ability; it also depends on empathy, communication, ethical practice and trust. *For the participants, every supervised session became an opportunity to practise not only a technique but also the responsibility of caring for another person's comfort and safety.*

The initiative contributes to SDG 3: Good Health and Well-Being by promoting self-care awareness and access to community wellness activities. It supports SDG 4: Quality Education through practical skills training and SDG 8: Decent Work and Economic Growth by creating potential pathways for part-time and home-based wellness services. Its

multiracial and community-based approach also contributes to SDG 10: Reduced Inequalities, while the partnership between trainers, participants and community Organizations reflects SDG 17: Partnerships for the Goals.

The project demonstrated that community wellness training can create both social and economic value when it is delivered responsibly. Participants gained practical skills, increased confidence and greater awareness of entrepreneurship, while the community gained access to individuals trained in basic traditional wellness services. However, public awareness must be developed carefully, with transparent information about what these services can and cannot provide. Meridian Therapy should be presented as a complementary wellness practice rather than a proven treatment for medical conditions.

Moving forward, JCI Pearl plans to organise advanced workshops, extend training to additional communities and strengthen the network of participants interested in wellness services. Further development will require equipment, training materials, suitable spaces, extended funding and responsible marketing support. Clear safety procedures, appropriate referral guidance and continued supervision will also be important for protecting participants and clients. With these safeguards in place, the initiative can continue providing participants with a pathway towards greater confidence, community contribution and supplementary income through responsible wellness practice




UNLOCK YOUR SKILL
UNLOCK YOUR SKILL







FROM POND TO PEKASAM: BUILDING A COMMUNITY AGRIBUSINESS IN SUNGAI LAMPAM

Organization: BONUSMART
Parliament: P.073 Pasir Salak
Project Title: TERNAKAN IKAN TILAPIA DAN PEMPROSESAN IKAN PEKASAM KOMUNITI SUNGAI LAMPAM
Funding Allocation: RM120,000
Email: kadirsurib01@gmail.com

In Sungai Lampam, Teluk Intan, fish farming has developed into more than an activity for producing food. It has become a platform through which community members learn, work together and explore new sources of income. The Tilapia Farming and Pekasam Fish Processing Project, implemented by BONUSMART under the management of Abd Kadir bin Surib @ Abdullah, was designed to equip participants with the knowledge and practical experience required to manage tilapia production and become reliable local suppliers. By combining aquaculture with food processing, entrepreneurship and marketing, the initiative introduced participants to the full journey of a product, from raising fish to transforming it into something with a longer shelf life and greater market value.

The project built upon BONUSMART's experience in sustainable community farming. During Phase 1, implemented from August 2023 to April 2024, the Organization introduced hydroponic cultivation of leafy vegetables and trained participants to produce agricultural inputs such as Fish Amino Acid and EM4. Training was also extended to Sekolah Kebangsaan Chikus and the surrounding community. The initiative later received recognition

through the KSI Award. Phase 2, implemented from May 2025 to January 2026, expanded the model by introducing an aquaponics system that connected vegetable cultivation with fish farming through a Recirculating Aquaculture System. Participants learned how to monitor water quality and understand the biological process through which ammonia is converted into nitrate within the system.

Through these earlier phases, participants discovered that productive agriculture does not always require large areas of land. Hydroponic and aquaponic systems allowed them to grow vegetables and raise fish within more controlled spaces. The implementation model combined four months of active training with six months of monitoring, giving participants additional time to practise their skills and receive technical guidance. *What began as an introduction to modern farming gradually developed into an integrated community enterprise involving fish, vegetables and processed food.*

The project faced several technical and financial challenges. Tilapia supplies were not always consistent, while uneven fish growth affected production planning and harvest volumes. Fish feed and electricity were among the most significant operating expenses, and weather fluctuations added further uncertainty. Participants therefore learned that successful aquaculture requires more than stocking a pond and waiting for the fish to grow. It depends on careful water management, appropriate feeding, observation of fish health and continuous control of operational costs.

To reduce dependence on expensive commercial pellets, participants were trained to formulate supplementary feed using locally available materials such as azolla, kangkung shoots, bran and vegetable leaves. Electricity consumption was managed by optimising the operation of aerators, while heat barriers were introduced to help regulate pond temperatures. Participants also applied cost-effective techniques to improve dissolved oxygen levels and used Effective Microorganisms as part of their water-management practices. Nearby river water was utilised to lower operating costs, with water conditions requiring appropriate monitoring before use.

These strategies encouraged participants to think creatively about how local resources could make the farming system more affordable and resilient.

Aquaculture was only one part of the learning journey. Participants were also trained to transform tilapia into ikan pekasam, a traditional fermented fish product with a longer shelf life than fresh fish. They explored complementary products such as acar buah and daging dendeng, alongside the vegetables cultivated through the hydroponic system. Processing helped diversify the community's products, reduce the risk of unsold fresh fish and create opportunities during higher-demand periods such as Ramadan. Participants also gained exposure to product development, packaging, branding, business proposals and both online and offline marketing. A harvested tilapia was no longer viewed only as fresh fish; it could become a branded product with a longer market life.

The project recorded encouraging outputs. Participants collectively produced approximately 20 kilograms of tilapia pekasam, 60 kilograms of fresh fish and 50 kilograms of frozen fish. Other community products included 42 kilograms of acar buah, 30 kilograms of daging dendeng and between 20 and 30 kilograms of hydroponic vegetables. Together, these products generated an estimated value of approximately RM2,600. Although the amount was modest, it demonstrated the potential of an integrated production-and-processing model in which the community could create value from several products rather than depending on a single harvest.

Instead of distributing the proceeds as individual profits, participants agreed to reinvest them in the community initiative. The funds were used to purchase seeds, fish feed and fingerlings, pay utility expenses and support community activities, learning visits and participant-engagement programmes. This revolving model helped keep the farming system operational while strengthening collective ownership. Participants understood that reinvestment could delay immediate personal returns, but

it also provided the resources needed to sustain and expand the project. The community farm gradually became a weekly gathering place where residents could work, exchange ideas and share fresh fish, vegetables and traditional food products.

The influence of the project extended beyond the shared farm. Rizal, one of the participants, established a one-acre fertigation chilli farm and operated it for two consecutive years. His activities generated approximately RM12,000 in 2024 and RM9,000 in 2025, demonstrating how skills and confidence developed through community agriculture could support an independent enterprise. Another participant, Yazid, established a five-tank biofloc tilapia system and generated approximately RM800. Other participants introduced small-scale cultivation and fish production at home, primarily to support household food consumption. *Their journeys showed that a community project can become a starting point from which individuals develop agricultural activities suited to their own resources and ambitions.*

Participants also gained exposure to farm-management practices, organic-input production and the complete value chain from cultivation to processing and sales. Visits to other farms and agricultural exhibitions introduced them to new technologies, business ideas and production models. These experiences changed how some participants viewed agriculture. Rather than seeing it only as physically demanding work or a traditional household activity, they began to recognise its potential as a modern and rewarding livelihood when supported by planning, innovation and market knowledge.

The initiative contributes directly to SDG 2: Zero Hunger by strengthening local fish and vegetable production. It supports SDG 8: Decent Work and Economic Growth through aquaculture, food-processing and entrepreneurship skills, while the conversion of fresh produce into longer-lasting products contributes to SDG 12: Responsible Consumption and Production. Its community-reinvestment approach supports SDG 1: No

Poverty, and collaboration with government offices, agricultural and fisheries agencies, NGOs and local leaders reflects SDG 17: Partnerships for the Goals.

Visitors from the District Office, local leadership, agricultural and fisheries agencies, the Perak Menteri Besar's Office and community Organizations recognised the project's role in bringing residents together around productive activities. The Member of Parliament for Pasir Salak also commended the participants' teamwork. This external recognition strengthened the community's motivation, but the project's most meaningful achievement remained the participants' ability to manage, improve and sustain the initiative collectively.

Today, the Sungai Lampam project demonstrates how aquaculture, hydroponics and traditional food processing can be connected within one community enterprise. Participants did more than raise tilapia: they learned to manage production costs, develop value-added products, test market opportunities and reinvest earnings for continued growth. With sustained technical monitoring, stronger branding and reliable market access, the initiative has the potential to expand its role as a community food-production and learning hub. *From pond to pekasam, every stage of the process reflects the power of knowledge-sharing, innovation and collective effort in building a more resilient rural economy.*











CULTIVATING CARE: HOW MUSHROOMS ARE SUSTAINING A MAAHAD COMMUNITY

Organization: Maahad Tahfiz Al-Quran Al-Barakah Lilbanat
Parliament: P.002 Kangar
Project Title: Cendawan Kasih Organik
Funding Allocation: RM40,000
Email: noorulsadiqin@gmail.com

At Maahad Tahfiz Al-Quran Al-Barakah Lilbanat in Kangar, Perlis, an unused piece of land has been transformed into a source of food, learning and hope. The maahad accommodates approximately 60 female students and depends heavily on public donations to support its daily operations and student welfare. For guardians and asnaf carers connected to the institution, stable income opportunities are also limited. Recognising the need for a more sustainable source of support, the Cendawan Kasih Organik Project (Phase 1) was introduced to establish a community-managed mushroom enterprise within the maahad compound.

The initiative was led by Noorulsadiqin Azbiya binti Yaacob, a lecturer and counsellor at Universiti Utara Malaysia. Between 2020 and 2024, she implemented four livelihood initiatives for B40 communities involving free-range poultry, aquaponics and 3R activities. Drawing upon this experience, she introduced mushroom cultivation as an accessible agricultural activity capable of producing food and generating supplementary income within a relatively small area. The project involved guardians and asnaf participants between the ages of 18 and 53, together with students aged seven to 17, creating opportunities for different generations to learn and contribute together.

Implementation began with the construction of a mobile mushroom house that served as both a production facility and practical training centre. Participants learned how to prepare the space, arrange mushroom blocks, manage watering, maintain humidity, identify contamination and harvest mature mushrooms. The cultivation of *cendawan sisir*, also known as *cendawan kukur*, offered an encouraging starting point because harvesting could begin relatively quickly under suitable conditions. Seeing mushrooms emerge within the production house strengthened participants' motivation and helped them connect their daily care with visible results. *Every successful harvest showed that the previously unused land could contribute directly to the maahad's sustainability.*

As participation and confidence increased, a second mushroom house was developed to expand production capacity. The additional facility reflected the group's willingness to move beyond small-scale learning towards more structured production. Participants began organising maintenance and harvesting responsibilities while developing a better understanding of crop cycles and market timing. The mushroom houses gradually became shared spaces where technical learning, teamwork and livelihood development took place side by side.

The production journey was not always straightforward. Prolonged rainfall and periods of high temperature made humidity difficult to control, affecting mushroom growth and yield. The inconsistent quality of some mushroom blocks and the presence of infections also required close monitoring and quick intervention. Water management had to be adjusted according to changing environmental conditions, while occasional health constraints affected participant attendance. These challenges demonstrated that mushroom farming, despite requiring limited land, still demands consistent environmental management, quality inputs and careful observation.

Trainers responded through repeated hands-on guidance and continuous monitoring. Participants learned how to adjust watering and humidity

according to actual conditions rather than follow a fixed routine without observation. They were trained to recognise signs of unhealthy or contaminated blocks and take appropriate action before problems spread. This adaptive approach helped them understand that successful cultivation depends on responding to the mushrooms' growing environment. *The participants learned that caring for a mushroom house required patience, discipline and attention to small changes that could easily be overlooked.*

Fresh mushrooms presented another challenge because of their relatively short shelf life and changing market demand. To reduce losses and create additional marketing opportunities, participants began processing part of the harvest into dried mushrooms and mushroom-based *pekasam*. These products could be stored for longer periods and sold to customers who might not purchase fresh mushrooms. Direct-to-consumer sales were also introduced to improve profit margins, while discussions with industry stakeholders created possible pathways for future bulk purchases.

Over 10 months, the participants produced approximately 208.76 kilograms of mushroom products and generated RM5,110.90 in income. Part of the harvest was used for food consumption, while the remainder was sold to support the initiative. Although the income was not yet sufficient to cover all the maahad's operational needs, it demonstrated that the community could transform available space, practical knowledge and collective effort into a productive microenterprise.

The project also helped participants develop a more business-oriented mindset. They began discussing how to organise production cycles, manage harvesting schedules and respond to customer orders more systematically. Their willingness to continue collectively and increase production reflected growing confidence in managing a small- to medium-scale operation. Rather than waiting for external assistance alone, they began exploring how their own enterprise could contribute to the maahad's long-term financial sustainability.

Collaboration with Universiti Utara Malaysia through the Service Learning Malaysia–University for Society, or SULAM, programme further strengthened the participants' digital-marketing and communication skills. Participants also attended external food-processing training at Universiti Malaysia Perlis, where they were introduced to mushroom seasoning, mushroom-based snacks and retort technology. These experiences expanded their understanding of what could be produced from mushrooms and how value-added processing might overcome shelf-life limitations and increase future earnings.

Beyond production and income, the project developed unity, discipline and shared responsibility. Guardians, carers, students, trainers and university partners worked towards a common objective: supporting the welfare and sustainability of the maahad. Participants gradually became capable of managing the project with less external assistance, indicating that practical knowledge had been successfully transferred. The mushroom houses cultivated more than food; they nurtured confidence and a belief that the community could contribute to securing its own future.

One participant expressed this hope clearly:

"Alhamdulillah, terima kasih banyak APPGM. Saya berharap maahad dapat meneruskan projek ini untuk jangka masa panjang. Pada masa kini, mendapatkan bantuan bukanlah sesuatu yang mudah. Maahad perlu mencari sumber pendapatan sendiri bagi memastikan kelangsungan operasi dan kebajikan pelajar terus terjamin."

"Praise be to God, and thank you very much to APPGM. I hope the maahad can continue this project over the long term. Assistance is not easy to obtain today, so the maahad must develop its own source of income to sustain its operations and safeguard the students' welfare."

The initiative contributes directly to SDG 1: No Poverty by developing a potential income source for guardians and asnaf participants. It supports

SDG 2: Zero Hunger through local food production and SDG 8: Decent Work and Economic Growth through practical agricultural and entrepreneurship skills. Its focus on processing and reducing post-harvest losses contributes to SDG 12: Responsible Consumption and Production, while collaboration with UUM, UniMAP and community partners reflects SDG 17: Partnerships for the Goals.

The Cendawan Kasih Organik Project demonstrates what a committed community can achieve when technical training is combined with entrepreneurship, patient guidance and shared ownership. The income and production figures represent encouraging early progress, but the project's deeper value lies in participants' ability to continue managing the enterprise independently. With better environmental controls, consistent mushroom-block quality, diversified products and stronger market access, the initiative can continue growing as a source of food, skills and financial support.

For the solution provider, the project also reinforced that community transformation requires more than delivering equipment or conducting short-term training. It requires consistent engagement, an understanding of participants' circumstances and the patience to adapt when challenges arise. *At Maahad Al-Barakah Lilbanat, every mushroom harvested carries the care of a community determined to protect its students and cultivate a more sustainable future.*











CRAFTING INDEPENDENCE: HOW LABUAN'S WOMEN TURNED SKILLS INTO ENTERPRISE

Organization: Persatuan Wanita Tani Labuan Al-Barakah Lilbanat
Parliament: P.166 Labuan
Project Title: Projek Memperkasakan Kemahiran Wanita Tani Dan Ekonomi Homebased Industri
Funding Allocation: RM40,000
Email: mimieduasa@gmail.com

Labuan holds an important position in Malaysia's economy as a duty-free island, an offshore financial centre and a maritime hub connected to the oil and gas industry. However, the benefits of this economic activity are not experienced equally across the community. Women from low-income households, particularly single mothers, widows, homemakers and older women with limited formal qualifications, continue to face difficulties securing stable work. Many possess creativity, traditional knowledge and the ability to produce food, crafts and personal-care products, but lack the technical guidance, capital and market access needed to develop these abilities into sustainable businesses.

An APPGM-SDG issue-mapping exercise conducted in 2025 identified several barriers faced by women farmers and home-based producers in Labuan. Many had limited exposure to entrepreneurship, product development, branding, packaging, digital marketing and regulatory requirements. As a result, potentially marketable ideas often remained informal and could not progress into consistent, commercially ready products. Recognising this gap, the Projek Memperkasakan Kemahiran Wanita Tani dan Ekonomi Home-Based Industri (Y25-SP165) was

implemented with an APPGM-SDG allocation of RM40,000.

The initiative was implemented in collaboration with Persatuan Wanita Tani Labuan under the guidance of Solution Provider Mimi Duasa. Her continuous mentorship, technical support and close engagement helped participants move through each stage of learning and production. The project brought together 28 women, including single mothers, widows, homemakers, kindergarten assistant teachers and members of the B40 community. Rather than treating the participants as one general group, the project organised them into four production clusters: natural soap, lemongrass essential oil, rubber-leaf craft art and pandan-leaf weaving. Each cluster appointed a leader and secretary to strengthen coordination, accountability and collective responsibility.

Training was practical and covered the complete journey from raw material to finished product. Participants learned how to prepare materials, follow product formulations, maintain consistency and improve presentation through packaging and branding. They were also introduced to basic entrepreneurship and encouraged to consider pricing, customer preferences and marketing. By working directly with the products, participants could identify mistakes, refine their methods and develop greater ownership over their production activities. *What began as individual creativity gradually became an organised community effort with the potential to reach real customers.*

The cluster approach strengthened peer learning and mutual support. Participants who understood a technique more quickly could guide others, while shared responsibilities made production more manageable. As their confidence increased, the women began viewing themselves not only as trainees but as producers and potential entrepreneurs. By the end of the programme, they had developed four categories of home-based products with commercial potential. These products reflected both innovation and local identity, from personal-care items produced using natural materials to traditional weaving and craft products created from pandan and rubber

leaves.

The products were showcased at several platforms, including the Borneo Art Festival from 13 to 17 November 2025, national-level promotional engagements and project exhibition booths. These opportunities allowed participants to present their work, interact with customers and receive market feedback. Public exposure also validated the quality and creativity of their products and helped the women understand how presentation and communication influence purchasing decisions. One participant recorded monthly sales of approximately RM1,280, providing encouraging evidence that the training could translate into genuine income opportunities.

The experience of Jaila, one of the participants, illustrates the personal transformation created through the initiative:

"Melalui projek ini, saya telah belajar beberapa kemahiran kosmetik seperti sabun, PCO organik dan minyak serai wangi. Kini saya sudah mempunyai sumber pendapatan sendiri dan berjaya menjual produk saya dengan pendapatan sekitar RM350 sebulan."

"Through this project, I learned several personal-care production skills, including soap, organic PCO and lemongrass oil. I now have my own source of income and have successfully sold my products, earning approximately RM350 per month."

For Jaila, the income represented more than a financial figure. It demonstrated that she could use her newly acquired skills to produce something customers valued. This achievement strengthened her confidence and gave her greater control over her economic participation. *Her first regular earnings transformed training into independence and showed other participants what could be possible with continued effort.*

The journey towards commercialisation nevertheless presented important challenges. Natural soap and lemongrass essential-oil products may fall

within regulated product categories depending on their formulation, intended use and marketing claims. Cosmetic products in Malaysia generally require notification through the National Pharmaceutical Regulatory Agency under the Ministry of Health before being placed on the market; notification is not the same as formal product approval. Appropriate laboratory analysis, safety documentation, compliant labelling and manufacturing practices may also be required. Participants therefore needed specialist guidance before expanding sales or making health-related claims about their products.

To address these requirements, the project planned engagement sessions with experienced Solution Providers and regulatory specialists. A portion of the grant was allocated for laboratory analysis through ALS Sdn. Bhd. to support product-safety and compliance processes. Further financial support was also explored because limited seed funding and the absence of a shared production and training facility restricted the initiative's ability to scale. A dedicated centre could enable participants to coordinate production, store equipment, conduct training and maintain more consistent quality standards.

The project contributes directly to SDG 1: No Poverty by supporting income generation among women from B40 households. It advances SDG 5: Gender Equality by strengthening women's skills, confidence and economic independence, while supporting SDG 8: Decent Work and Economic Growth through self-employment and microenterprise development. Its collaboration among APPGM-SDG, Persatuan Wanita Tani Labuan, technical laboratories, Solution Providers and community participants also reflects SDG 17: Partnerships for the Goals.

The project's achievements extend beyond the number of products developed or the income earned. Women who previously had limited economic opportunities learned to organise production, work collectively and present their products to customers. They developed confidence through practical achievement and began seeing their knowledge and

creativity as valuable economic assets. The cluster model also built a support network through which participants could share responsibilities and continue learning from one another.

Moving forward, the participants will require continued regulatory guidance, product testing, shared facilities, seed capital and stronger market connections. Developing standard production procedures and a collective Labuan identity could also improve product consistency and visibility. With these foundations in place, the four production clusters can progress from project-supported activities towards more sustainable community enterprises. *In Labuan, 28 women have shown that when creativity is strengthened by knowledge, partnership and opportunity, home-based skills can become pathways to confidence, income and independence.*






PROJEK MEMPERKASAKAN KEMAHIRAN WANITA TANI
MELALUI EKONOMI HOMEBASED INDUSTRI





EMPOWERED WOMEN, RESILIENT CITIES: BREAKING THE CYCLE OF POVERTY THROUGH SKILLS AND SUPPORT

Organization: Good shepherd services
Parliament: P.172 Kota Kinabalu
Project Title: Empowered Women, Resilient Cities: Breaking the Cycle of Poverty Through Skills and Support
Funding Allocation: RM30,000
Email: joann.sitorus@goodshepherd.my

In Likas, Kota Kinabalu, rapid urban development exists alongside the continuing realities of poverty and unstable household income. Many women from low-income communities possess valuable skills in food preparation and home-based production, yet their ability to earn consistently remains restricted by limited capital, insufficient business knowledge and weak access to markets. For homemakers balancing childcare and household responsibilities, conventional employment may also be difficult to pursue. Recognising this gap, Good Shepherd Services implemented a Community-Based Development Project under APPGM-SDG to help women transform familiar food-production skills into more structured livelihood opportunities.

The project engaged 10 women from Kg. Suang Parai, Kg. Pulau Penampang and the Sepanggar low-cost housing area. Most were homemakers who supplemented their household income through informal or irregular activities, including small-scale food production. Although they were motivated to improve their financial circumstances, many had never received formal entrepreneurship training or managed a business systematically. The programme was therefore designed around practical production, continuous mentoring and seed-funding support rather than

classroom instruction alone.

Participants learned food-processing techniques, hygiene and safety, packaging, costing, pricing and basic marketing. They produced and refined their own products throughout the training, allowing them to apply each lesson immediately. Repeated practice helped improve product quality and consistency, while direct guidance enabled participants to identify mistakes and make adjustments. *The women did not wait until the end of the programme to become entrepreneurs; their businesses developed gradually through every product prepared, packaged and offered to a customer.*

For Juilih Taip, the programme created an opportunity to strengthen an existing but inconsistent seasonal-cookie business. Depending mainly on festive demand made it difficult for her to earn throughout the year. With guidance from the project, she diversified into rempeyek and improved her production and marketing practices. As customer demand developed, she began earning approximately RM50 to RM500 per month, depending on sales. Although the amount continued to fluctuate, product diversification gave her a broader foundation and greater confidence in operating a home-based food enterprise.

The journey of Riziah Kusop reflected an even greater shift from household production to micro-entrepreneurship. Before joining the programme, she prepared snacks mainly for personal consumption and had limited knowledge of commercial food processing. Through practical training, she learned to maintain hygiene, improve packaging, calculate costs and establish suitable selling prices. She subsequently developed her own product, keropok popiah seaweed roll, and began producing between 40 and 60 packs per month, generating approximately RM400 to RM600 in monthly income.

“Saya telah mempelajari teknik pemprosesan makanan yang betul, kawalan kebersihan serta cara pembungkusan yang lebih menarik dan tahan lama. Kini saya mampu menghasilkan produk sendiri dan

menjadikannya sebagai sumber pendapatan tambahan."

"I learned proper food-processing techniques, hygiene control and how to create packaging that is more attractive and durable. I can now produce my own product and develop it as a source of supplementary income.", Riziah Kusop, project participant

The participants' progress was not without difficulty. Production had to be balanced with childcare, household responsibilities and varying levels of family support. Some women struggled to maintain consistent product quality, improve packaging or respond to changing customer demand. Others discovered that running even a small home-based business required more discipline, planning and emotional resilience than they had expected. These challenges reflected the reality of grassroots entrepreneurship, where progress is rarely immediate and a temporary decline in sales can directly affect a family's motivation and available capital.

Good Shepherd Services responded through regular coaching, close monitoring and Monitoring Progress Meetings. Participants reviewed their production, financial records and use of seed funding with the project team. They received step-by-step guidance in costing, production planning, hygiene, packaging and marketing until they became more confident in making business decisions. This continuing relationship was essential because one-time training would not have been sufficient to help participants respond to the challenges that emerged after they began selling.

Financial monitoring showed that most participants reinvested part of their earnings in raw materials and packaging. This behaviour indicated that they were beginning to distinguish business capital from household spending and understand the importance of maintaining production. Across the 10 participants, recorded income levels increased by approximately 1.5 to 2.67 times compared with their respective baselines.

The absolute earnings remained modest, but the improvement reflected stronger product management, customer engagement and market awareness.

The project's deeper impact was visible in the participants' changing confidence. Earning even a modest amount allowed women to contribute to household expenses and strengthened their sense of independence. Participants also formed a peer-support network through which they could exchange ideas, discuss challenges and encourage one another. *The women were building more than individual businesses; they were creating a community in which progress was supported rather than pursued alone.*

The initiative contributes directly to SDG 1: No Poverty by supporting additional income among women from low-income households. It advances SDG 5: Gender Equality by strengthening women's skills, confidence and economic decision-making, while supporting SDG 8: Decent Work and Economic Growth through home-based microenterprise. Its practical training contributes to SDG 4: Quality Education, and the peer-support and mentoring model reflects SDG 17: Partnerships for the Goals.

Several lessons emerged from the project. A market-ready product is not created through one training session; it requires repeated testing, customer feedback and ongoing refinement. Mentorship is particularly important during the transition from learning to actual business operations. Participants also enter entrepreneurship with different levels of readiness, family support and available time. Future programmes should therefore use careful participant profiling and provide differentiated guidance rather than expecting every woman to progress at the same speed or follow the same business pathway.

Ultimately, empowerment in Likas was not defined solely by monthly sales. Income ranging from RM50 to RM600 made an important difference, but the project's broader value could be seen in women who gained confidence, improved their decision-making and began viewing their

existing skills as economic assets. Juilih expanded beyond seasonal cookies, while Riziah transformed a snack once produced for her household into a product sold to customers. *Through practical training, patient mentorship and community support, 10 women began turning everyday skills into stronger livelihoods, and personal resilience into a foundation for more resilient families and cities.*











FROM HARVEST TO HIGH VALUE: THE TANIKU TRANSFORMATION OF KAMPUNG KUYUNGON

Organization: Tumparak Sdn Bhd
Parliament: P.183 Tambunan
Project Title: Social Lab: TaniKu
Funding Allocation: RM40,000

Located within the catchment area of the Crocker Range, Kampung Kuyungon in Tambunan is surrounded by fertile land and rich natural resources. For generations, members of the Dusun community have relied on small-scale agriculture to produce food and support their families. Yet an abundant harvest did not always translate into a stable income. Farmers commonly sold vegetables in their raw form at low margins, while surplus produce could spoil before reaching customers. Limited market access, seasonal price fluctuations and the absence of local processing facilities prevented villagers from obtaining the full economic value of what they cultivated.

Recognising this gap, Tumparak Sdn. Bhd. introduced Social Lab: TaniKu (Y25-KK056) to help the community progress from primary production into value-added agribusiness. The initiative involved 10 Dusun participants, seven women and three men between the ages of 30 and 60. It built upon earlier project phases that established 20 organic-production greenhouses and shifted the focus towards downstream processing, product development and entrepreneurship. The objective was to equip participants with the machinery, technical knowledge and business skills required to transform fresh produce into products with a longer shelf life and greater market potential.

The project supplied a seed-funding package to establish a functional processing system within the village. Equipment included food dehydrators, vegetable slicers, grinders, heavy-duty blenders, vacuum sealers and heat-resistant bottles. A shared camera and laptop with design software were also provided to support product photography, branding and digital marketing. Participants cleaned and converted a room in the village hall into a temporary processing hub where equipment could be stored and production activities coordinated. *The new space became a bridge between the farm and the market, a place where fresh harvests could be transformed into more durable and valuable products.*

Over four months, participants completed 14 core activities based on practical learning. They were introduced to drying, grinding, fermentation, packaging and basic food-safety practices. Instead of discussing processing only in theory, they completed actual production cycles and observed how moisture, temperature, preparation and storage affected the final product. Through this process, the group developed value-added products such as vegetable powders and specialised pickles.

Processing gave participants a strategy for managing surplus produce. Vegetables that might have deteriorated before being sold could be dried or preserved, extending their usable period and creating products that could be marketed beyond the immediate harvesting season. This approach reduced post-harvest losses and helped farmers consider income opportunities throughout the year rather than depending only on fresh-produce sales. However, commercial expansion will require consistent recipes, food-safety controls, appropriate labelling and compliance with relevant regulatory requirements.

Entrepreneurship and digital literacy were introduced alongside technical processing. Participants learned basic costing, systematic pricing, branding, label development and social-media promotion. Online sales simulations allowed them to practise presenting products, responding to customer questions and communicating the value of locally processed food. These

activities encouraged a shift in perspective. *Agriculture was no longer viewed only as cultivating and harvesting crops; it became a complete business journey involving processing, presentation, pricing and customer engagement.*

Implementation required flexibility. Certain ingredients, particularly pineapples intended for processing, were not always available in sufficient quantities. Instead of abandoning the product idea, the project encouraged other villagers to consider expanding pineapple cultivation. This response created the potential for a wider local supply network in which farmers outside the core participant group could also benefit. The experience highlighted an important lesson in agribusiness: downstream processing can succeed only when raw-material production is reliable and coordinated.

Participant commitment also varied because some individuals had family or personal responsibilities that limited their attendance. To maintain momentum, the project engaged committed members from earlier phases who already possessed relevant farming experience. Their involvement supported continuity and strengthened peer learning between previous and current participants. Preparing the village hall as a temporary processing area further demonstrated the group's ability to use available community assets rather than wait for ideal facilities.

As their skills developed, participants gained a clearer understanding of sustainable cultivation, natural pest-management practices and the economic role of downstream processing. The project also nurtured collaboration and social-enterprise values. Equipment was shared, production required coordinated schedules and decisions had to consider the interests of the wider group. The earlier greenhouse initiative had already attracted visitors, creating possible links between agriculture, processed products and community-based ecotourism.

Although no verified sales or income figures were reported during this phase, the project established important foundations for future

commercial activity. Participants developed products, gained experience using processing machinery and learned how to prepare labels and communicate through digital platforms. The temporary hub and shared equipment created practical community assets that can continue supporting product testing and small-scale production after the formal programme.

The initiative contributes directly to SDG 8: Decent Work and Economic Growth by strengthening rural entrepreneurship and value-added agricultural skills. It supports SDG 2: Zero Hunger through sustainable local food production and SDG 12: Responsible Consumption and Production by reducing post-harvest losses and improving the use of surplus crops. Training and digital-literacy development contribute to SDG 4: Quality Education, while the participation of seven women supports SDG 5: Gender Equality.

Social Lab: TaniKu demonstrates that rural agricultural development should not end when crops are harvested. Farmers can capture greater value when they possess the knowledge and equipment to preserve, process, brand and market what they grow. The project also shows that technology becomes meaningful only when participants receive continuous mentoring and opportunities to practise within real production settings.

Moving forward, the community will need a reliable supply of raw materials, stronger food-safety procedures, appropriate certification and improved access to markets. A permanent processing facility could further strengthen production consistency and compliance. Digital promotion should also be supported by clear product positioning, production records and customer feedback. *In Kampung Kuyungon, the harvest is no longer seen as the end of the farming journey, it is the beginning of a new path towards innovation, community enterprise and greater rural resilience.*


SUSTAINABLE FARMING
PERMALAB




COMMUNITY


FILIA



GROWING SUSTAINABLE LIVELIHOODS THROUGH CILI KULAI FERTIGATION FARMING

Organization: Borneo Skill Experts
Parliament: P.179 Ranau
Project Title: Projek Peningkatan Pendapatan Melalui Tanaman Fertigasi di Kampung Lohan
Funding Allocation: RM40,000
Email: borneoskill.official@gmail.com

In Kampung Lohan, modern fertigation is helping small-scale farmers cultivate more than Cili Kulai, it is strengthening their confidence in agriculture as a viable livelihood. During Phase 1 of the project, participants produced 1,464 kilograms of chillies and generated RM14,640 in sales. This achievement demonstrated the potential of a systematic fertigation system to improve production and rural income. Encouraged by these results, Phase 2 of the Projek Peningkatan Pendapatan Melalui Tanaman Fertigasi di Kampung Lohan (Y25-KK014) was introduced to expand production, strengthen participants' technical abilities and improve daily farm management.

Traditional chilli cultivation can be affected by inefficient irrigation, rising input costs, pest and disease outbreaks and unpredictable weather. These challenges reduce crop quality and make yields difficult to predict. Fertigation offers a more controlled approach by delivering water and dissolved nutrients directly to each plant through an irrigation network. However, the system still requires technical knowledge, regular monitoring and careful maintenance. Phase 2 therefore focused not only on adding infrastructure but also on helping participants understand how to manage

the expanded system responsibly.

The project provided 1,000 polybags, fresh cocopeat and upgraded irrigation pipes. These improvements increased the farm's planting capacity and enabled water and nutrients to be distributed more efficiently. A total of 10 participants took part in the initiative and received continuous practical guidance. They prepared seedlings, filled and arranged polybags, installed the irrigation lines and checked the system for uneven flow or blockages. *Every additional polybag represented greater production potential, but it also required greater discipline and shared responsibility.*

Between June and August, participants attended advanced training in fertigation management, including nutrient preparation, the use of AB fertiliser, pest and disease management and overall farm planning. They learned that applying more fertiliser does not automatically improve plant growth; the concentration and timing must suit the crop's developmental stage. Continuous mentoring from APPGM-SDG and Borneo Skill Experts helped participants understand the relationship between irrigation, nutrients, root health and fruit production.

Hands-on learning remained central throughout the planting cycle. Participants monitored plant development, maintained the irrigation system and observed early signs of pest or disease problems. Trainers guided them in distinguishing among different types of crop damage before selecting a response. This was important because incorrect pesticide selection can waste money, delay crop recovery, harm beneficial organisms and create food-safety risks. Participants were encouraged to prioritise accurate identification, integrated pest-management practices and the careful use of registered products according to label instructions, including the required pre-harvest intervals.

As the chilli plants developed and began producing heavier fruit, support stakes and raffia strings were installed to prevent branches from bending

or breaking. This activity showed that successful fertigation farming involves more than supplying water and nutrients. Plant structure, pruning, hygiene and regular field observation also influence crop health and harvest quality. Through repeated practice, participants became more confident in recognising when the plants required intervention.

Weather conditions created several implementation challenges. Rain and changing temperatures affected crop development, increased disease pressure and delayed parts of the irrigation-system installation. Participants had to monitor the farm more frequently and respond quickly when symptoms appeared. WhatsApp discussions and online mentoring allowed them to share photographs, report problems and receive guidance from trainers between field sessions. This communication system strengthened group coordination and helped participants avoid making decisions in isolation.

The first harvest in October produced 219 kilograms of high-quality Cili Kulai. Although the sales value for this harvest was not reported, the result was encouraging because participants had worked through nutrient-management difficulties, pest pressures and unpredictable weather. *The first baskets of chillies represented more than a production figure; they were evidence that the participants could apply technical knowledge to overcome real farming challenges.*

Beyond the harvest, the project strengthened teamwork and shared accountability. Participants divided maintenance responsibilities, supported one another during demanding periods and became more proactive in monitoring crop conditions. Their growing knowledge of fertiliser preparation, pest management and irrigation maintenance reduced dependence on constant external instruction. The group's experience showed that modern farming technology is most effective when participants understand the system and cooperate consistently.

The initiative contributes directly to SDG 1: No Poverty and SDG 8: Decent

Work and Economic Growth by strengthening potential income opportunities for small-scale farmers. It supports SDG 2: Zero Hunger through local food production and SDG 12: Responsible Consumption and Production through more targeted water and nutrient delivery. Its practical training contributes to SDG 4: Quality Education, while adaptive management in response to changing weather supports SDG 13: Climate Action.

The project demonstrated that fertigation can reduce some of the inefficiencies associated with conventional cultivation, but it does not eliminate agricultural risk. Long-term success will depend on consistent maintenance, responsible input use, accurate records, reliable market access and the ability to respond to changing environmental conditions. Future monitoring should compare production costs, yields, crop losses and net income across planting cycles to determine the system's financial sustainability.

For the 10 participants in Kampung Lohan, Phase 2 represented a progression from initial success towards more organised agricultural management. With upgraded infrastructure, advanced training and stronger cooperation, they are better prepared to expand their farming activities and improve production over time. *The Cili Kulai harvest is growing alongside something equally valuable, a community of farmers increasingly confident in their knowledge, technology and collective ability to build more resilient livelihoods.*









EMPOWERING WOMEN THROUGH ROSELLE CULTIVATION AND INNOVATION

Organization: Aurora Mutiara Enterprise
Parliament: P.174 Penampang
Project Title: Empowering Communities through Roselle Cultivation and Innovation
Funding Allocation: RM40,000

In Kg. Timpoluon Sokid and Kg. Raganan Mongkusilad, Penampang, roselle was once cultivated mainly for household use or occasional local sales. Although the crop could be processed into a wide range of products, most community members sold it in its raw form or used it within their homes. Women from B40 households, single mothers and homemakers had limited access to technical farming guidance, entrepreneurship training and wider markets. As a result, the commercial value of roselle remained largely unexplored, and opportunities for generating a more consistent income were limited.

Recognising this potential, Aurora Mutiara Enterprise introduced the Memperkasakan Komuniti Melalui Penanaman dan Inovasi Roselle project. The initiative engaged 10 Dusun women between the ages of 27 and 58 and connected sustainable cultivation with food processing, entrepreneurship and digital marketing. Rather than focusing only on increasing the volume of roselle harvested, the project aimed to help participants capture more value from every crop by transforming it into products that could be stored, branded and marketed throughout the year.

During Phase 1, participants established community roselle gardens and received practical training in composting, fertiliser preparation and lower-

impact pest-management techniques. With guidance from the Penampang Agriculture Department, they learned how to prepare planting areas, maintain crop health and manage common cultivation problems. Locally available materials, including papaya leaves, were explored as part of botanical pest-management practices. These methods encouraged participants to reduce unnecessary reliance on costly synthetic inputs while developing a stronger understanding of soil care and environmentally responsible farming. Products should only be marketed as "organic," however, where the relevant production and certification requirements are met.

As the plants matured, the participants began seeing roselle differently. The calyces were no longer viewed only as a fresh agricultural harvest; they became raw materials for product innovation. Training introduced the women to roselle tea, cordial, halwa, pudding, ice cream and fermented beverages. Initial products were presented with simple packaging and labels at local exhibitions and community launching events. Many sold out quickly, giving participants early evidence of customer interest. *Every sold product strengthened their belief that a familiar village crop could become the foundation of a community enterprise.*

Phase 2 focused on improving product quality, strengthening entrepreneurial capacity and reducing dependence on seasonal raw-produce sales. Participants understood that fresh roselle would not provide consistent income throughout the year if cultivation and demand remained seasonal. Processing allowed them to extend shelf life and diversify their product range. Between May and July 2025, refresher sessions gave participants an opportunity to discuss cultivation problems, exchange production experiences and refine their methods collectively.

The journey was affected by difficult environmental and personal circumstances. Heavy rain, flooding and landslides interrupted work at the community gardens and delayed planned activities. Festive periods affected attendance, while some participants experienced the loss of family

members during implementation. Sugar shortages disrupted processing schedules, and delayed fund disbursements affected the timing of production and marketing activities. These challenges demonstrated how community enterprises are influenced not only by technical plans but also by weather, supply chains, family responsibilities and participants' well-being.

The group responded with flexibility and mutual support. Activities were rescheduled according to weather and participants' availability, while regular communication helped maintain continuity. Women supported one another during personal difficulties and shared responsibilities when some members could not attend. The strength of the project did not come only from the roselle gardens; it came from participants who continued caring for the enterprise and one another through periods of uncertainty.

One of the project's most distinctive components was the introduction of digital entrepreneurship. Participants used Artificial Intelligence tools to help develop promotional posters, product ideas and jingles. TikTok Live sessions introduced them to online product presentation, customer interaction and real-time promotion. For women with limited previous exposure to digital business, speaking on camera and using AI-assisted tools required confidence. Repeated practice helped them recognise that products created in a rural village could be introduced to customers beyond Penampang through digital platforms.

Financial training supported this transition by introducing basic costing and pricing. Participants learned that sales revenue is not the same as profit and that prices must account for ingredients, packaging, utilities, transport and labour. This knowledge helped them consider whether a product was financially viable before expanding production. Digital marketing could attract customers, but sustainable income would depend on consistent quality, reliable supply and accurate financial records.

The initiative contributes directly to SDG 1: No Poverty by developing

potential income opportunities for women from lower-income households. It advances SDG 5: Gender Equality by strengthening women's economic participation and confidence and supports SDG 8: Decent Work and Economic Growth through community entrepreneurship. Sustainable cultivation and the processing of seasonal harvests contribute to SDG 12: Responsible Consumption and Production, while digital and entrepreneurship training support SDG 4: Quality Education.

The project successfully changed how participants viewed both roselle and their own abilities. They learned to manage crops, develop products, calculate prices and promote their work through modern digital tools. Although verified sales and net-income figures were not reported, positive customer responses and sold-out products during exhibitions provided encouraging early market feedback. Future monitoring should document production costs, sales volumes, profit and repeat customers to determine whether the enterprise creates sustained household income.

Moving forward, the group will need to strengthen product standardisation, food-safety procedures, packaging, labelling and regulatory compliance. Processed foods intended for wider commercial sale may require suitable registration or food-safety certification. Fermented or alcoholic roselle beverages also require careful consideration of licensing, labelling and target-market requirements. A shared production space, reliable ingredient supply and stronger market partnerships could further improve consistency and scalability.

The women of Penampang began with a crop they already knew, but through training and innovation, they discovered new possibilities within it. By connecting community farming with value-added products, AI-assisted branding and digital marketing, they are cultivating more than roselle, they are growing confidence, economic opportunity and a more resilient rural future.










DRIED
LEMON
SLICES

SWEETENING COMMUNITY LIVELIHOODS: THE KELULUT HONEY INNOVATION OF KG. PEPOLOR

Organization: HJAWANG RESOURCES
Parliament: P.178 Sipitang
Project Title: Trigona Beestari Fasa 2
Funding Allocation: RM40,000
Email: hjawang.hq@gmail.com

In Kg. Pepolor, Sipitang, the gentle activity of kelulut, or stingless bees, is creating new possibilities for the community. Demand for locally produced honey and natural products has opened opportunities for small-scale farmers to diversify their livelihoods. However, operating a few kelulut nests through traditional methods does not automatically lead to a sustainable enterprise. Farmers require suitable infrastructure, colony-management knowledge, consistent product quality, attractive branding and access to customers. Without these elements, the commercial potential of kelulut honey and related products can remain limited.

The Trigona Beestari Phase 2 – Kg. Pepolor Community Honey Bee Garden project (Y25-KK082) was introduced to strengthen the community's existing foundation. During Phase 1, residents successfully established 40 kelulut nest units and formed an active network of local beekeepers. Phase 2 expanded this work through structured technical training, entrepreneurship development, product innovation and shared processing facilities. The initiative aimed to help participants move from small-scale honey harvesting towards a more coordinated community enterprise.

A major development was the construction of a 15-by-20-foot community processing workshop. The facility created a dedicated space for honey

extraction, processing, packaging and storage. Previously, participants had limited access to suitable shared facilities, making it difficult to maintain organised production. The new workshop allowed equipment and products to be managed in one place while strengthening quality-control practices. *The building represented more than physical infrastructure; it gave the community a shared home for developing its honey enterprise.*

Participants attended practical training in colony management, honey harvesting, machine operation, quality control, packaging, branding and digital marketing. They learned how regular observation of the nests could help identify changes in colony condition and productivity. Proper harvesting and handling were emphasised to protect product quality, while packaging and marketing sessions encouraged participants to consider how customers perceived their products. Through repeated practice, community members developed greater confidence in managing both the agricultural and commercial aspects of kelulut farming.

The initiative introduced the PEPOLOR community brand, providing the products with a clearer identity connected to the village. Rather than relying entirely on raw honey sales, participants also explored value-added products such as kelulut honey ice cream and honey-based soap. These innovations created opportunities to reach different customer groups and increase the value generated from local production. However, continued product development will require consistent formulations, food-safety practices, appropriate labelling and relevant regulatory compliance, particularly for processed food and personal-care products.

Community participation extended beyond training sessions. Residents worked together through gotong-royong activities to clean the site, install electrical facilities, construct shade-netting systems and support honey harvesting and nest installation. These tasks improved the physical condition of the kelulut garden and workshop while strengthening communication and shared responsibility. Participants learned that the success of a community enterprise depends not only on individual skill but

also on the willingness of members to maintain facilities and solve problems collectively.

The project also increased the visibility of Trigona Beestari through stakeholder visits and participation in external programmes. These engagements allowed participants to meet potential collaborators, learn from other entrepreneurs and introduce PEPOLOR products beyond the village. Wider exposure helped residents recognise that their honey initiative could become part of a larger network involving tourism, agriculture, retail and community development.

Muris bin Baguring reflected on the technical knowledge gained through the programme:

"Melalui latihan dan tunjuk ajar yang diberikan, kami lebih memahami teknik penjagaan sarang, penuaian madu serta langkah-langkah untuk menambah hasil pengeluaran."

"Through the training and guidance provided, we now have a better understanding of nest-management techniques, honey harvesting and the steps required to increase production."

For Reiniah binti Jamat, the value of the project extended beyond individual income:

"Kami berasa bangga menjadi sebahagian daripada projek ini kerana ia memberi manfaat jangka panjang kepada ekonomi dan pembangunan komuniti setempat."

"We are proud to be part of this project because it provides long-term benefits for the local economy and the development of our community."

Implementation was affected by prolonged rain and humid conditions, which disrupted honey harvesting, site visits and the installation of kelulut

logs. Financial limitations affected some planned activities, while participants' work and family commitments occasionally slowed coordination. Some training locations also lacked complete facilities, requiring facilitators to modify demonstrations according to the available conditions. The project team responded by rescheduling outdoor activities, maintaining close communication and adapting its training methods. Participants supported one another during difficult periods, demonstrating growing unity within the beekeeping network.

The project produced encouraging early economic outcomes. Participants reported earning approximately RM150 to RM300 in supplementary income from honey and downstream product sales. The amounts remained modest and varied according to production and market participation, but they showed that kelulut farming could contribute to household income. The processing workshop, shared brand and product innovations also established assets that could support stronger future earnings. *Every jar carrying the PEPOLOR name represented not only honey but also the identity and collective effort of Kg. Pepolor.*

The initiative contributes directly to SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth through rural entrepreneurship and supplementary income. It supports SDG 12: Responsible Consumption and Production through improved processing and product development. Because stingless bees contribute to plant pollination, responsible colony management can also support SDG 15: Life on Land. Collaboration among participants, the Solution Provider, agencies and external stakeholders reflects SDG 17: Partnerships for the Goals.

The Trigona Beestari Phase 2 project demonstrates that rural enterprise development requires more than providing agricultural assets. It depends on technical knowledge, suitable infrastructure, market identity and sustained community cooperation. Phase 1 established the colonies; Phase 2 helped the community develop the systems required to process, package and promote their products more professionally.

Moving forward, the initiative will benefit from improved weather-resilient facilities, consistent production records, stronger digital marketing and wider market linkages. Clear quality standards and regulatory guidance will also be important as participants expand into value-added products. *Through 40 kelulut nests, one shared workshop and a community brand rooted in Kg. Pepolor, participants are turning a traditional rural activity into a sweeter pathway towards collective resilience and economic independence.*









ROOTED IN RESILIENCE: A COMMUNITY-LED PATH TO SUSTAINABLE INCOME

Organization: Jawatankuasa Pengurusan Masjid Nurul Ashikin
Parliament: P.196 Stampin
Project Title: Kampung Lidah Tanah – Ekonomi Lestari
Funding Allocation: RM45,000
Email: bakihjleh@gmail.com

For two years, Kampung Lidah Tanah in Bau faced an unusual obstacle to community development: the absence of an officially appointed Ketua Kampung. Without formal village leadership, efforts to establish a functioning Jawatankuasa Kemajuan dan Keselamatan Kampung were delayed, limiting access to government programmes and development funding. However, the community did not allow this administrative gap to bring local initiatives to a standstill. The committee of Masjid Nurul Asyikin, led by Baki bin Haji Leh, stepped forward to coordinate educational and welfare activities, although its work remained dependent on limited support from Majlis Islam and Jabatan Agama Islam Sarawak.

Within this context, the APPGM-SDG microgrant provided more than financial support. It created an opportunity for the community to organise around the economic challenges affecting its residents. Widows, single mothers and other households with limited income often had few opportunities to access practical skills training or develop independent livelihoods. In response, the Kampung Lidah Tanah – Ekonomi Lestari project (Y25-SP095) introduced two community enterprises: fresh noodle production and an integrated fish-farming and hydroponics initiative.

The four-month project engaged 19 participants, with 10 joining the noodle-production group and nine participating in aquaculture and hydroponics. This two-part structure allowed residents to contribute according to their interests and abilities. Those with food-preparation experience could strengthen their production and business skills, while participants interested in agriculture could learn how to manage fish and vegetables within a shared community system. *The project did not impose one livelihood pathway on the entire village; it created different entry points towards a common goal of greater economic resilience.*

The noodle-production group received practical training in dough preparation, machine operation, kitchen management, food hygiene, quality assessment, packaging and marketing. Participants learned that producing noodles for sale required greater consistency than preparing food for household consumption. Ingredients had to be measured accurately, equipment cleaned properly and finished products packaged in a way that protected quality. Through repeated production, the group established a steady routine and began producing approximately six to 10 kilograms of noodles each week.

Orders gradually arrived from friends, neighbours and residents across the village. This early demand gave participants confidence that their product could develop beyond a training exercise. Maintaining production, however, required flexibility. Family responsibilities sometimes conflicted with the work schedule, while raw materials were used more quickly than expected. The group responded by moving production to more manageable morning sessions and exploring bulk purchasing to reduce costs and avoid supply interruptions.

At the shared agricultural site, fish tanks and a hydroponic system were installed for communal management. Participants received theoretical and hands-on training in water-quality monitoring, feeding, fish care, seedling preparation, nutrient management and crop maintenance. The tanks were stocked with marble goby *(ikan betutu)*, catfish *(ikan baung)* and tilapia.

The hydroponic system contained 180 seedlings, including pak choy, water spinach and mustard greens. Participants worked according to a two-day rotation, ensuring that the fish and vegetables received regular attention.

The aquaculture component experienced a serious setback when an electricity disruption stopped the water pumps and reduced oxygen levels in the tanks. More than 40 fish were lost, demonstrating how quickly a technical failure could affect a small farming operation. Instead of abandoning the activity, the Project Manager revised the budget to include a solar-powered backup system. The additional system allowed water circulation and aeration to continue during power interruptions. The loss was discouraging, but it became a practical lesson in risk management and the importance of backup infrastructure.

The hydroponic system produced encouraging early results. During the reported harvesting and monitoring period, participants completed eight harvest cycles, with peak production reaching 44 packs of pak choy. The first crop was sold within approximately three weeks of planting. Demand came from households in the village and nearby burger stalls, showing that small-scale vegetable production could find a market when customers were located close to the project site. The rapid movement of fresh produce also reduced the need for long-distance transport and storage.

The project's personal impact can be seen in the experience of Beriah Shahrom, a 63-year-old former factory worker with a long-standing interest in cooking and gardening. Before joining the initiative, she cultivated plants on a small scale behind her home. Through the community hydroponics system, she learned seedling propagation, nutrient preparation and environmentally responsible pest-management practices. The project also gave her a regular opportunity to interact with neighbours and contribute to a shared activity. For Beriah, the garden supported not only practical learning but also connection, purpose and emotional well-being.

Siti Khadijah binti Kamil, a 33-year-old homemaker who had previously sold

homemade baked goods, found a different opportunity through noodle production. Her existing food experience gave her a foundation, but the project introduced her to noodle-making machinery, systematic production and improved packaging. She strengthened her understanding of food hygiene and learned how consistency affected customer confidence. As her skills developed, so did her belief that she could manage a more organised home-based food enterprise.

Although complete sales and net-income figures were not reported, the project produced tangible evidence of market activity. Noodles were ordered regularly, vegetables were purchased by residents and nearby food operators, and participants acquired the skills to continue production. Future monitoring should record ingredient costs, utilities, equipment maintenance, weekly sales and profit distribution to determine whether both enterprises are financially sustainable.

The initiative contributes directly to SDG 1: No Poverty by creating livelihood opportunities for financially vulnerable households. It supports SDG 2: Zero Hunger through fish and vegetable production and SDG 8: Decent Work and Economic Growth through food processing and community enterprise. Practical training advances SDG 4: Quality Education, while the shared management of facilities contributes to SDG 11: Sustainable Cities and Communities.

Kampung Lidah Tanah's experience demonstrates that formal leadership gaps do not eliminate a community's ability to organise. Through the mosque committee, shared facilities and collective participation, residents created practical pathways for earning, producing food and supporting one another. The initiative also revealed that community enterprises require more than equipment: they need flexible schedules, operating procedures, financial records and contingency plans.

In Kampung Lidah Tanah, resilience took several forms, the hum of a noodle-making machine, vegetables growing in 180 hydroponic spaces and pumps

protected by a new backup system. Together, these small developments showed how a community could create forward movement even when formal structures were temporarily absent.











CRAFTING LIVELIHOODS, PRESERVING HERITAGE

Organization: Sarawak Dayak Iban Association (SADIA)
Parliament: P.203 Lubok Antu
Project Title: Skill for Livelihood: Traditional Craft Training Project
Funding Allocation: RM30,000
Email: ruekeithjampong@gmail.com

In Langkang Ili, Engkilili, traditional weaving and beadwork carry stories that have been passed from one generation to another. These crafts are more than decorative objects; their patterns, techniques and uses reflect Iban identity, knowledge and cultural memory. Yet as fewer people learn and practise them, valuable traditions risk gradually disappearing. At the same time, older persons and families from low-income households often have limited access to stable livelihood opportunities. Recognising that cultural preservation and economic empowerment could support one another, the Sarawak Dayak Iban Association introduced the Skill for Livelihood: Traditional Craft Training Project (Y25-SP049).

Led by Project Manager Ruekeith Jampong, the three-month initiative brought together 13 participants, comprising young people and older villagers. Through 12 structured sessions, experienced artisans guided them in weaving, beadwork and the creation of traditional Iban accessories. Some participants were learning these techniques formally for the first time, while others were reconnecting with practices they had not used for many years. *The training space became a meeting point between generations, where cultural knowledge could be remembered, shared and carried forward.*

The first month focused on traditional weaving. Participants were introduced to the history and cultural significance of the craft before learning about the materials, tools and foundational techniques involved. At first, many worked slowly as they attempted basic patterns and learned to maintain the correct tension. With repeated practice and individual guidance, their movements became more confident and their designs more consistent. By the end of the month, each participant had produced a small woven piece and shared it during a group-review session.

Beadwork became the focus of the second month. Participants explored the meanings and visual identities associated with traditional Iban motifs before learning how to arrange beads and apply them to fabric. They progressed from simple arrangements to more detailed and colourful patterns. The sessions became lively spaces for peer learning, with participants exchanging ideas and assisting one another when designs became difficult. Each participant eventually completed a personal beadwork item and presented it proudly to the group. *Every finished pattern demonstrated not only technical progress but also the survival of cultural knowledge through shared practice.*

During the final month, participants created the Tangu Iban, a traditional beaded collar worn as part of *Ngepan*, the ceremonial attire of Iban women. They learned about its cultural importance, correct measurements and material preparation before progressing to cutting, stitching and decoration. Creating a Tangu required patience and precision, particularly when aligning detailed patterns and embellishments. Completing these pieces became one of the programme's proudest moments and allowed participants to demonstrate how much their abilities had developed.

The project also introduced entrepreneurship and basic financial management. Participants learned how material costs, time and craftsmanship should be considered when pricing a product. They explored promotion through social media, community markets and exhibitions and practised maintaining simple records of income,

expenditure and savings. Discussions about collective savings and cooperative-style support encouraged them to consider how they might purchase materials, coordinate production and market their crafts together after the programme.

Turning these abilities into reliable income nevertheless presented practical challenges. Many participants were older and experienced reduced eyesight, making detailed weaving and beadwork difficult. Reading glasses and magnifying tools were provided, while trainers adapted sessions to suit the participants' pace and comfort. Some older participants were also unfamiliar with digital platforms, limiting their ability to market products online. Younger participants and community volunteers therefore served as "digital helpers," supporting product photography, online promotion and communication with prospective customers.

The community's distance from town created another barrier. Without private vehicles or public transportation, participants could not travel regularly to markets, while hiring vans would reduce their earnings. Instead of depending on daily sales, the project explored event-based opportunities through rural bazaars, community programmes and exhibitions. Potential collaboration with NGOs, event organisers and the Sarawak Craft Council could help participants reach customers while reducing the burden of individual travel. Future development could also include shared transport, collective delivery and online-order arrangements.

Among the participants were Taka Utoi and his son, Felixious. Taka was undergoing the challenges associated with cancer, while Felixious had paused his studies to care for his father. They joined the programme together with a desire to acquire practical abilities that could potentially support their household. Through patient training, both developed confidence in handicraft production and began recognising its income-generating possibilities. Their shared learning journey brought moments of purpose and connection during a difficult period in their lives.

For Taka and Felixious, every completed craft represented more than a newly acquired skill. It reflected resilience, care and the possibility of creating something valuable together despite personal hardship.

The initiative contributes directly to SDG 8: Decent Work and Economic Growth by developing potential livelihood opportunities through traditional crafts. It advances SDG 11: Sustainable Cities and Communities by preserving cultural heritage and supports SDG 10: Reduced Inequalities through the inclusion of older and low-income participants. Intergenerational learning contributes to SDG 4: Quality Education, while collaboration with artisans, community volunteers and potential market partners reflects SDG 17: Partnerships for the Goals.

Although verified sales and income figures were not reported during the programme, the project established an important foundation. Participants completed marketable craft items, improved their technical abilities and gained basic knowledge of pricing and promotion. Future monitoring should document production time, material costs, sales and customer demand to determine which products provide viable returns. Product stories and information about the cultural meanings of motifs should also be developed carefully, with community consent, to ensure that commercialisation respects Iban cultural ownership.

The project demonstrated that preserving heritage requires more than displaying completed crafts. Traditional knowledge survives when people continue learning, practising and teaching it. By bringing younger and older participants together, the programme strengthened the possibility that weaving, beadwork and Tangu-making will continue into another generation.

In Langkang Ili, every woven strand and carefully placed bead connects the community's past with its future. Through skill, patience and shared learning, participants are preserving their heritage while crafting new possibilities for resilience, dignity and sustainable livelihoods.









WHISKING UP OPPORTUNITIES: A JOURNEY INTO BAKING AND BUSINESS

Organization: Kuching Society for Community Leadership and Economic Development
Parliament: P.195 Bandar Kuching
Project Title: Fast Track Baking & Pastry Start Up Training Program
Funding Allocation: RM30,000
Email: teexing@gmail.com

For many school leavers and young people, academic achievement is often treated as the main route to a secure future. Those who learn more effectively through practical experience may find themselves with limited employment choices, even when they possess creativity, determination and strong hands-on abilities. Others may already enjoy baking at home but lack the technical training, business knowledge and confidence required to sell their products. Recognising this gap, the Kuching Society for Community Leadership and Economic Development introduced the **Fast Track Baking & Pastry Start-Up Training Program** (Y25-SP030).

Led by Project Manager and trainer **Tee Sing Chee**, the four-month initiative engaged **10 participants from Kuching**. Across 12 structured sessions, the programme transformed the kitchen into their primary learning space. Participants learned mainly through demonstrations, repeated practice and direct feedback rather than theory alone. This approach allowed them to observe how small differences in measurement, temperature, timing and technique could affect the texture, appearance and taste of a finished product.

The participants learned to prepare cookies, quick breads, cakes, pastries, sweet buns and pizza. At the beginning, some approached unfamiliar equipment and recipes cautiously. As the sessions progressed, repeated practice helped them become more comfortable weighing ingredients, preparing dough, controlling baking conditions and presenting their completed products. Mistakes were treated as part of the learning process, giving participants opportunities to understand what had gone wrong and improve during the next attempt. *With every successful batch, hesitation gradually gave way to skill and confidence.*

Technical ability was only one part of the programme. Participants were also introduced to food photography, social-media promotion, bookkeeping and basic business registration. They learned that producing an appealing pastry does not automatically create a viable enterprise. A baker must understand ingredient costs, set an appropriate price, maintain hygiene, present products attractively and communicate reliably with customers. These lessons helped participants view baking as a potential livelihood rather than only a personal interest.

Choosing what to sell became one of the first entrepreneurial challenges. Some participants wanted to offer too many products, while others were uncertain about which items customers might purchase. They were encouraged to begin with a smaller selection, practise consistently and seek feedback from family members and friends. Sharing photographs online helped them become more comfortable presenting their work, while early customer responses guided improvements in taste, portion size, packaging and pricing.

Friends and relatives became the participants' first customers and informal product reviewers. Although selling within familiar circles felt safer, accepting payment created a new level of responsibility. Participants had to complete orders on time, maintain consistent quality and respond professionally to feedback. By setting small and achievable sales goals, they gradually developed a clearer sense of direction. *The first order was*

not simply a sale, it was evidence that someone valued a skill they had worked hard to develop.

For Vivian Thian, the programme provided the confidence and technical foundation to begin her own micro-baking activity. By the final month, she had earned approximately RM220 from selling her products. The amount was modest, but it marked an important transition from training to actual entrepreneurship. Vivian had moved beyond practising recipes in class and begun managing customer expectations, production and sales.

Krystal Rudang also applied her learning by accepting occasional baking orders. By the final month of the programme, she had generated approximately RM380. Her experience demonstrated that a microenterprise does not need to begin with a shopfront or large production volume. It can start with a small number of orders, consistent quality and the confidence to promote a product.

The programme's impact extended beyond the income earned by Vivian and Krystal. Participants became more willing to experiment, communicate and work together. They learned that progress in the food sector requires persistence and regular practice. Not every product would succeed immediately, and not every customer would respond in the same way. However, participants developed the resilience to refine their products and continue learning instead of treating early difficulties as failure.

The initiative contributes directly to SDG 4: Quality Education by providing practical and accessible vocational learning. It supports SDG 8: Decent Work and Economic Growth through baking, entrepreneurship and self-employment skills, while contributing to SDG 1: No Poverty through potential supplementary income. Its focus on school leavers and individuals who may not thrive in conventional academic settings also advances SDG 10: Reduced Inequalities.

The programme demonstrated that practical talent can become

economically valuable when it is supported by technical training and business guidance. Nevertheless, long-term sustainability will require more than completing the 12 sessions. Participants will need to maintain food-hygiene standards, calculate net profit accurately, comply with relevant food-business requirements and build repeat customer demand. Continued mentoring could help them refine their menus, improve packaging and establish clearer market identities.

What began with flour, butter and unfamiliar recipes became a pathway towards confidence and possibility. Vivian's RM220 and Krystal's RM380 represented more than early earnings, they showed that with the right guidance, a personal interest could become the first step towards an independent livelihood.

The Fast Track Baking & Pastry Start-Up Training Program ultimately opened doors for participants whose strengths might not always be recognised through conventional educational pathways. It gave them a practical skill, a business foundation and the courage to begin. In Kuching, 10 participants entered the kitchen to learn how to bake; they completed the programme better prepared to shape opportunities of their own.











PLANTING SEEDS, HARVESTING HOPE: STRENGTHENING COMMUNITY LIVELIHOODS THROUGH COFFEE AND FISH FARMING

Organization: Pertubuhan Hak Asasi Orang Asal Sarawak / Society For Rights of Indigenous People of Sarawak (SCRIPS)
Parliament: P.216 Hulu Rajang
Project Title: Penambahbaikan Penternakan Ikan dalam Kolam dan Semaian Kopi Liberika
Funding Allocation: RM40,000
Email: scrips22102012@gmail.com

In Uma' Kenyah Long Bangan, Belaga, Sarawak, agriculture is closely connected to food security, household income and the community's relationship with its ancestral land. Yet producing a stable livelihood in a remote rural environment is not easy. Changing weather, crop diseases, limited market access and temporary migration for employment can disrupt farming activities. Recognising these challenges, the Society for Rights of Indigenous People of Sarawak introduced the Penambahbaikan Penternakan Ikan dalam Kolam dan Semaian Kopi Liberika project (Y25-KK037), led by Project Manager Michael Jok.

The initiative worked with young people, single mothers and persons with disabilities from the Uma' Kenyah community. It built upon lessons from an earlier phase during which participants cultivated, harvested and sold Terung Asam. Although the crop generated sales for several months, unpredictable weather and plant diseases affected production. Rather than treating these difficulties as a failure, participants used the experience to reconsider how short- and long-term agricultural activities could be combined to create greater livelihood resilience.

Phase 2 shifted towards two complementary activities: establishing a Liberica coffee nursery and improving two communal fish ponds. Coffee was selected as a potential long-term crop that could create value beyond one short planting cycle. Fish farming, meanwhile, could contribute food and income within a shorter period. *The project connected two different timelines of hope, the fish ponds offered nearer-term returns, while the coffee seedlings represented an investment in the community's future.*

Approximately 1,000 Liberica coffee seedlings were prepared through the nursery and later distributed to participants for planting on their respective ancestral lands. Participants learned how to prepare the nursery, fill polybags, sow coffee seeds and care for young seedlings. The initiative also encouraged them to cultivate shorter-term crops such as cucumbers and vegetables while waiting for the coffee plants to mature. This intercropping approach could provide food or supplementary income during the years before coffee production begins.

The coffee initiative carried significance beyond future sales. By supporting residents to cultivate their own ancestral land, the project sought to create locally rooted economic opportunities, particularly for younger community members who might otherwise feel compelled to leave in search of work. This did not mean restricting mobility or prescribing how the land should be used; rather, it provided participants with another option for developing livelihoods while maintaining their relationship with the community and territory.

Alongside the nursery, participants repaired and upgraded two existing communal fish ponds. Fish is an important part of the village diet and has steady local demand, making aquaculture relevant to both food security and income generation. Participants helped clear the sites, improve the ponds, purchase fish fry and manage routine feeding and maintenance. Because the ponds were shared, their operation required clear responsibilities and cooperation among group members.

A total of 11 participants took part in the four-month active phase. Practical training covered Liberica coffee propagation, sustainable cultivation, pond management, fish care and basic marketing. Learning took place mainly through collective work rather than classroom instruction. Participants constructed the nursery, prepared the soil, planted seeds, repaired the ponds and cared for the fish. Through these activities, they gradually became more confident in managing farming and aquaculture operations.

The active phase was followed by six months of monitoring. The project team continued checking the coffee seedlings and fish ponds while providing guidance in maintenance and marketing. This extended support was important because coffee seedlings require consistent care before field establishment, while fish production can be affected quickly by feeding, water-quality or pond-management problems. The monitoring period allowed participants to practise with support before taking greater responsibility independently.

Weather frequently interrupted outdoor activities and delayed fieldwork. Some participants also had to leave the village temporarily for employment. Activities were rescheduled according to suitable weather, while close family members occasionally helped maintain responsibilities when participants were absent. This arrangement kept the project moving and reflected the community's shared commitment. However, long-term management will benefit from clearly documented duties so that accountability remains consistent even when members travel.

Four months into the monitoring phase, participants sold approximately 40 kilograms of catfish at RM10 per kilogram, generating RM400 in revenue. The amount represented an early return rather than a complete measure of profitability because feed, fish fry, pond repairs and labour costs also need to be considered. At the same time, the Liberica seedlings continued showing healthy growth, giving participants confidence to prepare for field planting and longer-term cultivation.

Participants also began experimenting with compost and alternative crop-management practices. Producing inputs locally could reduce some dependence on externally purchased fertilisers and strengthen knowledge within the community. These methods will require continued observation to ensure that nutrient supply, soil conditions and plant health remain suitable for coffee and short-term crops.

The initiative contributes directly to SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth by creating potential livelihood opportunities. It supports SDG 2: Zero Hunger through fish and vegetable production and SDG 12: Responsible Consumption and Production through local-input development and integrated farming. Its support for Indigenous community participation and ancestral-land stewardship also contributes to SDG 10: Reduced Inequalities and SDG 15: Life on Land.

The project's full economic impact will take time to emerge. Liberica coffee requires several years before substantial harvesting can begin, making continued seedling survival, field establishment and market planning essential. Future monitoring should record coffee survival rates, pond productivity, production expenses, net income and participant responsibilities. Partnerships with coffee buyers, processors and agricultural agencies could also help the community plan for the period when the trees begin producing.

In Uma' Kenyah Long Bangan, the project is building resilience through both patience and practical action. Fish raised in communal ponds provide nearer-term food and income, while 1,000 coffee seedlings carry the possibility of a livelihood rooted in ancestral land. Together, they represent a community planting today for opportunities that can be harvested over many years











SEEDS OF CHANGE: EMPOWERING KAMPUNG SEBERANG THROUGH MODERN AGRICULTURE

Organization: Multiskills Training Centre
Parliament: P.204 Betong
Project Title: Projek Fertigasi Komuniti Kampung Seberang
Funding Allocation: RM40,000
Email: aabangyusuf@yahoo.com

In Kampung Seberang, Debak, Betong, many households take pride in decorating their compounds with ornamental flowers. These gardens bring colour to the village and reflect residents' interest in cultivation, but they provide little direct support for household food needs or income. Recognising that this existing enthusiasm could be extended towards productive crops, the Projek Fertigasi Komuniti Kampung Seberang (Y25-KK006) encouraged villagers to cultivate chilli, eggplant, vegetables, turmeric and lemongrass alongside their ornamental plants.

The project introduced fertigation as a more systematic way of managing water and nutrients. Its objective was not to replace all traditional farming knowledge but to give participants an additional method that could improve resource management and production consistency. Crops grown around participants' homes could reduce household purchases, while surplus harvests could be sold within the village or at nearby markets. *The initiative began by asking residents to see their home compounds differently, not only as spaces for decoration but also as places capable of producing food and opportunity.*

Led by Project Manager and trainer Abang Yusuf bin Abang Spawi of

Multiskills Training Centre, the initiative was implemented in two stages. The first established a shared greenhouse and fertigation system capable of holding approximately 200 to 300 polybags. The site served as the project's central training and demonstration area, where participants attended practical and theoretical sessions in system operation, crop management and marketing. It also became a communal space where villagers could observe crop development, exchange experiences and solve problems together.

The second stage brought the training into participants' homes. Each person prepared an area capable of accommodating at least 50 polybags and received cocopeat, polybags, fertilisers, compost, manure, an electrical conductivity meter, seedling trays and fertigation accessories. Applying the skills at home allowed participants to practise daily rather than depend only on scheduled sessions. It also distributed production across several locations, reducing complete dependence on the shared site.

During the four-month active phase, participants learned how to prepare growing media, sow seeds, transplant seedlings and operate the fertigation system. Training also covered nutrient management, crop observation and pest and disease control. Participants were guided to identify problems before applying treatments and to use registered crop-protection products responsibly according to label instructions. Business modules introduced recordkeeping, costing and basic marketing, encouraging participants to view production decisions in relation to both crop health and financial viability.

Implementation was affected by attendance difficulties, unusually hot weather and incidents of theft at the communal site. When participants could not attend because of personal responsibilities, close family members sometimes joined activities on their behalf and helped maintain the home systems. Additional water tanks were installed to provide a more stable supply during dry conditions. A rotating duty schedule was also introduced so participants could take turns monitoring and safeguarding

the shared farm. *The challenges revealed that successful community farming depends not only on technology but also on reliable routines, shared accountability and the ability to adapt.*

All 10 participants gained practical exposure to fertigation, and seven eventually began selling their harvests at the local weekly market and to neighbours. The remaining participants used their produce primarily for household consumption. Both outcomes contributed to the project's objectives: sales created supplementary economic opportunities, while home consumption reduced dependence on purchased vegetables and strengthened household food self-sufficiency.

Among those who expanded their activities was Abang Mostapa bin Abang Suhaili, aged 62. He entered the project with experience in traditional farming and a small home vegetable garden but wanted to understand modern cultivation techniques. Through training and mentorship, he expanded production to approximately half an acre and cultivated a wider variety of vegetables. Within four months, he was supplying produce consistently to Seniah binti Mek, a participant from an earlier project who had become a regular trader at Pasar Minggu Debak.

Abang Mostapa's experience demonstrated the value of connecting new producers with existing community traders. His progress did not depend only on improving cultivation; it also required a reliable pathway to customers. The relationship with Seniah created a local value chain in which knowledge and market access developed across different project cohorts. *One participant's earlier progress became another farmer's route to market.*

Nor Rinawati binti Talip, aged 39, followed a different path. Her original interest was in cultivating ornamental flowers for sale. Curious about modern food production, she began learning fertigation for chilli and eggplant. With project support, she established a half-acre fertigation garden beside her home and began marketing the produce independently.

Her journey showed how existing gardening experience could be redirected towards food production and supplementary household income.

The initiative contributes directly to SDG 2: Zero Hunger by strengthening household and community food production. It supports SDG 8: Decent Work and Economic Growth through small-scale agricultural enterprise and SDG 1: No Poverty through potential income and reduced food expenditure. More efficient water and nutrient delivery contributes to SDG 12: Responsible Consumption and Production, while practical training advances SDG 4: Quality Education.

Although seven participants began selling produce, verified data on harvest volumes, production costs, sales and net income were not reported. Future monitoring should document these indicators to determine whether the individual systems are financially sustainable. The project would also benefit from stronger site security, routine maintenance plans, shared purchasing of inputs and coordinated marketing arrangements.

Projek Fertigasi Komuniti Kampung Seberang demonstrated how a community's existing love of gardening could become a foundation for food production and rural enterprise. Participants learned to manage modern systems, protect crops and use their home compounds more productively. Some harvested for their families, while others entered the weekly market and began building customer relationships.

In Kampung Seberang, the seeds of change were planted both in shared greenhouses and beside participants' homes. As ornamental gardeners became food producers and small-scale sellers, the village discovered that modern agriculture could grow from familiar spaces, collective learning and the confidence to try something new.











RURAL RADIANCE: EMPOWERING WOMEN THROUGH MODERN GROOMING AND CREATIVE BEAUTY ARTS

Organization: Aura Skill Academy
Parliament: P.149 Sri Gading
Project Title: Rural Radiance: Empowering Women through Modern Grooming & Creative Beauty Arts
Funding Allocation: RM30,000
Email: auraskill55@gmail.com

In Sri Gading, Johor, women from low-income rural households often need livelihood opportunities that can be balanced with childcare and family responsibilities. Project records identified a group of women, primarily single mothers from the B40 community, who had limited formal education, little access to structured training and continuing financial insecurity. For these women, home-based grooming and cultural-styling services offered a potentially flexible pathway towards supplementary income without requiring them to leave their families for long periods.

The Rural Radiance: Empowering Women Through Modern Grooming and Creative Beauty Arts project (Y25-SP127) was developed in response to these needs. Implemented from 23 August to October 2025 in the P.149 Sri Gading parliamentary constituency, the three-month Phase 1 initiative was delivered by Aura Skill Academy under Solution Provider Sheva Shakthee Morugan. Community support was provided through connections with Rumah Sejahtera Batu Pahat, Majlis Pusat Kebajikan Semalaysia Cawangan Batu Pahat and the Parent-Teacher Association of SJKT Sri Gading.

The programme brought together 10 women for 12 weeks of practical learning in personal grooming, daily and event makeup, face art, basic

special-effects makeup, mehendi and saree draping. Training also introduced client communication, service pricing, social-media promotion and basic considerations for establishing a small home-based service. This combination helped participants understand that technical ability alone would not create a livelihood; they also needed to present their work, communicate reliably and set prices that reflected their time and materials.

Because many participants were entering the beauty field for the first time, trainers used demonstrations, visual materials and repeated practice rather than text-heavy instruction. Women who required more support received individual guidance, while flexible pacing allowed beginners to build confidence without feeling pressured. On selected days, participants could bring their children, reducing the childcare barrier that might otherwise have prevented attendance. *By adapting the learning environment to women's actual circumstances, the project made participation possible rather than expecting them to set aside their responsibilities.*

During the final stage, participants progressed from simple mehendi patterns to bridal and Arabic-inspired designs. They practised cone handling, pressure control, spacing, shading and continuous pattern flow, with every participant completing a full-hand design. Saree sessions introduced pre-pleating and draping techniques for different fabrics, body types and occasions. Participants explored how these skills could be offered during weddings, cultural celebrations and community events.

The programme concluded with revision, certification and a discussion on business readiness. All 10 participants completed the training with full attendance. Each received a certificate and a makeup bag or starter kit, reducing the immediate cost of practising and beginning to offer basic services. Hygiene, sanitation of reusable tools and safe product handling remain essential as participants move from practice to serving clients.

Early monitoring suggested that several women had begun applying their

skills. Sutha Maniam, a single mother, started offering saree-tying and mehendi services for functions and reportedly received weekend bookings. Vickneswari Veeramohan began providing eyebrow threading and simple makeup to neighbours, using before-and-after photographs on WhatsApp to attract referrals. Such photographs should always be shared with the client's consent and with appropriate attention to privacy.

Dhurka Devi Munernd began teaching basic makeup to teenagers and other single mothers in Batu Pahat while earning supplementary income. Her experience showed how one participant could extend the project's benefits by sharing skills with others. These early activities were still informal and small in scale, but they demonstrated growing confidence and willingness to move beyond the training room.

One of the clearest income examples came from Surammah Ramanaidoo, who added basic bridal makeup to the services she offered at wedding events. According to the final monitoring presentation, she earned RM300 from her first full bridal package. This amount represents one participant's early experience rather than a project-wide income outcome, but it provides tangible evidence that the skills could be converted into a paid service. *For Surammah, the first RM300 represented more than a booking, it was confirmation that her developing ability had value in the marketplace.*

Participants continued to face difficulties. Some struggled with hand control and speed when creating complex mehendi patterns, while heavier saree fabrics made draping more demanding. Discussions about business revealed uncertainty about pricing, marketing and interacting with unfamiliar customers. Trainers responded with additional practice, individual demonstrations and role-play exercises involving customer enquiries, service pricing and online promotion.

A WhatsApp group was established so participants could share their work, ask questions and exchange information about service opportunities. Aura Skill Academy also proposed six months of virtual check-ins, refresher

guidance and connections to NGO and vendor platforms. Weekend markets, wedding exhibitions and women-entrepreneur events could provide further opportunities for participants to develop portfolios and reach customers beyond their immediate networks.

Formal business development remains a longer-term need. At project completion, participants had not created shared operating procedures or formally registered a collective Organization. They remained uncertain about registration, legal responsibilities, financial commitments and whether demand would be consistent. Continued mentoring, advanced training, seed funding and better market access could help them progress from occasional informal bookings towards more reliable microenterprises.

The initiative contributes directly to SDG 5: Gender Equality by expanding women's access to skills and economic participation. It supports SDG 8: Decent Work and Economic Growth through potential self-employment and locally delivered services, while practical training contributes to SDG 4: Quality Education. Community partnerships and continuing mentorship also reflect SDG 17: Partnerships for the Goals.

Rural Radiance established an encouraging foundation, but its long-term impact will depend on sustained bookings, safe service practices, accurate financial records and continued support. At completion, 10 women had acquired practical abilities, starter tools and a peer network. Several had begun offering services, and Surammah had earned RM300 from her first bridal package.

The project did more than teach makeup, mehendi and saree draping. It helped women who had limited access to formal training recognise that creativity, cultural knowledge and carefully developed skills could become their first steps towards confidence, independence and a livelihood of their own.









STIRRING UP OPPORTUNITY: FROM TRADITIONAL RECIPES TO COMMUNITY ENTERPRISE

Organization: KUMPULAN PENGEMBANGAN WANITA
Parliament: P.127 Jempol
Project Title: PROJEK PENGHASILAN PRODUK MAKANAN DODOL DAN SOS CILI
Funding Allocation: RM30,000
Email: malisatalib67@gmail.com



In Kampung Serting Ilir, Jempol, many women possess valuable experience in food preparation, traditional recipes and home-based production. However, turning these abilities into reliable income requires more than knowing how to prepare a good product. Recipes must be standardised, hygiene maintained, costs calculated and packaging made suitable for customers. Recognising the potential of collective production, Kumpulan Pengembangan Wanita introduced the Projek Penghasilan Produk Makanan Dodol dan Sos Cili (Y25-SP114) to help local women transform familiar foods into more organised market opportunities.

The Phase 1 economic initiative was implemented from 20 August to 20 November 2025 at the KPW building in Kampung Serting Ilir. Established in 2020, Kumpulan Pengembangan Wanita served as the implementing Organization, with Malisa Haji Talib leading the project. The Department of Agriculture was identified as a Solution Partner, while the Jempol parliamentary office was among the local stakeholders supporting the initiative.

The programme brought together 10 women, all of whom completed the project. Participants received practical training in chilli-sauce and dodol

production, food preparation, equipment handling, kitchen hygiene, packaging and recipe management. Standard operating procedures helped them understand how to produce more consistent batches rather than relying solely on personal estimation. *The kitchen became a shared production space where traditional knowledge was strengthened through measurement, Organization and teamwork.*

Practical learning took place through repeated production. Dodol was prepared on 9, 16 and 25 October 2025, while a chilli-sauce production session was held on 23 October. During the concluding activity, the group produced 100 bottles of chilli sauce. Although the total quantity of dodol was not reported, the repeated sessions allowed participants to become more familiar with the recipes, equipment and division of responsibilities. Each production round provided an opportunity to improve workflow and product consistency.

The project also improved the KPW building as a longer-term production space. Electrical maintenance was completed, followed by ceiling repairs between 23 and 29 October. These upgrades supported the group's ambition of continuing production after the funded period and eventually transforming the workshop into a centre where local entrepreneurs could produce, display and sell village products.

Market exposure extended beyond Kampung Serting Ilir. On 26 and 27 October, participants operated a promotional booth at the Armada Hotel in Petaling Jaya during an SDG policy-intervention forum. The event gave them an opportunity to present their chilli sauce and dodol to potential customers and stakeholders outside the village. Locally, participants promoted the products through their existing businesses, community networks, social media and WhatsApp groups.

Several women entered the programme with home-based businesses already in operation. Malisa Talib, aged 58, produced bahulu as a source of income. After joining the collective production group, she added chilli

sauce and dodol to the products displayed at her workshop. This allowed her to introduce the new items to customers who were already purchasing her bahulu. She also reported receiving supplementary income from the additional products, although the amount and reporting period were not documented.

Latifanor Dewi, also aged 58, produced cakes and biscuits from home. She displayed the chilli sauce and dodol at her baking workshop, where they attracted interest from her existing customers. Her experience demonstrated how community products could enter the market through business relationships participants had already established. Instead of beginning without customers, Latifanor used the trust built through her baking business to introduce something new.

Other participants used the project to diversify their activities. Hayati Harun, an active catering entrepreneur, incorporated chilli sauce and dodol into the range of foods she produced through KPW. Zainab binti Musa, who was involved in handicrafts and traditional snacks, joined the group to explore an additional income stream. Their experiences showed that collective production could complement different types of existing microenterprises.

These individual accounts indicate early income diversification, but no complete sales or profit records were provided. The 100 bottles of chilli sauce should therefore be treated as a production output rather than evidence that every bottle was sold. Similarly, reports of supplementary income do not yet demonstrate consistent monthly earnings. The strongest verified achievement is that participants gained production skills and developed products that could be added to their existing businesses.

Labour availability presented a challenge because participants had household, business and other responsibilities. This was particularly difficult during the final production period. The group responded by choosing dates that suited more members and adjusting output to the

available workforce. Limited funding also restricted production capacity, while marketing and pricing required further development.

Initial sales focused on the surrounding community, supported by WhatsApp and social-media promotion. However, future pricing should be based on detailed calculations covering ingredients, packaging, utilities, transport, labour and possible product losses. Without accurate costing, a product may generate sales while providing little or no actual profit. Consistent financial records will therefore be essential as the group increases production.

KPW plans to continue producing chilli sauce and dodol and develop the workshop into a sales centre for village entrepreneurs. Future priorities include advanced production training, stronger quality-control procedures, improved packaging, digital marketing and financial management. Guidance on food-safety compliance, labelling and relevant Ministry of Health requirements also remains necessary. Depending on the production model and market scale, the group may need appropriate food-premise registration and certification support such as MeSTI.

The initiative contributes directly to SDG 5: Gender Equality by strengthening women's participation in community enterprise. It supports SDG 8: Decent Work and Economic Growth through product diversification and potential supplementary income and SDG 4: Quality Education through practical skills development. Collaboration with the Department of Agriculture, APPGM-SDG and the parliamentary office reflects SDG 17: Partnerships for the Goals.

The project's achievements are still at an early stage, but its foundation is clear: 10 women completed the programme, several production sessions were conducted, 100 bottles of chilli sauce were produced and participants incorporated new products into existing businesses. With stronger records, regulatory guidance and wider market access, these early outputs could develop into a sustainable collective enterprise.

In Kampung Serting Ilir, every batch of dodol stirred and every bottle of chilli sauce prepared represents more than a traditional recipe. Together, they reflect women combining experience, cooperation and entrepreneurship to create new opportunities from the skills already present within their community.











SHINE WITH SKILLS: MANICURE AND PEDICURE FOR EMPOWERMENT

Organization: NADI MURNI RESOURCES
Parliament: P.132 Port Dickson
Project Title: Shine With Skills: Manicure & Pedicure for Empowerment
Funding Allocation: RM30,000
Email: nadimurniresources@gmail.com

For young women from B40 households, entering the workforce can be difficult when employment does not accommodate family responsibilities, transportation limitations or the need to remain close to home. Beauty and personal-care services offer a potentially flexible alternative through freelance work or home-based enterprise. However, knowing how to perform a treatment is only one part of providing a credible service. Practitioners also need to understand hygiene, customer communication, pricing, financial management and digital promotion.

The Shine With Skills: Manicure & Pedicure for Empowerment project (Y25-SP054) was developed to create this pathway. Conducted at Dewan Masyarakat Lukut in the P.132 Port Dickson parliamentary constituency, the programme was implemented by Nadi Murni Resources under Project Manager Saravana Rhueban. The income-generation initiative comprised three months of training from July to September 2025, followed by three months of mentoring. Project records indicate an allocation of RM30,000, with RM24,000 received and spent and RM6,000 pending final payment by APPGM-SDG.

The project engaged 10 young women from B40 households, matching its

participation target. Flexible scheduling and a supportive learning environment allowed participants to balance training with their other responsibilities. Practical demonstrations were followed by repeated exercises and individual correction, enabling participants to progress according to their experience and confidence. *The training space became somewhere mistakes could be corrected safely before participants began serving real customers.*

Participants learned basic and advanced manicure and pedicure techniques, nail repair, nail art, nail care and spa-hygiene protocols. They were trained to prepare equipment, organise the work area and complete treatments systematically. Customer service and professional presentation were also emphasised because a client's experience depends on communication, comfort, privacy and cleanliness as well as the finished result.

Hygiene was especially important because manicure and pedicure tools can transmit infections if they are not cleaned and disinfected appropriately. Participants were introduced to hand hygiene, single-use materials, safe tool handling and routine cleaning between clients. They also needed to recognise situations in which a service should not proceed, such as visible infections, open wounds or other conditions requiring assessment by a qualified healthcare professional. These safeguards are essential as participants move from practice sessions to paid services.

Business learning complemented the technical modules. Participants learned how to prepare pricing lists, record appointments, budget for supplies and keep basic financial records. Digital-marketing sessions introduced social-media content and communication with prospective customers. Sample posts and templates provided a starting point for women who were unfamiliar with online promotion, while practical discussions helped them understand that sales revenue must be separated from the cost of products, transport and equipment.

During the final month, participants completed assessments in manicure, pedicure, nail repair, nail art and hygiene. All 10 women completed the required assessments and received certificates. Starter kits were distributed to active participants, reducing the immediate cost of continued practice and allowing them to begin providing basic services. Their training also produced simple operating tools such as hygiene checklists, appointment books and pricing lists.

Participants progressed at different rates. Some remained nervous when performing nail repairs, while others needed additional support with time management or digital content. Trainers provided individual coaching, repeated demonstrations and opportunities to retake assessments. Marketing templates gave participants a clearer structure for promoting their services. *Progress was not measured by how quickly everyone learned, but by whether each participant became safer, more systematic and more confident than when she began.*

The experience of Dhiviya, aged 23, demonstrates the programme's early livelihood potential. She entered without prior manicure or pedicure experience but gradually developed competency in complete treatments and spa protocols. By the end of the programme, she had begun providing services from home and earning income within her community. Although no income figures were reported, her transition from beginner to paid service provider showed that the training could lead to practical work.

Sharmila, aged 24, initially approached the programme with hesitation. Repeated practice in nail repair and hygiene strengthened her confidence, and project records indicate that she began receiving paying customers. She also expressed an ambition to establish a beauty outlet in the future. Her first clients represented an important beginning, but achieving that ambition will require sustained demand, capital, regulatory compliance and continued technical development.

Other participants showed different forms of progress. Kishalaa, aged 21,

advanced quickly and began assisting peers during training. She planned to use her certificate and starter kit to establish a small service corner in her community. Pravinah initially struggled with nail repairs but improved through individual guidance and peer support. She subsequently began offering part-time services to friends and relatives.

These stories demonstrate a continuum of impact, from increased confidence and peer leadership to early customer engagement. They should not be interpreted as evidence that all 10 participants established profitable businesses. No consolidated data on customers, sales, income or net profit were provided. The strongest verified outcomes remain the completion and certification of 10 participants, distribution of starter kits, establishment of basic service systems and documented cases of some women beginning to serve paying customers.

A WhatsApp alumni group and shared practice sessions allowed participants to remain connected with peers and trainers. Nadi Murni Resources committed to three months of post-training monitoring and proposed advanced modules in gel polish, nail art, branding and customer service. Potential apprenticeships with local salons could provide valuable experience, while high-performing participants may eventually assist future cohorts. At the point of reporting, however, formal partnerships with salons or other local stakeholders had not yet been confirmed.

The initiative contributes directly to SDG 4: Quality Education through accessible vocational and entrepreneurship training. It advances SDG 5: Gender Equality by strengthening women's skills and economic agency and supports SDG 8: Decent Work and Economic Growth through freelance and home-based service opportunities. Continued mentoring and proposed industry partnerships also reflect SDG 17: Partnerships for the Goals.

Long-term sustainability will depend on customer retention, safe operating practices, accurate financial records and business formalisation. Participants will also require further guidance on registration, insurance,

local licensing and appropriate disposal of used beauty materials. Regular skills updating will be important as products, techniques and customer expectations change.

Shine With Skills demonstrated how practical training can help young women move from uncertainty towards professional service delivery. For Dhiviya, Sharmila, Kishalaa and Pravinah, every carefully completed treatment represented another step towards confidence and economic participation. The programme gave 10 women the tools to begin; continued mentoring and real market experience will determine how far those beginnings can grow.









GROWING HOPE INDOORS: HOW M.I.S.H.A PROJECT 2.0 TURNED MUSHROOMS INTO OPPORTUNITY

Organization: Social Hero Foundation
Parliament: P.161 Pulai
Project Title: M.I.S.H.A Project 2.0 (Mushroom, Investment, Social, Hero, Agriculture)
Funding Allocation: RM40,000
Email: socialherofoundation@gmail.com

In the densely populated surroundings of PPR Melana Indah Phase 2 in Pulai, Johor Bahru, limited land does not leave much room for conventional agriculture. Yet inside a carefully managed community growing space, rows of grey oyster mushrooms have shown that productive farming does not always require open fields. Through M.I.S.H.A Project 2.0, representing Mushroom, Investment, Social, Hero and Agriculture, an urban community has transformed a compact indoor area into a source of food, practical knowledge and potential supplementary income for residents facing economic hardship.

Implemented by Social Hero Foundation (SHF), the project was developed for B40 and asnaf residents affected by rising living costs, unstable earnings and limited access to affordable fresh food. Instead of treating these challenges separately, M.I.S.H.A Project 2.0 addressed them through a community-based farming model that combined food production, livelihood development and social inclusion. Grey oyster mushrooms were selected because they can be cultivated indoors, require relatively little space and have the potential to be marketed either fresh or as value-added food products.

The initiative was led by Farrah Faridah Baptist, Programme Director of Social Hero Foundation and the appointed Solution Provider. Her 14 years of professional experience in corporate sales and marketing at Bank Islam brought an important commercial dimension to the project, particularly in helping participants understand customer engagement, product presentation and sales. Her community-development experience was equally valuable. Since 2021, she has coordinated humanitarian flood-relief missions across several Malaysian states that reportedly reached more than 10,000 families. This combination of business knowledge and grassroots service helped ensure that the project remained attentive to both commercial realities and participants' social needs.

Ten residents between 25 and 58 years old participated in the programme. The group included single mothers, homemakers, young people, persons with disabilities, e-hailing drivers, cleaners, retirees and other low-income residents. Many were reportedly earning between RM500 and RM1,000 per month through irregular or part-time work, leaving their households vulnerable to sudden expenses and changes in employment. For these participants, mushroom cultivation offered more than an agricultural activity. It provided an opportunity to acquire a practical skill, contribute to a shared enterprise and explore an additional source of livelihood close to home.

M.I.S.H.A Project 2.0 built upon the experience of the original M.I.S.H.A Project implemented in 2023 and 2024. During the first phase, residents demonstrated that indoor mushroom farming could operate within a PPR community despite restricted space and limited resources. Participants learned to coordinate cultivation schedules, harvest mushrooms and sell their produce collectively. The reported increase in group income from mushroom sales provided encouraging evidence of the model's potential, although no specific Phase 1 income figure was supplied. Phase 2 therefore focused on strengthening the system through improved quality control, better work Organization, product diversification, more professional packaging and broader market reach.

Several adjustments were introduced to improve the cultivation environment. Mushroom blocks were arranged on two-level shelving rather than the previous four-level system, giving participants easier access for watering while improving airflow around the blocks. Humidifiers and misting equipment were installed to maintain the moisture required for healthy mushroom development. Participants also received practical guidance in harvesting, grading, hygiene, packaging and basic financial management. Responsibilities were divided between an operations team responsible for the growing area and a sales team handling promotion and customer engagement, creating clearer accountability across the production cycle.

The project encountered its first major challenge when the supply of mushroom blocks was delayed. Only 500 blocks arrived initially, despite a larger order having been placed. Rather than postponing the programme, participants began working with the available blocks while continuing to prepare the site and attend training. This allowed learning and cultivation activities to move forward while the remaining supplies were being resolved. Their response demonstrated a practical lesson that would recur throughout the project: a community enterprise must be able to adapt when resources, schedules and operating conditions do not proceed as planned.

Maintaining the correct growing environment proved equally demanding. At one stage, humidity inside the mushroom house fell considerably, affecting the stability and quality of mushroom growth. Participants responded by increasing watering from three to five times per day and strengthening their daily monitoring schedule. As humidity improved, mushroom development became more stable. The experience helped participants recognise that indoor cultivation is not a passive process; it depends upon consistent observation, accurate routines and timely intervention whenever environmental conditions change.

Contamination and pest management created a more serious test. Green

mould appeared on some mushroom blocks, while other blocks became damaged or affected by pests. Several participants reportedly experienced discomfort and minor health effects associated with exposure to spores and mites. The team responded by convening a special meeting, removing compromised blocks, sanitising the growing area, cleaning the racks and reorganising the mushroom house. Damaged blocks were repurposed as compost around trees and landscaped areas instead of being discarded as ordinary waste. This reduced waste and reflected the project's circular approach, although future operations should continue strengthening ventilation, protective equipment, hygiene protocols and health monitoring to safeguard participants working inside the cultivation area.

One of the most promising developments was the group's decision to move beyond selling fresh mushrooms alone. Participants created a range of downstream products, including crispy fried mushrooms, mushroom popiah, mushroom pajeri, cheese-flavoured mushroom snacks and packaged fresh mushrooms. Weekly sales were organised in front of the community farm, with additional opportunities provided through community events and mosque celebrations. Local residents responded positively to the products' freshness, taste and novelty, giving participants valuable experience in preparing goods for real customers. However, as no consolidated production, revenue or profit figures were provided, these activities should be understood as evidence of early market engagement rather than proof of sustained business income.

Vacuum packaging was also introduced to improve presentation and potentially extend product shelf life. Participants learned about branding, labelling, pricing and customer service, addressing packaging limitations encountered during Phase 1. Appropriate food-safety controls remain important, particularly for cooked or moisture-containing mushroom products, as vacuum packaging alone does not guarantee safe storage. Standardised recipes, shelf-life testing, temperature control, accurate labelling and guidance from relevant food-safety authorities would help prepare the products for wider and more consistent distribution.

Beyond production and sales, M.I.S.H.A Project 2.0 created meaningful personal and social change. Homemakers who previously had few income opportunities became involved in sales, while younger participants developed greater responsibility through shared operational duties. Persons with disabilities contributed directly to cultivation and packaging, demonstrating how agricultural work can become more inclusive when responsibilities are adapted to different capabilities. Gotong-royong activities, rotating schedules and group decision-making also strengthened relationships among residents. Project feedback included the experience of a participant who felt that the programme had given her family renewed hope by enabling her to learn a skill, earn supplementary income and take pride in contributing to her community. As no exact statement was recorded, her experience is best presented as a reported reflection rather than a direct quotation.

The project contributes to Sustainable Development Goal 1 by creating pathways towards supplementary income for economically vulnerable households, and to SDG 2 by strengthening local food production within an urban community. Its inclusion of women and persons with disabilities supports SDGs 5 and 10, while practical skills development and community enterprise align with SDG 8. The reuse of damaged mushroom blocks as compost reflects SDG 12, and the collaboration between Social Hero Foundation, residents and community institutions supports the partnership principles of SDG 17.

M.I.S.H.A Project 2.0 demonstrates that urban food production can become a powerful platform for community empowerment when technical training is combined with inclusive participation, commercial exposure and collective responsibility. Its strongest achievements lie in establishing a functioning indoor cultivation system, improving participants' production and marketing skills, diversifying mushroom products and creating opportunities for vulnerable residents to contribute meaningfully. Continued health safeguards, reliable input supplies, standardised food processing, detailed financial records and stronger market connections will

be essential to confirm its longer-term economic sustainability.

In a place where open land was scarce, the community learned to cultivate possibility indoors. Every mushroom block demanded patience, every harvest required cooperation, and every product carried the effort of residents determined to create something of their own. M.I.S.H.A Project 2.0 did more than grow mushrooms, it helped an urban community grow confidence, dignity and hope together.











FROM CHILLIES TO OPPORTUNITY: GROWING PETRA JAYA'S COMMUNITY SAMBAL ENTERPRISE

Organization: SYARIKAT MASYHUR JATI
Parliament: P.194 Petra jaya
Project Title: Usahawan Sambal Cili Petra Jaya
Funding Allocation: RM40,000
Email: syarikatmasyhurjati@yahoo.com

In Petra Jaya, a chilli harvest has become the starting point for something much larger than agricultural production. Through the Usahawan Sambal Cili Petra Jaya project, locally cultivated chillies are being transformed into packaged food products with the potential to generate supplementary income and strengthen household livelihoods. By connecting fertigation farming with food processing, branding and marketing, the initiative has introduced participants to the complete entrepreneurial journey—from growing raw ingredients to placing a finished bottle of sambal in the hands of a customer.

Implemented under project code Y25-KK029 in the P.194 Petra Jaya parliamentary constituency, the project is managed by Syarikat Masyhur Jati and led by Abg Ismail bin Abg Kerny as Project Manager and Solution Provider. Activities began on 25 June 2025 at Matang Heights, Kuching, Sarawak. The project was structured around a four-month active implementation period followed by six months of monitoring, with completion scheduled for 30 March 2026. This extended monitoring period was intended to help participants maintain production, strengthen their businesses and address challenges that emerged after the formal training phase.

The initiative involved 10 participants from different occupational backgrounds, including homemakers, a retiree, a security guard, a part-time worker, a trader, a tailor, a car salesperson and an unemployed young person. This diversity created a valuable environment for peer learning, as participants brought different skills and experiences into the programme. Some already possessed basic knowledge of chilli cultivation or food preparation, while others were being introduced to agricultural entrepreneurship for the first time. Rather than developing a single uniform product, the project allowed individual participants to retain ownership of their recipes while receiving shared guidance in production, packaging and marketing.

The programme began with orientation sessions introducing participants to the project's objectives, the Sustainable Development Goals and the basic requirements of packaging and labelling chilli products. Experienced participants were positioned as mentors and paired with newer members, allowing knowledge to be transferred through direct guidance. Bottles, labels and relevant equipment were distributed among the participants, creating an immediate foundation for product preparation and market testing. This mentor-participant structure also encouraged experienced entrepreneurs to become role models for those who were still developing their confidence.

Entrepreneurship exposure was strengthened through external training. Five mentors attended a two-day digitalisation and online-business course organised by the Sarawak Digital Economy Corporation at Plaza Merdeka. They were subsequently encouraged to share what they had learned with the other participants and assess which digital tools were suitable for their businesses. Mentors also attended a two-day entrepreneurship programme organised by Perbadanan Nasional Berhad, which further strengthened their interest in business development. These learning opportunities introduced participants to online promotion, digital platforms and the broader possibilities of moving beyond informal sales.

As production progressed, participants attended packaging and branding clinics to improve their labels and product presentation. They began promoting their sambal in villages, grocery shops and food outlets, gradually developing confidence through small-scale sales. Cooperation became an important part of the business model: participants helped promote one another's products and could earn commissions when they secured sales for their peers. This collective arrangement encouraged the group to view individual success as something that could also strengthen the wider community enterprise.

Developing a marketable sambal required more than preparing a familiar household recipe. Participants had to consider consistency in flavour, texture, colour and spiciness while responding to feedback from customers. Small-scale research and development activities were therefore introduced to refine recipes and improve product durability. Participants learned that customer trust depends upon receiving the same product quality with every purchase. They also became more aware of the need for accurate recipes, controlled preparation and clear production procedures when moving from home cooking towards commercial food production.

Food hygiene and safety became another central part of the programme. Participants were introduced to standard operating procedures involving the use of gloves, head coverings and aprons, together with cleaner production and packaging practices. Guidance also covered labelling, expiry information and the proper handling of finished products. The Solution Provider planned to work with the Ministry of Health to provide further direction. This continued guidance will be important because statements regarding product shelf life and safety should ultimately be supported by validated processing methods, suitable testing, regulatory compliance and appropriate storage conditions.

Digital promotion was introduced through platforms such as Shopee, TikTok Shop and Facebook. Participants learned to prepare short promotional videos, customer testimonials and visual content for their

product labels. They also practised face-to-face selling, customer communication and product pitching through community sales and market activities. Over time, some participants began establishing relationships with local grocery stores, school canteens and customers in the surrounding area. The report further indicates that products had gained exposure through Shopee, although detailed platform-level sales records were not supplied.

By the reporting stage, 2,860 bottles of sambal had reportedly been produced and marketed throughout Petra Jaya. The report associates these bottles with a projected value of RM29,720, subject to payment through purchase orders. Because the amount had not yet been fully received, it should be treated as anticipated revenue rather than confirmed income or profit. Separately, 530 bottles were recorded as generating direct cash returns to participants, although the corresponding sales value was not stated. Another 30 bottles were sold for RM360 during the APPGM-SDG Capacity Building programme held at Dorsett Putrajaya from 22 to 24 August 2025. These figures demonstrate encouraging market activity, but complete payment and cost records will be required to determine the project's verified revenue, profit and participant-level income.

The progress of individual participants illustrates how the project's benefits extended beyond group-level production. Mohamad Izzat Hazim bin Basuan, aged 31, joined the initiative while unemployed. With technical guidance, he reportedly began managing more than 100 chilli plants and selling his harvest at the local market. Part of his produce was also channelled into the community's sambal production, enabling him to participate in both the agricultural and processing stages of the value chain. His experience demonstrates how an unemployed young person can begin developing greater independence through practical farming and market exposure.

For Lily binti Sanib, a 51-year-old homemaker who had previously

depended upon her husband's income, the project created an opportunity to develop her own red-chilli sambal. The report states that her product was placed in grocery shops around Petra Jaya and received online orders. Beyond the reported financial contribution, her progress strengthened her sense of recognition as someone capable of contributing directly to her household economy. Mohamad Al-Fikri bin Junaidi, aged 42, explored further product diversification by developing downstream items such as dried sambal and chilli powder. The proceeds were reportedly used as working capital for subsequent production, reflecting an early understanding of business reinvestment.

Progress was accompanied by significant challenges. Some participants understood the concepts introduced during training but struggled to apply tools such as Shopee, Facebook advertisements and Canva independently. Limited access to suitable smartphones, computers and stable internet connections made digital participation more difficult. Motivation sometimes declined when early sales were slow, while participants also lacked experience in brand building, customer retention and systematic account management. One-to-one mentoring and repeated demonstrations were therefore necessary to help participants move from theoretical understanding to practical business action.

Operational challenges were equally important. Participants had to balance chilli harvesting and sambal preparation with household and employment responsibilities. Storage for bottled products was not always sufficiently organised, and product quality initially varied in taste, texture and spiciness. Participants also felt hesitant when approaching new customers and remained heavily dependent on relatives and friends as their first market. The project addressed these limitations through individual consultations, recipe improvement, hygiene training, sales practice and continued mentoring. Nevertheless, dedicated storage, standardised production records and wider market access remain important priorities.

The project's next stage focuses on formalising the Sambal Cili Petra Jaya production system through a comprehensive manual covering standard recipes, precise measurements, cooking temperatures and quality-control procedures. Other proposed improvements include premium tamper-evident or airtight bottles, continued digital advertising, partnerships with local content creators, participation in agricultural expos and food fairs, and further product diversification into anchovy sambal, salted-fish sambal, dried-shrimp sambal and chilli sauce. Participants also plan to continue cultivating chillies through fertigation so that the enterprise can maintain a more reliable supply of its principal raw material.

The initiative contributes to SDG 1 by creating pathways towards additional household income, SDG 2 through chilli cultivation and local food production, and SDG 8 by strengthening entrepreneurship and productive economic participation. Its emphasis on reducing agricultural waste, improving production practices and developing value-added products supports SDG 12. Relationships with the Petra Jaya parliamentary office, the Department of Agriculture, business mentors, suppliers and marketing partners also reflect the collaborative approach promoted under SDG 17.

Ultimately, Usahawan Sambal Cili Petra Jaya demonstrates that community agriculture can generate greater value when participants are supported beyond the point of harvest. Its strongest contribution lies in connecting cultivation, food processing, packaging, financial knowledge and market engagement within one practical learning journey. While confirmed income, profitability and regulatory progress will require continued documentation, the project has already helped participants recognise that a chilli crop can become more than something sold in its raw form—it can become the foundation of a locally owned community enterprise.

Every bottle produced in Petra Jaya carries more than chilli, flavour and spice. It carries the patience of growers, the confidence of new entrepreneurs and the shared determination of a community learning to turn its harvest into opportunity. From the fertigation plot to the market shelf, these participants

are not simply producing sambal; they are cultivating a more independent future.











THEMATIC: ENVIRONMENT

HATCHING RESILIENCE: HOW A COMMUNITY IS BUILDING A SUSTAINABLE POULTRY FUTURE

Organization: DMT Enterprise
Parliament: P.093 Sungai Besar
Project Title: Projek Pembiakkan Anak Ayam dan Makanan Alternatif Ternakan
Funding Allocation: RM40,000

In the rural communities of Sungai Besar, raising chickens has long provided families with food and supplementary income. However, the increasing cost of commercial poultry feed and the difficulty of obtaining healthy, high-quality chicks have made small-scale farming increasingly challenging. Many farmers continue to depend on external suppliers for chicks, feed and other agricultural inputs. This dependence raises production costs and leaves farmers vulnerable to inconsistent supplies and livestock quality. At the same time, growing consumer demand for fresh kampung chicken eggs and naturally raised poultry products has created new opportunities for local farmers.

Recognising this potential, DMT Enterprise introduced the Projek Pembiakkan Anak Ayam dan Makanan Alternatif Ternakan under the APPGM-SDG Food Security Programme 2025. Implemented in Sekinchan, Sungai Leman and Sungai Besar, Selangor, the project was led by Muhammad Saufi bin Zakaria. The initiative aimed to help community members become more self-sufficient by combining free-range egg production, chick breeding, alternative feed cultivation and agricultural waste recycling.

Ten participants between the ages of 25 and 40 joined the programme. They included young people, homemakers, self-employed individuals, farmers and agricultural workers. Although they came from different backgrounds, they shared a common interest in strengthening their farming skills and developing more sustainable sources of income.
The programme built upon the achievements of Phase 1, during which participants constructed breeding and layer-chicken coops. They also learned the fundamentals of poultry care, feeding, livestock health monitoring and disease management.

Phase 2 took their learning further. Instead of continuing to depend entirely on external suppliers, participants were introduced to the technology and knowledge needed to breed their own chicks and produce alternative livestock feed.

The project encouraged the participants to see poultry farming not as a collection of separate activities but as one interconnected agricultural system.

A significant step towards self-sufficiency began with the introduction of automatic egg incubators. Participants learned how to select suitable machines, maintain the correct temperature and humidity, arrange eggs properly and create optimal conditions for successful hatching.

Before an egg entered the incubator, it had to be carefully selected. Participants learned how to assess fertilised eggs based on size, weight and shell condition. They were also taught proper storage techniques to improve hatchability.

Through hands-on demonstrations, they began to understand how the quality of the breeding stock, egg-selection practices and incubation conditions could influence the health of newly hatched chicks.

Each successfully hatched chick represented more than new life, it represented greater independence from external suppliers.

The participants also learned how to care for chicks during their most vulnerable stage. Systematic multi-level cages were introduced for chicks between one day and one month old. The cages were designed to improve hygiene, temperature management and protection from predators. Improved waste-management features made the cages easier to clean and reduced the risk of unhealthy living conditions. Instead of treating chicken manure solely as waste, participants learned how it could be processed and reused as organic fertiliser for crop cultivation.

This circular approach allowed the output from one farming activity to become a useful input for another. Feed remained one of the farmers' greatest concerns. Commercial poultry feed can represent a significant portion of production costs, making small-scale operations difficult to sustain. The project therefore introduced alternative feed sources that participants could cultivate within their farms and surrounding areas.

Participants learned how to grow azolla, ketum ayam and napier grass as supplementary feed for poultry. Training included land preparation, seedling management, irrigation and organic fertilisation using recycled chicken manure and Black Soldier Fly Larvae frass. Approximately 50 ketum ayam seedlings were successfully planted at one of the project sites in Sekinchan. Beyond providing a potential feed source, the cultivation activity helped participants understand how local plant resources could reduce their dependence on externally purchased inputs.

One of the project's most innovative elements was the introduction of Black Soldier Fly Larvae, commonly known as BSFL. Under the guidance of Liyana Farhanah binti Noor Izan from Kebun Rahsia, participants learned about the Black Soldier Fly life cycle, breeding systems, waste-decomposition processes and larval-harvesting techniques.

The training was practical. Participants established BSFL breeding stations, prepared feeding media, hatched larvae, monitored their growth and harvested mature larvae for use as poultry feed. BSFL can contain

approximately 40% to 60% protein, making the larvae a potentially valuable alternative protein source. Their importance, however, extended beyond animal nutrition. The larvae could consume kitchen scraps and other organic materials, transforming waste into nutritious livestock feed. The remaining material, known as frass, could then be used as an organic fertiliser.

Kitchen waste fed the larvae, the larvae nourished the chickens, and the farming by-products returned nutrients to the soil.

Through this process, participants began building a more circular farming system, one that reduced waste, lowered dependence on commercial feed and made better use of locally available resources. The learning journey brought several challenges. Weather conditions affected crop cultivation and livestock management. Maintaining stable incubator conditions required close attention, while livestock diseases remained a continuous risk. Successful hatching could not be achieved simply by purchasing an incubator; it depended on careful egg selection, monitoring and consistent management.

Despite these difficulties, the participants remained actively involved. Each challenge became an opportunity for collective problem-solving. They exchanged observations, supported one another and developed practical solutions based on their different farming experiences. The programme strengthened their abilities in poultry breeding, incubation management, chick care, alternative feed production and sustainable waste management. Participants also reported greater confidence in developing and expanding their small-scale poultry activities.

The benefits extended beyond technical knowledge. By bringing together farmers, young people, homemakers and agricultural workers, the programme created a network of community members who could continue sharing knowledge and resources. Young participants were exposed to agriculture as more than a traditional occupation. They experienced

The initiative supports SDG 2: Zero Hunger by strengthening local egg and poultry production. It contributes to SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth by creating opportunities for supplementary income and agricultural entrepreneurship.

Its emphasis on alternative feed, organic-waste recycling and circular farming practices also supports SDG 12: Responsible Consumption and Production. By reusing poultry waste and organic materials, the project demonstrates how food production can become more resource-efficient and environmentally responsible. Today, the poultry initiative in Sungai Besar demonstrates what can happen when local farming knowledge is strengthened through innovation and community collaboration. Its strength does not come from one activity alone. It comes from connecting chick breeding, egg production, alternative feed cultivation and waste recycling into a more resilient farming ecosystem.

The community's journey is continuing. Future plans include increasing poultry-production capacity, strengthening online marketing for eggs and chicks and expanding BSFL production for wider commercial use.

What began with a need for affordable feed and healthier chicks has grown into a community-led vision for a more secure and sustainable food future.

Through every egg selected, every chick hatched and every organic material recycled, the participants are gradually reducing their dependence on outside resources. More importantly, they are demonstrating that small-scale community farming can play a meaningful role in strengthening household livelihoods, protecting the environment and building local food security.











WHEN THE EARTH WHISPERS BACK: GROWING FOOD, RESTORING SOIL AND UNITING COMMUNITIES

Organization: Tani Noka Sdn Bhd
Parliament: P.113 Sepang
Project Title: Kita Berbisik-bisik Dengan Alam (We Whisper to The Earth)
Funding Allocation: RM40,000
Email: team.taninoka@gmail.com

In Sepang, discarded fruit peels, food scraps, grass cuttings, rice husks and other organic materials are being given a second life. Instead of being transported to landfills, these materials are returned to the earth, where they help restore soil fertility and support the production of new food. This transformation lies at the heart of Kita Berbisik-bisik Dengan Alam, or We Whisper to the Earth, a community-led sustainable agriculture initiative implemented by Tani Noka Sdn. Bhd. under the APPGM-SDG Food Security Programme 2025. Led by Project Director and Solution Partner Ooi Hooi Chong, the project responded to growing concerns about food waste, declining soil quality, excessive dependence on chemical agricultural inputs and the increasing disconnection between communities and nature. Tani Noka recognised that addressing these challenges required more than teaching people how to grow vegetables. It required helping them rediscover their relationship with the earth and recognise that materials commonly treated as waste could become valuable resources for environmental regeneration and food production.

The project built upon an earlier initiative called I Whisper to the Earth. While Phase 1 focused primarily on individuals and smaller groups, Phase 2 expanded the vision from “Me” to “We,” transforming sustainable farming

into a shared community responsibility. Participants came from diverse backgrounds and were between 20 and 67 years old. They included retirees, homemakers, young people, teachers, entrepreneurs, farmers and members of the public, with equal participation from men and women. Some participants arrived with farming experience, while others had rarely worked directly with soil. Regardless of their backgrounds, they were united by a desire to understand how food could be produced in a way that was safer, more sustainable and more respectful of the environment. Through shared activities, participants learned that meaningful environmental change becomes more achievable when individuals work collectively and take responsibility for the resources within their own communities.

At the centre of the initiative was the concept of waste-rich farming, an environmentally friendly approach that transforms organic waste into natural nutrients for the soil. Participants learned to view food scraps, fruit peels, grass cuttings, biochar, rice husks and other organic materials not as burdens to be discarded but as resources that could support soil fertility, biodiversity and crop growth. They were introduced to the idea that healthy soil is a living ecosystem containing organic matter, air, water, microorganisms and countless biological interactions. By returning diverse organic materials to the land, participants could support these natural processes, reduce the volume of waste sent to landfills and lower their dependence on synthetic fertilisers and pesticides. *Their journey began with a simple but powerful change in perspective: what appeared to be waste could become the foundation for new life.*

The participants cultivated okra, chilli and sweet corn, which were selected with guidance from FAMA based on market demand, suitability to the local climate and manageable cultivation requirements. Limiting the number of crop varieties also made pest management and farm maintenance more practical for participants who were not full-time farmers. Their learning took place through workshops and direct field experience covering soil preparation, seed propagation, irrigation, organic fertiliser production,

post-harvest management and farm financial planning. These sessions connected scientific knowledge with practical application. Participants did not merely listen to explanations about sustainable agriculture; they prepared the soil, planted seeds, managed irrigation systems and observed how the crops responded to different farming practices. This practical approach gradually strengthened their confidence and enabled them to understand the relationship between soil health, crop performance and responsible resource management.

One of the project's most distinctive features was its emphasis on beneficial microorganisms and ecological restoration. Participants learned how to cultivate Indigenous Microorganisms, commonly known as IMO, as well as Photosynthetic Bacteria, Lactic Acid Bacteria and natural fruit enzymes. These biological preparations were used to improve soil health, support nutrient cycling and strengthen plant resilience naturally. Through this training, participants discovered that some of the smallest living organisms could play an important role in restoring the soil and supporting healthier food production. *Beneath every healthy plant was an unseen community of microorganisms working continuously within the soil. This understanding encouraged participants to appreciate agriculture as a living system rather than a process dependent solely on external chemical inputs.*

The waste-rich farming approach required patience because organic materials release nutrients more gradually than chemical fertilisers. The soil needed time to recover, microbial activity needed time to develop and participants needed time to observe the effects of each intervention. Rather than expecting immediate results, they learned to work with natural cycles and recognise that long-term soil restoration depends on consistent care. The programme also transformed the farm into a living classroom through its three main pillars: SDG Farming for Change, Anak TANI SDG and Jom! Meet the SDG Farmer. Children, community members and visitors experienced sustainability through practical farming activities, educational workshops and direct interaction with farmers. Instead of learning about the Sustainable Development Goals only through

presentations, they could touch the soil, observe microorganisms, handle organic materials and understand where their food came from.

The achievements of the earlier project phase demonstrated the potential of this community-based approach. Between January and May 2025, approximately 13,157 kilograms of organic waste were diverted from landfills and reused within the farming system as natural nutrients and soil enhancers. During the same period, almost 500 external visitors participated in 14 community-engagement activities, reflecting strong public interest in sustainable farming and environmental education. Phase 1 participants also harvested more than 93 kilograms of produce and 72 ears of sweet corn, generating approximately RM958 in sales revenue despite many having limited previous farming experience. While these figures provided encouraging evidence of the project's practical outcomes, its most important achievement was the long-term knowledge gained by participants in seedling preparation, composting, beneficial-microorganism cultivation, microgreens production and sustainable crop management.

Like many community-based agricultural initiatives, the project faced operational challenges. Since most participants were not full-time farmers, maintaining consistent farm management required additional coordination and assistance from farm workers. Processing large quantities of organic waste demanded time, labour and careful Organization, while weather conditions and pest pressures created further uncertainty. The slower release of nutrients from organic materials also meant that changes in soil quality and crop performance were not always immediately visible. Nevertheless, participants remained motivated as they gradually observed healthier soil, stronger plants and improvements in the farming environment. Each challenge became an opportunity for collective problem-solving, allowing participants to share observations, test solutions and support one another. The land did not respond immediately, but when it did, it showed the participants what patient restoration could achieve.

Collaboration with strategic partners further strengthened the initiative.

FAMA, Putra Mart UPM, universities, private agricultural companies and technical experts provided participants with access to agricultural knowledge, post-harvest guidance and potential marketing channels. Former Phase 1 participants also returned as facilitators and members of the technical support team, demonstrating an important transformation from learners into community leaders. Beyond agriculture, the programme encouraged healthier lifestyles, strengthened relationships and reconnected participants with nature. Retirees exchanged experiences with younger participants, while newcomers learned from those with practical farming knowledge. Through working together, they developed a greater appreciation for environmental stewardship and understood that protecting the earth does not always begin with large-scale interventions. It can begin with a fruit peel, a handful of rice husks or a decision to return organic matter to the soil rather than sending it to a landfill.

The project contributes directly to SDG 2: Zero Hunger by supporting sustainable food production and strengthening community food resilience. It advances SDG 12: Responsible Consumption and Production by transforming organic waste into productive agricultural resources, while its emphasis on soil restoration and reduced chemical dependency contributes to SDG 13: Climate Action and SDG 15: Life on Land. Its educational activities support SDG 4: Quality Education, and the partnerships established among communities, government agencies, universities and private Organizations reflect SDG 17: Partnerships for the Goals. Together, these contributions demonstrate that sustainable food production can simultaneously address environmental protection, community education, waste reduction and social connection.

Today, We Whisper to the Earth stands as a meaningful example of how regenerative farming, waste management, environmental education and community participation can be integrated into a single initiative. Its story is not merely about cultivating okra, chilli or sweet corn. It is about cultivating awareness, shared responsibility and a renewed relationship between people and the environment. Through patience, practical learning

and collective action, participants discovered that restoring the soil could also restore community connections and inspire more sustainable ways of living. *When the community whispered to the earth through care and respect, the earth answered, with healthier soil, growing food and a community brought closer together.*











A GARDEN IN THE CITY: GROWING FOOD, FRIENDSHIP AND A GREENER FUTURE

Organization: Pertubuhan Kebun Ceria Indah Kuala Lumpur
Parliament: P.100 Pandan
Project Title: Fertigasi Terung Panjang, Cili Padi, Tomato Ceri dan Labu Air Secara Bersepadu dan Mesra Alam dengan Eko Enzim dan Kompos Kebun Komuniti Ceria Indah
Funding Allocation: RM40,000
Email: hofattmk@gmail.com

In the middle of a busy urban landscape, where buildings and roads leave increasingly little space for nature, the Kebun Komuniti Ceria Indah has become a place where vegetables, friendships and environmental awareness can grow together. Urban communities are facing higher living costs and more limited access to affordable, nutritious food, while food waste and dependence on chemical agricultural inputs continue to create environmental concerns. For retirees and older residents in particular, city life can also provide fewer opportunities to remain physically active, socially connected and meaningfully involved in their communities. The community garden was developed in response to these interconnected challenges, demonstrating how a shared green space can support food security, healthier living and a stronger sense of belonging.

Led by Project Chairman Chong Khen Foor, Pertubuhan Kebun Ceria Indah Kuala Lumpur introduced the project Fertigasi Terung Panjang, Cili Padi, Tomato Ceri dan Labu Air Secara Bersepadu dan Mesra Alam dengan Eko

Enzim dan Kompos Kebun Komuniti Ceria Indah under the APPGM-SDG Food Security Programme 2025. Implemented at Kebun Komuniti Ceria Indah in Kuala Lumpur, the initiative brought together 12 participants, including retirees, homemakers, NGO members and working adults from diverse backgrounds. They shared a common interest in transforming a limited urban space into a productive garden capable of supplying fresh food, strengthening environmental awareness and creating opportunities for community participation.

The garden combined modern fertigation technology with environmentally responsible farming practices. Participants cultivated long brinjal, bird's eye chilli, cherry tomatoes, bottle gourds, herbs and marigold flowers, selected according to local demand, economic potential and suitability to the local climate. The fertigation system delivered water and nutrients directly to the crops, allowing participants to manage plant growth more efficiently within a restricted space. Rainwater harvesting, also known as SPAH, further supported water conservation, while integrated crop-management techniques helped participants monitor plant health and respond to pests and diseases more effectively. Within a small urban garden, the community created an interconnected farming system in which technology and environmental responsibility worked side by side.

Learning took place through practical workshops and regular work in the garden. Participants were trained in fertigation management, greenhouse crop care, eco-friendly pest control, composting, harvesting, digital marketing and downstream food processing. Each session gave them an opportunity to apply new knowledge directly to the crops. They learned how to identify plant-health problems, prune effectively, manage irrigation and determine when vegetables were ready for harvesting. Over time, participants became more confident in making farming decisions and maintaining the garden collectively. The skills acquired were not limited to the community garden, as several participants later began applying the same methods in their home gardens to produce food for their households.

Environmental responsibility formed a central part of the project. Food waste collected from households and the community was transformed into compost and eco-enzymes that could be used within the garden. These materials provided greener alternatives to excessive chemical fertilisers and pesticides, reduced operational costs and encouraged participants to reconsider how they managed waste at home. Instead of treating food scraps as items to be discarded, participants learned how organic materials could be returned to the soil and used to support new crop growth. What left the kitchen as waste returned to the community as nourishment for the garden. Through this process, the project connected household waste management with urban food production and demonstrated how small behavioural changes could contribute to more sustainable living.

The participants also explored ways of increasing the value of their harvest. Bird's eye chillies were not sold only as fresh produce; participants learned how to process them into Thai-style chilli sauce. This activity introduced them to downstream product development and showed how surplus or less visually appealing produce could be transformed instead of wasted. It also opened possibilities for diversifying income and reaching different customer groups. During the monitoring phase, sales of bird's eye chillies, long brinjal, bottle gourds and cherry tomatoes generated approximately RM750 in revenue. Although modest, the income demonstrated that a community garden could produce both social benefits and small economic returns.

The farming journey was not without challenges. Locally grown bird's eye chillies had to compete with cheaper imported produce, making it difficult for participants to secure favourable market prices. Harvesting the chillies was also labour-intensive because the plants required close monitoring during peak production. When harvesting was delayed, some chillies became overripe, reducing their quality and market value. Changing weather conditions and crop cycles further affected the consistency of production. These challenges taught participants that successful urban

farming depends not only on growing healthy crops but also on careful scheduling, sufficient labour, product processing and reliable market access.

Community partnerships helped participants respond to these demands. Students from Universiti Kuala Lumpur and TAR UMT joined gotong-royong activities involving weeding, pruning, harvesting and general garden maintenance. The project also established relationships with the Ampang Jaya Municipal Council, agricultural specialists, universities, NGOs and other local Organizations. These collaborations brought additional knowledge, manpower and visibility to the garden while strengthening connections between generations. Formerly separate groups, students, retirees, professionals and community volunteers, worked alongside one another towards the shared goal of maintaining a productive and environmentally responsible green space.

For the senior citizens and retirees involved, the garden became much more than a place to grow vegetables. Regular gardening activities helped them remain physically active, establish routines and maintain social relationships. Working together provided opportunities to exchange experiences, solve problems and enjoy the satisfaction of seeing crops progress from seedlings to harvest. Participants could continue contributing meaningfully to society by sharing knowledge, caring for the environment and supporting the garden's daily operations. The participation of both men and women also demonstrated that urban agriculture can provide an inclusive community platform regardless of age, gender or previous farming experience. *Every harvest represented not only the growth of a crop but also the continued participation and contribution of the people who cared for it.*

The initiative contributes directly to SDG 2: Zero Hunger by strengthening local food production and access to fresh vegetables. Its use of compost, eco-enzymes, rainwater harvesting and environmentally responsible farming methods supports SDG 12: Responsible Consumption and

Production and SDG 13: Climate Action. The creation of a productive and inclusive urban green space contributes to SDG 11: Sustainable Cities and Communities, while its opportunities for active participation, social interaction and healthier lifestyles support SDG 3: Good Health and Well-Being. Collaboration among residents, universities, local authorities and community Organizations also reflects SDG 17: Partnerships for the Goals.

Today, Kebun Komuniti Ceria Indah stands as an example of how a small urban space can be transformed into a source of food, environmental learning and community connection. By integrating fertigation technology, responsible waste management, value-added food production and inclusive participation, the project has shown that urban farming can respond to several community needs at once. Future plans include expanding chilli-based products, improving market access and involving more urban residents in sustainable agriculture. In a city where green spaces are becoming increasingly scarce, the garden offers a hopeful reminder that communities can still create room for nature, nourishment and one another.











FROM FUTSAL COURT TO FOOD HUB: HOW PPR BERINGIN GREW NEW POSSIBILITIES

Organization: Kebun Komuniti KRT PPR Beringin
Parliament: P.115 Batu
Project Title: Fertigasi Rock Melon Kebun Komuniti KRT PPR Beringin
Funding Allocation: RM40,000
Email: rozianishariff@gmail.com

At PPR Beringin in Kuala Lumpur, an abandoned futsal court once stood unused within a densely populated residential area. Although the court occupied valuable community space, it offered little benefit to the residents living around it. At the same time, many families faced rising living costs and limited access to fresh, affordable food. Retirees, single mothers and residents from low-income households were also searching for opportunities to remain active, learn practical skills and earn supplementary income. Rather than allowing the neglected court to remain empty, the community began imagining how it could be transformed into something productive, a place where food, livelihoods and stronger community relationships could grow together.

Led by Project Manager Che Roziani binti Mohd Shariff, Kebun Komuniti KRT PPR Beringin introduced the Fertigasi Rock Melon Kebun Komuniti KRT PPR Beringin project under the APPGM-SDG Food Security Programme 2025. The initiative transformed the former futsal court into an urban farming hub using modern fertigation technology and sustainable agricultural practices. Its purpose extended beyond producing rock melons. The project aimed to strengthen local food security, create supplementary economic opportunities, encourage healthier lifestyles and

demonstrate how underutilised spaces in public housing areas could be repurposed for the collective benefit of residents.

The project brought together 12 participants between the ages of 18 and 60, comprising men and women from different ethnic and social backgrounds within the PPR Beringin community. Over four months of active implementation, followed by six months of monitoring, participants progressed through structured training in site preparation, fertigation installation, seedling production, nursery management, irrigation, nutrient monitoring, pest control, harvesting, digital marketing, financial management and leadership. Internet of Things technology was introduced to support irrigation and nutrient monitoring, giving participants exposure to a more modern and data-informed approach to agriculture. *The abandoned court was no longer simply being cleaned, it was being redesigned as a space for learning, production and shared responsibility.*

The Golden Rock Melon variety was selected as the project's principal crop because of its strong market demand and commercial value. Participants worked together to install and maintain the fertigation system, manage the seedlings and monitor crop development. They learned that successful rock melon cultivation required careful attention at every stage, from preparing the planting area and mixing nutrients to controlling pests and identifying the appropriate time for harvesting. Alongside the rock melons, participants cultivated organic vegetables that could be consumed by residents or sold to generate additional income. They also explored value-added products such as rock melon jelly and ice cream, opening possibilities for extending the value of the harvest beyond the sale of fresh fruit.

Environmental responsibility was incorporated into the farming system through the production of JADAM organic fertiliser using food and garden waste. Instead of treating organic materials as rubbish, participants learned how they could be processed and returned to the farming system as useful inputs. This approach helped reduce farming costs, encouraged

better household-waste management and lowered dependence on conventional chemical fertilisers. Producing vegetables and rock melons directly within the residential area also shortened the distance between food production and consumption. Residents could see where their food was grown, understand how it was managed and appreciate the effort required to produce it. *What had once been a neglected urban surface gradually became a living example of how waste, technology and community effort could support a more sustainable food system.*

Growing crops in an open urban space, however, presented significant challenges. Without a greenhouse, the plants were directly exposed to unpredictable weather. Heavy rain increased the risk of root rot, while strong winds damaged vines and affected crop stability. During periods of extreme heat, participants had to increase irrigation and conduct pest-control activities early in the morning to reduce plant stress. These conditions taught the group that agriculture requires flexibility, observation and continuous care. With guidance from agricultural facilitators, experienced urban farmers and trainers from relevant agencies, participants adjusted their farming practices, strengthened the plants and improved the way they responded to environmental changes.

As the crops grew, so did the participants' abilities. Managing the farm collectively required discipline, communication and teamwork. Responsibilities had to be shared, daily tasks coordinated and farming problems discussed. Participants gradually developed the confidence to manage activities more independently and make practical decisions about crop maintenance. The project also attracted interest from government agencies, NGOs, universities and other urban farming communities. As visitors arrived to observe the site and learn about its activities, the former futsal court evolved into a community learning and reference hub for sustainable urban agriculture.

The project's economic benefits came from the sale of rock melons and organic vegetables, but its human impact was equally important. One of

the participants, Nursisa binti Abdullah, was a 55-year-old single mother and homemaker. By participating actively in daily farming activities, she gained an opportunity to contribute supplementary income to her household while remaining physically active and connected to the community. The garden gave her a productive role and a shared space where her effort contributed directly to the growth of the farm. Her experience demonstrated how urban agriculture can create flexible opportunities for women who may face difficulties participating in conventional employment.

Another participant, Hj Azahari bin Mat Nor, was a former Tabung Haji employee recovering from health complications following a stroke. For him, the garden provided more than an opportunity to earn income. Regular farming tasks allowed him to engage in gentle outdoor movement and became part of his daily physical-rehabilitation routine. The structured activities encouraged him to remain active while interacting with other community members. His experience showed that a community garden can serve several purposes simultaneously: it can produce food, strengthen social relationships and provide a supportive environment for personal recovery and well-being.

The initiative contributes directly to SDG 2: Zero Hunger by strengthening community-level food production and access to fresh produce. Its transformation of an underutilised urban space supports SDG 11: Sustainable Cities and Communities, while the use of organic waste for JADAM fertiliser advances SDG 12: Responsible Consumption and Production. Opportunities for supplementary income and practical agricultural skills contribute to SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth. The project's support for outdoor activity, emotional well-being and social participation also contributes to SDG 3: Good Health and Well-Being.

Today, the PPR Beringin rock melon project demonstrates how an urban community can transform a neglected space into a productive and

inclusive food ecosystem. Its success lies not only in the crops produced but also in the new purpose created for the space and its residents. A single mother found an opportunity to contribute to her household, a retiree discovered a supportive space for rehabilitation, and residents from different backgrounds learned to manage a modern farm together. *Where an abandoned court once represented neglect, rows of growing crops now represent food, dignity and collective possibility.*

Looking ahead, the community plans to develop greenhouse facilities, expand organic vegetable production and strengthen the commercial potential of its compost and value-added rock melon products. A greenhouse would provide greater protection from unpredictable weather, improve crop stability and support more consistent production. With continued training, partnerships and community commitment, the site can remain a source of food, learning and economic opportunity for future generations. The story of PPR Beringin shows that even in a densely populated city, sustainable agriculture can take root when communities are willing to reimagine the spaces around them.





GREEN PASTURES, BRIGHTER FUTURES: CULTIVATING RESILIENCE IN TOK KAH

Organization: SAS BUSINESS
Parliament: P.039 Dungun
Project Title: TANAMAN NAPIER UNTUK MENYOKONG INDUSTRI PENTERNAKAN BIRI-BIRI
Funding Allocation: RM40,000
Email: syahsazely@gmail.com

In Kampung Tok Kah, Dungun, Terengganu, livestock farming is an important source of food and income, but sustaining it is not always easy. Local labourers, plantation workers and small-scale farmers face unpredictable weather, fluctuating supplies of natural feed and limited access to modern agricultural knowledge. Dry periods can reduce the availability of fresh grass, while water shortages, pest attacks and uneven crop growth can threaten both livestock health and household income. Recognising these challenges, SAS Business, led by Project Manager Syahir Ammar bin Sazely, introduced an initiative that connected sustainable crop cultivation with the long-term needs of the local sheep-farming community.

Implemented between August and November 2025, the four-month project brought together 10 local men for practical training in Napier-grass cultivation, livestock management and sustainable farm practices. Instead of learning only through classroom sessions, participants worked directly on the land. They cleared the site, assessed soil fertility and improved livestock enclosures to provide better hygiene and ventilation. These activities helped them understand that livestock productivity depends on the quality of the entire farming environment, from the soil used to grow

feed to the cleanliness and safety of the animals' living spaces.

The project's central activity was the cultivation of Napier grass, a fast-growing fodder crop commonly used as feed for ruminant livestock. Participants learned how to prepare the land, plant suitable cuttings, manage irrigation, control pests and determine the correct time for harvesting. The ability to cultivate their own feed was important because dependence on naturally available grass left farmers vulnerable during dry weather and periods of low growth. By establishing a reliable Napier plot, the group could produce a more consistent supply of livestock feed and reduce the risks associated with seasonal shortages. *The green field gradually became more than a crop, it became a form of protection for the community's livestock and livelihoods.*

Participants also learned how to process harvested Napier grass into silage. The grass was chopped into smaller pieces, mixed with molasses and salt, compressed and stored in airtight barrels for fermentation. This method allowed the nutritional value of the grass to be preserved for future use. Instead of relying only on freshly cut fodder, farmers could store silage and provide feed during dry periods or other times when fresh grass was scarce. The training introduced participants to a practical form of climate adaptation, enabling them to prepare for difficult conditions before feed shortages became a crisis.

The project's personal impact can be seen in the journeys of several participants. Muhammad Hanif bin Mazanan, a 33-year-old local labourer, entered the programme without previous experience in animal husbandry. Through practical training, he developed knowledge of animal health, welfare and daily livestock management. His confidence grew to the point that he later took responsibility for coordinating livestock slaughtering and sales to the community. His progress demonstrated how someone without a farming background could acquire meaningful responsibilities when given structured guidance and practical experience.

Amir Yusof bin Ariffin, a 29-year-old labourer, showed a strong ability to connect classroom knowledge with field activities, particularly in land management and Napier cultivation. Meanwhile, 25-year-old plantation worker Muhammad Faiz Arsyad emerged as a group leader who helped coordinate daily tasks and maintain teamwork among the participants. Although the three men brought different experiences to the programme, each discovered a role through which he could contribute to the wider farming operation. *Their development showed that agricultural training can cultivate leadership and confidence alongside crops and livestock.*

The initiative generated encouraging early economic and agricultural outcomes. By September, participants had earned approximately RM800 from the harvest and sale of between 25 and 40 kilograms of sheep meat to the surrounding community. By the end of the active phase, the replanted Napier grass recorded a 90% survival rate, providing a strong foundation for continued fodder production. These results reflected the participants' growing ability to manage both the livestock and the crops required to support them. However, the programme's longer-term economic impact will depend on sustained animal health, consistent feed production and reliable market access.

The learning journey also changed how participants viewed sustainability. They began to understand that animal husbandry requires more than feeding livestock and preparing animals for sale. It involves planning, recordkeeping, environmental management and continuous care.

"Knowledge about the Sustainable Development Goals and sustainable agriculture opened their eyes to the importance of environmental sustainability and nutritious food."

"Success in animal husbandry requires commitment, careful planning and continuous care."

The project faced several practical challenges, particularly in maintaining

the Napier crop. Water shortages affected plant growth, prompting the group to plan a more efficient sprinkler-irrigation system. Uneven growth and pest infestations were addressed through organic pest-management approaches and more consistent monitoring. Participants also learned to organise harvesting according to the crop's estimated 40-to-60-day maturity cycle, helping ensure that the grass was harvested at an appropriate stage for livestock feeding and silage production. These challenges strengthened participants' ability to observe field conditions, identify problems and respond before crop losses became severe.

Animal waste was incorporated into the farming system rather than treated only as a disposal problem. Participants learned how sheep manure could be composted and used as organic fertiliser for the Napier crop. The fertilised grass could then be harvested and fed back to the livestock, creating a more circular relationship between animal rearing and crop production. This approach reduced waste, supported soil fertility and lowered dependence on externally purchased farm inputs. Although achieving a completely zero-waste system would require continued monitoring and improvement, the project established a practical foundation for more resource-efficient farming.

The initiative contributes directly to SDG 2: Zero Hunger by strengthening livestock production and local feed security. It supports SDG 8: Decent Work and Economic Growth by developing practical agricultural and entrepreneurship skills among local labourers. Its focus on silage production, organic fertiliser and resource-efficient farming contributes to SDG 12: Responsible Consumption and Production, while preparations for drought and water shortages support SDG 13: Climate Action. The reuse of sheep manure to improve crop production also contributes to SDG 15: Life on Land.

Today, the participants of Kampung Tok Kah are better equipped to manage a farming system that connects land, feed, livestock and income. Muhammad Hanif gained the confidence to coordinate livestock sales,

Amir developed practical cultivation skills and Muhammad Faiz demonstrated leadership in organising the group. Their journey from general labourers and plantation workers towards skilled agricultural participants remains ongoing, but the project has provided them with knowledge, infrastructure and a shared direction.

Looking ahead, the community plans to expand its market reach, introduce digital records for monitoring livestock health and maintain the Napier cultivation and silage-production cycle. Continued attention to irrigation, pest management, feed storage and financial planning will be essential for long-term success. *In Kampung Tok Kah, every surviving row of Napier grass represents more than a field of animal feed, it represents preparation, resilience and the possibility of a more secure future.*











CIRCULATING HOPE: SUSTAINABLE FISH AND VEGETABLE FARMING IN BAGAN SERAI

Organization: ANDARASA RESOURCES
Parliament: P.058 Bagan Serai
Project Title: PENTERNAKAN IKAN TILAPIA DAN PUYU SIAM HIBRID MENGGUNAKAN SISTEM RAS INTEGRASI AKUAPONIK
Funding Allocation: RM80,000
Email: zarizx3@gmail.com

In Bagan Serai, Perak, fish and vegetables are being cultivated within a connected system where water, nutrients and biological processes work together. Through the **Penternakan Ikan Tilapia dan Puyu Siam Hibrid Menggunakan Sistem RAS Integrasi Akuaponik (Phase 2)** project, participants are learning that modern food production does not necessarily require large ponds or extensive farmland. Implemented by Andarasa Resources, the initiative combines a Recirculating Aquaculture System, commonly known as RAS, with aquaponics to produce Red Tilapia, Hybrid Siamese Climbing Perch, sawi and kangkung. The project was designed to strengthen household food security while creating opportunities for supplementary income and more responsible resource management.

The initiative built upon Phase 1, during which participants established small-scale individual RAS fish-farming systems. Phase 2 expanded the approach by introducing Hybrid Siamese Climbing Perch, increasing production capacity and connecting fish cultivation with vegetable production through aquaponics. Each participant managed a system at home rather than depending on a single central site. This individual model

gave participants direct responsibility for feeding the fish, monitoring water quality, maintaining equipment and caring for the vegetables. *Every household system became a small learning laboratory in which participants could observe the relationship between fish, water, bacteria and plants.*

The project was led by Zariz Firdaus bin Zainal of Andarasa Resources, who has been involved in agricultural and community initiatives since 2014. As a member of NGO Kampit Rezeki since 2020, he has also contributed to programmes supporting asnaf households, single mothers and persons with disabilities. His experience in agriculture, project coordination, digital marketing, data analysis and e-commerce supported both the technical and market-development components of the initiative. Andarasa Resources also maintained partnerships with commercial farmers in the Kerian district, creating possible future pathways for participants who wished to expand their production.

One of the participants' most important lessons involved understanding the nitrogen cycle. Initially, some assumed that clear water meant the fish were living in safe conditions. However, water can appear clean while containing harmful levels of dissolved ammonia produced by fish waste and uneaten feed. Participants learned that beneficial bacteria within the biofilter convert ammonia into nitrite and then into nitrate. Ammonia and nitrite can be harmful to fish at elevated concentrations, while nitrate is generally less toxic and can be absorbed by plants as a nutrient. Understanding this invisible biological process changed the way participants assessed the condition of their systems. *They learned that water quality could not be judged by appearance alone; it had to be understood, tested and managed.*

Interpreting water-test results was initially difficult. Some participants confused ammonia readings or misread colour indicators on the test kits. Others overfed their fish because they assumed that visible feeding behaviour meant the fish required more food. Excess feed then decomposed, increasing the organic load and contributing to poorer water

conditions. Trainers responded through repeated demonstrations and hands-on monitoring. Participants learned how to test the water, interpret key parameters, manage feed quantities and maintain the beneficial bacteria within the biofilter. They were also trained to distinguish between symptoms caused by fish diseases and problems linked to deteriorating water quality.

The aquaponics component created another learning experience. Not every plant performs equally well in every system, and participants initially had limited knowledge of suitable crop selection. They learned that leafy vegetables such as kangkung and sawi were appropriate choices because their nutrient requirements matched the scale and conditions of the system. The inappropriate use of chemicals, particularly chlorine, was also addressed because chlorine can harm fish and disrupt beneficial microbial communities. Through continuous guidance, participants developed a more integrated understanding of how a decision affecting one part of the system could influence all the others.

The project adopted a flexible learning approach to accommodate participants with different levels of technical understanding. Formal training was supported by continued guidance, monitoring and practical troubleshooting. Rather than presenting RAS and aquaponics as simple technologies that could operate without attention, facilitators emphasised that the systems required observation, maintenance and informed decision-making. Participants also learned resource-efficient and waste-minimising practices, including using dissolved nutrients from fish production to support vegetable growth instead of discharging the water after a single use.

The project successfully produced Hybrid Siamese Climbing Perch and leafy vegetables, including *kangkung* and *sawi*. Much of the produce was used for household consumption, directly strengthening participants' access to fish and vegetables. Each participant also generated an estimated **RM250 to RM300 from fish production**, with additional value

created through fresh sales and processed products such as pekasam. The scale remained small, but the results showed that a household system could contribute to both food supply and supplementary income.

Participants described the project as a **"sinar baharu," or new ray of hope**, particularly for those with no previous experience in modern aquaculture. Fully sponsored training gave them access to equipment, technical knowledge and networks that might otherwise have remained beyond their reach. They valued not only the possibility of earning income but also the ability to produce food for their families and manage the systems independently.

"This project has become a new ray of hope for us. We gained knowledge and skills in modern fish farming, learned how to produce food for our families and developed the confidence to continue and expand in the future." , **Participant reflection**

The initiative contributes directly to SDG 2: Zero Hunger by strengthening household-level fish and vegetable production. Its recirculation of water and integration of fish nutrients with plant cultivation support SDG 6: Clean Water and Sanitation and SDG 12: Responsible Consumption and Production. Opportunities for supplementary income contribute to SDG 8: Decent Work and Economic Growth, while practical training advances SDG 4: Quality Education. Partnerships with community Organizations and commercial farmers also reflect SDG 17: Partnerships for the Goals.

Participants have demonstrated that they can continue operating their systems independently and have expressed an interest in supplying fish or vegetables to commercial farmers within the Kerian district. Moving from household production to commercial supply will require consistent volume, reliable quality, financial records and stronger market coordination. Nevertheless, their intention to expand reflects a positive shift from supported learning towards greater independence and entrepreneurship.

The project demonstrates that technology alone does not guarantee successful modern farming. Equipment must be supported by an understanding of biological processes, continuous monitoring and practical problem-solving. By learning to manage the nitrogen cycle, protect beneficial bacteria, select suitable crops and control feeding, participants developed the skills needed to maintain an interconnected farming system. *As water circulates between the fish and plants, knowledge also continues to circulate, from trainers to participants, from one household to another and from initial learning towards a more sustainable food future in Bagan Serai.*











TIDES OF OPPORTUNITY: BUILDING CLIMATE-RESILIENT SHELLFISH LIVELIHOODS IN KUALA KEDAH

Organization: FINS GEMILANG ENTERPRISE
Parliament: P.010 Kuala Kedah
Project Title: Ternakan Kerang-kerangan
Funding Allocation: RM40,000
Email:
komunitinelayanpantaiamanlaut@yahoo.com

Along the coast of Kuala Kedah, fishing has supported families and shaped community life for generations. However, coastal livelihoods are becoming increasingly vulnerable to changing weather, rising temperatures and uncertain marine conditions. For small-scale fishers and aquaculture operators, even slight changes in water temperature and quality can affect shellfish growth, survival and harvesting schedules. Recognising the need to strengthen both environmental monitoring and household livelihoods, Fins Gemilang Enterprise introduced the Ternakan Kerang-kerangan Project (Phase 1) as a community-based shellfish-farming initiative.

The project aimed to help participants respond to the growing market demand for shellfish while protecting the natural resources upon which production depends. Participants were organised into clusters so that responsibilities, equipment and technical knowledge could be shared. This group-based approach made it possible to coordinate monitoring, production and harvesting more efficiently than if every participant worked independently. At the same time, the experience provided individuals with a foundation from which they could eventually establish or expand their own aquaculture activities.

The initiative was led by Mohammad Syukri bin Anuar of Fins Gemilang Enterprise. With more than 10 years of Organizational experience spanning hospitality, marketing, financial management and leadership, the enterprise contributed operational and business-management knowledge to the project. Technical support was provided by Dr Hadzley bin Harith of the Fisheries Research Institute, Department of Fisheries Malaysia, and Anuar bin Omar, a fisheries officer experienced in community-based fisheries development. Their involvement helped connect local knowledge with scientific and technical guidance.

Participants learned that shellfish farming cannot be separated from the condition of the surrounding marine ecosystem. Shellfish depend directly on suitable water quality, temperature, food availability and environmental stability. Continuous monitoring was therefore essential not only for protecting the harvest but also for understanding changes within the coastal environment. *The health of every shellfish reflected the health of the water in which it was growing.*

Climate variability created one of the project's greatest challenges. Unpredictable weather caused fluctuations in water temperature, affecting shellfish growth and reducing the consistency of production. Extended periods of extreme heat increased the risk of stress and mortality. Unlike farming in a controlled indoor environment, coastal aquaculture participants could not regulate all the conditions surrounding their stock. They had to monitor the water closely, recognise changing risks and adjust their management decisions accordingly.

To reduce losses, participants strengthened their monitoring of water and environmental conditions. Harvesting schedules were adjusted, with some shellfish collected at an earlier maturity stage when prolonged heat created a higher risk of mortality. While earlier harvesting could influence the final size and market value of the product, it allowed participants to protect part of the crop rather than risk losing the entire stock. These decisions demonstrated the importance of adaptive management,

responding to real environmental conditions instead of following a fixed production schedule.

The project recorded a total harvest of approximately 2,000 kilograms, or two tonnes, of shellfish, with an estimated value of RM20,000. This result provided encouraging evidence of the project's economic potential. More importantly, it gave participants practical experience in production planning, environmental monitoring, risk management, harvesting and sales. The skills developed during Phase 1 established a foundation for future expansion, although larger-scale farming will require continued technical support, investment and reliable market arrangements.

The initiative's economic impact extended beyond shellfish production. A Pasar Nelayan, or Fishermen's Market, was established to improve direct access to customers and reduce dependence on intermediaries. Participants also became involved in dried-fish processing, diversifying the range of products available within the local fisheries economy. The formation of a cooperative registered with Suruhanjaya Koperasi Malaysia provided a more formal structure for collective planning, marketing and resource management. *The community was no longer focused only on harvesting from the sea; it was beginning to strengthen the entire journey from production to market.*

Participants reported that the fishermen's market and cooperative created new income opportunities and made it easier to sell products directly. Reduced reliance on intermediaries offered the potential for producers to retain a greater share of the product's value. The collective model also strengthened relationships among participants because production, marketing and future planning required cooperation. These developments created a more hopeful financial outlook for families that had previously depended on less predictable fishing income.

Although participants had not yet developed independent large-scale shellfish operations, they gained experience in managing aquaculture

activities and responding to environmental risks. They also became more aware of market opportunities and the importance of coordinating production through a cooperative structure. Their readiness to diversify and scale up reflected growing confidence, but future development must remain aligned with environmental carrying capacity, licensing requirements and responsible coastal-resource management.

The initiative contributes directly to SDG 8: Decent Work and Economic Growth by strengthening livelihood opportunities within the fisheries sector. It supports SDG 14: Life Below Water through water-quality awareness and responsible management of coastal resources. Its response to rising temperatures and unpredictable weather contributes to SDG 13: Climate Action, while the fishermen's market and cooperative support SDG 12: Responsible Consumption and Production. Collaboration among community participants, technical experts, fisheries agencies and market stakeholders also reflects SDG 17: Partnerships for the Goals.

The central lesson from the project is that successful aquaculture depends on the ability to adapt. Shellfish farmers must understand not only production and marketing but also the environmental signals that determine when stock is at risk. Monitoring water conditions, adjusting harvest times and diversifying income sources can help coastal communities manage uncertainty, although these strategies must be supported by continued scientific guidance and ecosystem protection.

Moving forward, participants plan to diversify fisheries-related products, improve production capacity and explore additional income opportunities through the cooperative and fishermen's market. Long-term success will depend on balancing economic ambitions with the health of the coastal environment. *In Kuala Kedah, the tides may remain unpredictable, but the community is becoming better prepared to navigate them, working together to protect the sea, strengthen livelihoods and build a more resilient future.*











FROM BURNING WASTE TO BUILDING CHANGE: KG. GERINSING'S ZERO WASTE JOURNEY

Organization: Zero Waste Sabah
Parliament: P.170 Tuaran
Project Title: Implementing a Community Zero Waste Program in Kg. Gerinsing, Tuaran, Sabah
Funding Allocation: RM40,000
Email: zerowastesabah@gmail.com

In Kg. Gerinsing, Tuaran, managing household waste has long been the responsibility of individual families. The coastal village lies outside the formal waste-collection coverage of the local district council, leaving residents with few practical options for disposing of their rubbish. Over time, open dumping and open burning became common practices. Although local rules permit the burning of garden waste under certain circumstances, mixed household waste, including plastics, was also sometimes burned. The resulting smoke and particulate matter affected air quality and created potential health risks, particularly when food was dried near open fires. Recognising that the community needed both infrastructure and practical alternatives, APPGM-SDG introduced a pilot zero-waste initiative to support a transition towards safer and more organised waste management.

The Implementing a Community Zero Waste Programme in Kg. Gerinsing project (Y25-SP161) originated from the 2025 APPGM-SDG issue-mapping exercise in the Tuaran parliamentary constituency. Implemented in partnership with Zero Waste Sabah, the Phase 1 initiative received an allocation of RM40,000. Its objective was not simply to collect waste but to establish a community-led system that could identify what the village

discarded, recover materials with value, manage organic waste and gradually reduce harmful disposal practices.

The project began with baseline data collection, household waste assessments and a brand audit to understand the types and quantities of waste generated. A village green profile was developed, and a Zero Waste Village Task Force was established to coordinate local implementation. Plans included a community-specific solid-waste management framework, structured collection schedules, a Material Recovery Facility and an information, education and communication campaign. *For the first time, waste that had previously been managed separately by individual households was being examined as a shared community challenge.*

Implementation proved more complex than expected. Communication with village leaders through WhatsApp was inconsistent, while the project team had no direct channel connecting it with every household. The absence of house numbers made it difficult to identify homes during surveys, monitor participation and conduct follow-up visits. Heavy rain interrupted field activities and caused minor equipment problems, while elections and other community events competed for residents' time. Attendance at several centralised activities was lower than anticipated, and volunteers working in areas with dengue risk required additional health and safety precautions.

Behavioural barriers were equally significant. Some residents had limited knowledge of waste segregation, while open burning was regarded as a normal part of daily life. There was also a perception that waste management was primarily the responsibility of village leaders rather than individual households. Trust had to be built before residents were willing to change familiar routines or participate in a new collection system. These experiences demonstrated that providing bins, schedules or a storage facility would not automatically change behaviour. T*he most difficult material to transform was not plastic or organic waste, it was a long-established understanding of who should take responsibility for it.*

The project team adapted its approach by working closely with the Jawatankuasa Kemajuan dan Keselamatan Kampung. A house-numbering system was introduced, improving household identification and making monitoring more systematic. Printed letters and door-to-door visits were used to reach residents who were less responsive through digital channels. Mosquito repellent and other preventive measures were provided for volunteers working in dengue-prone areas. Continuous dialogues and awareness activities reinforced the message that a cleaner village depended on the participation of households, leaders, volunteers and institutions alike.

Door-to-door engagement proved particularly effective. Instead of waiting for residents to attend a central session, project members could explain waste segregation within each household, answer questions and understand specific concerns. By this stage, 57 households had been identified and trained in basic waste separation. They were also informed about the planned collection service, which was expected to begin once participation reached 70 households and the required pushcart had been delivered. Although the collection system was not yet fully operational, the household training established an important foundation for implementation.

SK Mengkabong became another important partner because all primary-school children from Kg. Gerinsing attended the school. Environmental activities with students and teachers allowed information about recycling, waste reduction and public cleanliness to reach families indirectly. Collaboration with the Universiti Malaysia Sabah Marine Science Club further strengthened youth participation and connected university students with a real community environmental challenge. These partnerships improved the project's credibility and showed how schools and universities could help sustain environmental learning beyond individual awareness sessions.

Recycling data provided encouraging evidence of growing participation.

According to Task Force leader Noraida, the village collected 97 kilograms of recyclable materials in January, 207 kilograms in February, 282 kilograms in March and 219 kilograms in April, a cumulative total of 805 kilograms over four months.

"Hasil bahan kitar semula yang dapat dikumpul adalah 97 kg pada Januari, 207 kg pada Februari, 282 kg pada Mac dan 219 kg pada April." , Noraida, Zero Waste Village Task Force Leader

The figures show that a meaningful quantity of material was diverted from uncontrolled disposal and channelled into recycling. The decrease from March to April does not necessarily indicate declining commitment, as monthly volumes may vary according to household consumption, collection timing and storage patterns. Continued monitoring will be necessary to understand longer-term trends.

The recyclables storehouse began functioning as a central point for recovered materials, while organic waste was directed towards a community composting facility. Composting created an opportunity to return nutrients to the soil rather than burning or dumping food and garden waste. However, the facility had to account for local conditions, including dogs, monkeys, monitor lizards and chickens that could disturb exposed organic materials. Secure structures, suitable containers and clear maintenance responsibilities were therefore necessary for the composting system to operate safely and consistently.

The project also recorded that no new dengue cases had been reported in the village since implementation began, an observation acknowledged by the Tuaran District Health Office. This is encouraging, but the absence of new cases cannot be attributed to the waste programme alone without further public-health assessment. Nevertheless, improved waste handling and the removal of containers capable of collecting stagnant water can form part of broader dengue-prevention efforts.

The initiative contributes directly to SDG 11: Sustainable Cities and Communities by developing a locally managed waste system in a village without formal collection services. It advances SDG 12: Responsible Consumption and Production through household segregation, recycling and composting. Reduced open burning supports SDG 3: Good Health and Well-Being and SDG 13: Climate Action, while collaboration among residents, schools, UMS, the health office, village leaders and Zero Waste Sabah reflects SDG 17: Partnerships for the Goals.

Several lessons emerged from the first phase. Recruitment was more successful among households with an existing connection to the project, including families whose children attended SK Mengkabong. Personal visits produced stronger engagement than centralised sessions, while trusted institutions helped overcome uncertainty and strengthen credibility. The project also confirmed that infrastructure must be supported by continuous education, clearly assigned responsibilities and reliable local leadership.

Kg. Gerinsing has not yet achieved zero waste, and important work remains before the collection system is fully operational. However, the village has begun moving away from isolated household disposal towards a more coordinated community model. Fifty-seven households have received training, 805 kilograms of recyclables were collected over four months, a storage facility is operating and organic waste is beginning to be diverted into compost. *The project's progress is measured not only by kilograms of recovered materials but by each household that begins to see waste management as a shared responsibility.*

The Kg. Gerinsing experience demonstrates that environmental transformation is both a technical and social process. Behaviour developed over many years cannot be changed through a single campaign, but it can shift through patient engagement, practical alternatives and visible community leadership. With continued household recruitment, secure composting, reliable collection and sustained cooperation, the village is

building a cleaner and more resilient future, one numbered house, one conversation and one separated bag of waste at a time.











TURNING WASTE INTO WEALTH: BUILDING A CIRCULAR FARMING COMMUNITY THROUGH BLACK SOLDIER FLY FARMING

Organization: Koperasi Komuniti Pelancongan Kunak Berhad
Parliament: P.188 Lahad Datu
Project Title: Ternakan Lestari Larva Black Soldier Fly (BSF)
Funding Allocation: RM40,000
Email: axesude@gmail.com

In Kg. Hampilan, Kunak, Sabah, two seemingly separate community challenges were placing pressure on rural livelihoods. Small-scale poultry farmers were struggling with the rising cost of commercial animal feed, while organic waste from households and surrounding areas was often treated as a disposal problem. The Sustainable Farming of Black Soldier Fly Larvae Project, implemented by Koperasi Komuniti Pelancongan Kunak Berhad and led by Solution Provider Nurmaksud, connected these challenges through an integrated farming system. Instead of allowing organic materials to be discarded, the project introduced Black Soldier Fly larvae as a means of transforming selected organic waste into animal feed and soil amendments.

Black Soldier Fly larvae, commonly known as BSFL, can consume various forms of suitable organic material and convert part of it into larval biomass. The larvae can then be processed as a supplementary protein source for livestock, while the remaining material, known as frass, may be treated and used as an organic soil amendment. Through this approach, participants began to understand that waste could become a productive agricultural input when it was properly sorted, managed and processed.

What entered the system as discarded organic material could leave it as feed, fertiliser and new economic potential.

The initiative adopted an integrated farming model that connected BSF production with laying hens, pellet production, organic fertiliser and crop cultivation. Participants planted moringa, pumpkin, sweet potato, papaya and turmeric as potential ingredients or supporting crops within the wider farming system. BSF larvae and locally produced feed pellets helped reduce dependence on commercial poultry feed, while frass was used to support crop production. The crops could then contribute additional biomass or ingredients to the farm. This circular relationship encouraged participants to view poultry, insects, waste and plants as parts of one connected ecosystem rather than separate activities.

The project built upon Phase 1, during which participants produced approximately 104 kilograms of organic fertiliser from BSF frass. Phase 2 focused on strengthening modular production systems, improving product consistency and increasing community participation through practical training and mentoring. Participants were also introduced to digital marketing through platforms such as Shopee and TikTok Shop, creating potential channels for selling fertiliser, eggs and other farm products beyond the immediate village.

A total of 10 participants joined the programme, representing farmers, entrepreneurs, homemakers, young people, hospital staff and persons with disabilities. Their varied backgrounds reflected the project's inclusive approach, but it also meant that participants entered with different levels of farming and technical knowledge. Training was therefore conducted directly at the project site and covered the full BSF production cycle, including modular-system construction, larval care, broodstock management, frass processing, poultry integration, pellet production and online marketing.

Among the participants was 63-year-old Mansul bin Albabun, a person with

disabilities who initially found some of the technical concepts and unfamiliar farming systems difficult to understand. Through repeated demonstrations, practical guidance and continuous mentoring, he gradually became confident in managing routine responsibilities. Mansul helped maintain the cleanliness of the BSF production area and supported daily livestock care. His participation demonstrated that inclusive agriculture is possible when tasks, instruction and support are adapted to individual abilities. *Mansul's contribution was not defined by his limitations but by the responsibility he was able to undertake when given an appropriate opportunity.*

Participants worked collectively to prepare the site, construct modular BSF systems, install chicken coops, manage larval growth and plant crops. The practical approach allowed them to understand how each component functioned before taking on more independent responsibilities. They learned that successful BSF production requires careful feeding ratios, moisture control, cleanliness and observation. Too much moisture can interfere with larval management and frass processing, while unsuitable feed materials can disrupt production and create hygiene concerns.

The prolonged rainy season created major implementation challenges. Wet and uneven ground delayed site preparation and made infrastructure installation more difficult, while the temporary unavailability of machinery operators further affected progress. The project team introduced a more flexible work plan, appointed alternative operators and continued indoor or modular-construction activities during periods of heavy rainfall. These adjustments allowed learning to continue even when outdoor site development had to be postponed.

Another difficulty arose because the modular systems arrived without clear installation manuals. Participants who lacked carpentry or technical experience initially struggled to assemble the structures correctly. Trainers responded with direct demonstrations, and the participants worked together to test and complete the installation. What began as a logistical

weakness became a collaborative learning exercise. By the end of the process, participants had developed a stronger understanding of the structures and greater confidence in repairing or replicating them.

Moisture management also affected fertiliser production. Excess water in the biopond material slowed grading and filtering and resulted in inconsistent texture. Participants improved their monitoring practices and used grading equipment to achieve a more uniform product. Feeding ratios and operational methods were adjusted through observation and experimentation, demonstrating that the system required continuous refinement rather than a single fixed formula.

Between September and November 2025, the project produced approximately 69 kilograms of organic fertiliser and 13 kilograms of BSF larvae. Income was generated through fertiliser and egg sales, although the total amount was not reported. Participants also reduced part of their livestock-feed expenditure by incorporating larvae and self-produced pellets. These outcomes remained early-stage, but they showed how integrated farming could create value through several outputs rather than depending on one product alone.

Participant feedback reflected growing interest in replicating the model:

"Modular ternakan BSF sangat mudah pengendaliannya. Setiap rumah di kampung perlu ada."

"The modular BSF farming system is easy to manage. Every household in the village should have one."

Another participant connected lower production costs with wider participation in agriculture:

"Hasilkan baja dan makanan ayam dengan kos yang rendah, ramai yang akan masuk pertanian dan penternakan."

"If fertiliser and poultry feed can be produced at a lower cost, more people will be encouraged to participate in farming and livestock production."

The project contributes directly to SDG 12: Responsible Consumption and Production by transforming suitable organic waste into agricultural inputs. It supports SDG 2: Zero Hunger through poultry, crop and feed production and SDG 8: Decent Work and Economic Growth through rural farming and entrepreneurship opportunities. Diverting organic waste from uncontrolled disposal may also help reduce associated pollution and emissions, contributing to SDG 13: Climate Action. The inclusion of Mansul and other participants from different backgrounds supports SDG 10: Reduced Inequalities.

The initiative demonstrated that BSF farming can become an important component of a more circular agricultural system, but responsible management remains essential. Incoming organic waste must be suitable and free from hazardous contamination, while larval feed products and frass require appropriate treatment, quality control and compliance with relevant agricultural regulations before wider commercial sale. The model should therefore be expanded carefully, with continued technical monitoring and clear operating procedures.

The project's deepest impact can be seen in how participants' perceptions changed. Organic waste was no longer viewed only as rubbish, persons with disabilities were recognised as active contributors and small-scale agriculture was approached as an integrated system capable of producing several forms of value. *Through larvae, livestock, crops and collective effort, the community of Kg. Hampilan began turning a waste-management challenge into a pathway towards lower farming costs, stronger livelihoods and greater rural resilience*











FROM SOIL TO SUCCESS: EMPOWERING FARMERS THROUGH SUSTAINABLE PRACTICES

Organization: Fly Technology Agriculture Sdn. Bhd. (WormingUp)
Parliament: P.198 Puncak Borneo
Project Title: Projek Komuniti Pertanian Mesra Alam
Funding Allocation: RM80,000
Email: thenyy2@gmail.com / contact.wormingup@gmail.com

For small-scale farmers in the Puncak Borneo area, agriculture is becoming increasingly expensive and uncertain. The cost of fertilisers, pesticides, seeds and other farming inputs continues to place pressure on households that depend on successful harvests for food and income. Declining soil quality, pest outbreaks and unpredictable weather add further risks. When pest control depends too heavily on repeated use of the same chemical products, effectiveness may decline over time, while incorrect or excessive application can increase costs and create environmental and health concerns.

Recognising the need for a more balanced approach, Fly Technology Agriculture Sdn. Bhd., also known as WormingUp, introduced the **Projek Komuniti Pertanian Mesra Alam** (Y25-KK005). Led by Project Manager **Then Yi Yii**, the initiative focused on integrated pest management, soil improvement and more responsible use of agricultural inputs. Rather than asking farmers to abandon familiar practices immediately, the project introduced practical alternatives and encouraged them to make decisions based on crop condition, pest identification and plant-growth stages.

The four-month programme engaged **10 farmers from Kampung Betung, Kampung Subang and Kampung Pesang** within the P198 Puncak Borneo constituency. Across 14 structured sessions, participants learned about soil preparation, planting, composting, organic fertiliser production, crop monitoring, pest management, harvesting, pricing and sales. The selected crops, baby corn, long beans, spinach, water spinach and ensabi, had relatively short production cycles, allowing participants to observe the effects of their management decisions within the project and monitoring period.

Composting became one of the programme's central activities. Participants learned how suitable farm residues and organic materials could be processed into compost rather than discarded. When properly prepared and applied, compost can add organic matter, support soil structure and contribute nutrients to crops. This reduced some dependence on externally purchased inputs while encouraging farmers to treat agricultural residues as resources. *Materials once viewed as waste began returning to the soil as part of a more circular farming process.*

Participants were also introduced to bio-based pest-management preparations and integrated pest-management principles. They learned that effective control begins with identifying the pest or disease correctly, monitoring the severity of damage and selecting an appropriate response. Preventive practices, field hygiene and non-chemical controls could be used where suitable, while registered pesticides should be applied responsibly and according to label instructions when necessary. Training in fertiliser use also emphasised that crop requirements change across growth stages and that higher application rates do not automatically produce healthier plants.

Changing familiar farming habits required patience. Some participants were accustomed to relying on chemical pesticides because these products had formed part of their routine for many years. Trainers therefore used demonstrations and field observations to show how alternative practices

could be incorporated gradually. Frequent rain interrupted outdoor sessions, requiring some activities, including preparation of bio-based inputs, to be conducted at participants' homes. Weather-related seedling losses were addressed by obtaining additional seeds and adjusting planting activities.

Marketing presented another challenge because harvest volumes were not always consistent. Instead of immediately pursuing large buyers who required reliable supply, participants began with smaller sales in nearby markets and within their communities. This approach allowed them to gain experience in pricing, customer interaction and harvest planning without committing to volumes they could not yet guarantee. *Each small sale helped connect sustainable production with the practical realities of earning an income.*

Within six months, including the monitoring period, participants collectively harvested more than **1,900 kilograms of produce**. Sales of spinach, baby corn, long beans, water spinach and ensabi generated more than **RM2,900**. Although net profit was not reported and would need to account for labour, transport and production costs, the results showed that participants were able to convert their training into measurable agricultural output and market activity.

The experience of Giro anak Rangot, a homemaker and farmer, reflects the personal significance of the project. Her husband lives with heart disease and requires monthly hospital visits, leaving Giro to manage much of the physically demanding farm work while supporting her family. Despite these responsibilities, she participated actively and remained committed to cultivating baby corn. Fertilisers and other project inputs helped reduce part of her immediate production burden, while practical guidance supported better crop management.

Giro generated RM783 in sales, representing more than one-quarter of the total revenue reported across the project. Her achievement demonstrated

how targeted support can make a meaningful difference to a farmer balancing agricultural work with family-care responsibilities. *For Giro, every successful harvest carried the weight of persistence, the effort to sustain both her farm and her household through difficult circumstances.*

Beyond the production figures, participants developed a stronger understanding of soil care, input efficiency and environmental responsibility. They became more confident in observing crops, diagnosing problems and considering several management options instead of immediately applying a chemical solution. The project did not eliminate farming risks, but it equipped participants to respond with greater knowledge and planning.

The initiative contributes directly to SDG 2: Zero Hunger through local vegetable production and SDG 12: Responsible Consumption and Production through composting and more efficient input use. It supports SDG 8: Decent Work and Economic Growth through farming and market participation, while its emphasis on soil health and reduced environmental harm contributes to SDG 13: Climate Action and SDG 15: Life on Land.

Future monitoring should measure net income, soil condition, input costs, pest incidence and crop yields across several planting cycles. This would help determine whether the introduced practices create lasting financial and environmental benefits. Participants would also benefit from collective purchasing, coordinated production schedules and stronger local market agreements.

Projek Komuniti Pertanian Mesra Alam demonstrated that sustainable farming is not a single technique but a continuing process of observing, learning and adapting. From compost prepared with farm residues to Giro's RM783 in sales, the project showed how practical knowledge and appropriate support can help rural farmers cultivate healthier systems, stronger livelihoods and greater resilience from the soil upward.











GREENEDU FARM: GROWING FOOD, KNOWLEDGE AND COMMUNITY

Organization: Yayasan Taiwan Buddhist Tzu-Chi Malaysia
Parliament: P.138 Kota Melaka
Project Title: GreenEdu Farm through Sustainable Farming
Funding Allocation: RM40,000
Email: jbtzuchi@tzuchi.my

In Taman Semabok Permai, Melaka, a previously vacant space has been transformed into a community farm where vegetables, fruit trees, herbs, flowers, composting systems and people grow together. Through GreenEdu Farm through Sustainable Farming, the site developed beyond a place for producing food. It became a space where children could discover where vegetables come from, families could learn about composting and residents from different generations could contribute to a shared environmental initiative.

The project was coordinated by Foo Jia Jiann, Assistant Manager of Yayasan Taiwan Buddhist Tzu-Chi Malaysia (Melaka) and the appointed Solution Provider. The Organization's experience in recycling, food assistance, volunteer mobilisation and sustainability education helped shape the farm as both a production site and a public-learning platform. Rather than separating food security from environmental awareness, the project connected cultivation, waste reduction and community participation within one space.

Phase 2 engaged 13 participants, including retirees, young people, working adults and homemakers. The diversity of the group created opportunities

for intergenerational learning. Older participants contributed patience and practical experience, while younger volunteers brought physical energy, new ideas and digital abilities. *The farm's strength came not from everyone possessing the same knowledge, but from participants combining their different experiences around a shared purpose.*

The initiative built upon Phase 1: GreenEdu Farm through Organic Farming, which recorded 630.75 kilograms of harvests and RM4,468.80 in income. Participants in that phase learned cultivation, composting, marketing and site improvement. These achievements indicated that the farm could support both food production and community activity. Phase 2 therefore expanded the focus towards ecological design, volunteer coordination, public engagement and stronger operating systems.

The farm cultivated baby bok choy, choy sum, lettuce, water spinach, long beans, roselle, lemongrass, bitter gourd, sponge gourd, cassava, bananas, papaya and herbs. Composting areas, biodiversity zones and an ecological pond were incorporated into the site. These components encouraged participants to think beyond individual crops and consider the relationships among soil, water, plants, insects and human activity. Productive areas were combined with habitats and learning spaces, creating a more diverse community landscape.

Practical training introduced participants to permaculture, land observation, soil regeneration, biodiversity, syntropic agroforestry and food-forest design. Participants also constructed a banana-circle system and ecological pond. These features were intended to recycle organic materials, support water management and increase habitat diversity. Their effectiveness will depend on appropriate design, maintenance and observation, but the activities helped participants understand that sustainable agriculture involves designing systems rather than simply planting more crops.

As the farm attracted more volunteers and visitors, coordination became

increasingly important. Unclear responsibilities could result in duplicated work, neglected tasks or inconsistent visitor experiences. The team therefore conducted Standard Operating Procedure workshops to define farm routines, task allocation, volunteer roles and visitor-handling processes. This development helped the initiative transition from an informal garden into a more organised community facility.

Weather occasionally disrupted outdoor programmes. When heavy rain prevented field activities, sessions were moved indoors and continued through presentations, demonstrations and group discussions. This flexible approach ensured that visitors and participants could continue learning even when conditions were unsuitable. *The programme treated adaptation as part of sustainability, showing that environmental learning must respond to the environment itself.*

GreenEdu Farm became particularly valuable as an educational hub. Kindergarten children, parents, families, therapy-centre participants, volunteers and delegations visited the site. Children planted *kangkung* seedlings and learned how food develops from seed to harvest. Families participated in pot-making activities using recyclable materials and prepared salads from fresh ingredients. These experiences allowed environmental ideas to be understood through direct participation rather than explanation alone.

Children with additional support needs participated in sensory-sensitive farm activities designed to encourage observation and motor engagement. A farm environment can provide valuable sensory and practical experiences, but inclusive sessions require appropriate supervision, accessible pathways and adaptation to individual needs. The project demonstrated how agriculture can support participation when activities are planned around learners rather than delivered through a single fixed method.

Public events, exhibitions and carnival booths extended the project beyond

the farm. Participants promoted fresh produce, Bokashi composting and household sustainability practices. Visitors asked questions about composting and expressed interest in trying the methods at home. This outreach showed how a community farm can influence daily behaviour beyond its physical boundaries, although continued follow-up would be needed to determine how many visitors adopted the practices.

Phase 2 continued producing crops across multiple cycles and increased public visibility and volunteer involvement, although consolidated harvest and income figures were not reported. Participants developed confidence in agriculture, communication, teamwork and environmental stewardship. Many valued the sense of belonging created through shared tasks and harvests. One participant reflected that the project was not only about growing food but also about cultivating relationships, discipline and hope.

The initiative contributes directly to SDG 2: Zero Hunger through local food production and SDG 12: Responsible Consumption and Production through composting and resource awareness. It supports SDG 4: Quality Education through practical environmental learning, SDG 11: Sustainable Cities and Communities through the conversion of vacant land into a shared green space and SDG 15: Life on Land through biodiversity-oriented design. Its inclusive community participation also contributes to SDG 10: Reduced Inequalities.

GreenEdu Farm offers a promising model for urban and suburban communities, but replication requires suitable land, committed volunteers, clear governance, water access and long-term maintenance. Future reporting should document harvests, income, compost output, visitor numbers and participant retention so that the farm's ecological, educational and social outcomes can be assessed more clearly.

GreenEdu Farm demonstrates that a community garden's value cannot be measured by harvest weight alone. Its crops provide food, but its deeper roots lie in the knowledge exchanged, relationships strengthened and environmental responsibility cultivated among everyone who enters the farm








4



POWERED BY THE SUN: GROWING FOOD AND GREEN KNOWLEDGE AT SK TANJUNG KUPANG

Organization: SK Tanjung Kupang
Parliament: P.162 Iskandar Puteri
Project Title: Kebun Hidroponik Berkuasa Solar
Funding Allocation: RM40,000
Email: JBA1048@moe.edu.my

At SK Tanjung Kupang in Iskandar Puteri, a limited area within the school compound has been transformed into a practical centre for agriculture, renewable energy and community learning. Through the Kebun Hidroponik Berkuasa Solar project, participants learned that producing food does not always require extensive land or conventional electricity. By combining hydroponics with solar-powered pumps, the school created a space where environmental education, food production and small-scale entrepreneurship could develop together.

The initiative was coordinated by Ahmad Nasaruddin bin Federa Tajuddin, Headmaster of SK Tanjung Kupang and the appointed Solution Provider. He had previously managed the Smart Kupang Smart Agriculture System Project, which introduced hydroponics integrated with solar technology. In 2024, the Johor State Education Department recognised SK Tanjung Kupang as a Showcase School for Education for Sustainability. This experience gave the school a strong foundation for managing a project that connected technology with practical community participation.

The project engaged 10 participants, two men and eight women, comprising teachers, Parent-Teacher Association members, support staff

and homemakers from the surrounding community. Their different backgrounds created a collaborative learning environment in which educational knowledge, community experience and practical responsibilities could be shared. *The farm became a meeting point where the school and its surrounding community worked towards one sustainable goal.*

Each participant received a 32-hole Solar DC Hydroponic Set, creating up to 320 planting spaces across the distributed systems. Solar panels powered the irrigation pumps, reducing dependence on grid electricity during suitable sunlight conditions. Kangkung, sawi and salad greens were selected because of their relatively short growing cycles and suitability for hydroponic production. The systems also enabled crops to be cultivated systematically within a small space, although their performance still depended on reliable sunlight, pump operation and careful water and nutrient management.

Experts from Universiti Teknologi Malaysia supported workshops and practical sessions covering solar-energy systems, hydroponic management, plant nutrition, smart farming, the Internet of Things, harvesting and vegetable marketing. Participants were introduced to batteries, controllers, inverters and system-sizing principles, although the exact components required depended on whether individual systems operated directly on DC power or included battery storage. Seeing the equipment function in real time helped participants connect technical explanations with actual farm operations.

Some participants initially found the solar components difficult to understand. Terms such as voltage, controller capacity and energy demand were unfamiliar, while the relationship between the panel, pump and storage components required repeated explanation. Trainers responded through simplified demonstrations and hands-on troubleshooting. *The technology became less intimidating once participants could follow the energy from sunlight to the movement of water through the hydroponic system.*

Nature introduced an unexpected challenge when wild monkeys damaged the protective netting and threatened the crops. Participants organised repairs, reinforced the structure and reviewed the site's protective measures. This incident demonstrated that modern technology does not remove the need to understand local ecological conditions. Future protection should avoid causing harm to wildlife and should use secure, non-injurious barriers alongside regular inspections.

Crop management required equal discipline. Participants learned to monitor pH, prepare nutrient solutions and transfer seedlings carefully without damaging their roots. During the first planting cycle, these activities required close supervision. By the second cycle, participants were completing the tasks with greater speed and independence. The improvement showed how repeated practice could transform technical knowledge into a manageable routine.

The first sawi harvest was launched during the project's official opening ceremony and received encouraging support from parents and members of the school community. Buyers could observe where the vegetables had been cultivated and speak directly with those managing the systems. Project records show that the first harvest generated RM286.

The second crop, consisting of salad greens, attracted even stronger interest and sold out within two days. A later harvest generated RM277, bringing reported revenue across the two harvests to RM563. These figures represent gross sales rather than net profit, as the cost of seeds, nutrients, packaging, maintenance and labour was not reported. Nevertheless, the sales provided early evidence of local demand for produce grown within the school.

The project's educational impact extended to students who were not among the 10 core participants. Members of the school's environmental club visited the farm and learned about plant roots, nutrient circulation, water management and solar energy. The physical system helped make

scientific concepts more visible and relevant. Students could observe how renewable electricity powered the pump and how plants grew without conventional soil. *The farm became a living classroom in which science could be touched, tested and harvested.*

Participants also valued the teamwork and responsibility developed through the initiative. Managing the systems required planning, scheduled monitoring and cooperation. Seeing vegetables cultivated at the school and purchased by the local community created a sense of pride and shared ownership. The involvement of teachers, parents, staff and homemakers also strengthened connections between the school and surrounding residents.

The initiative contributes directly to SDG 2: Zero Hunger through local vegetable production and SDG 4: Quality Education through practical environmental and technological learning. Its solar-powered components support SDG 7: Affordable and Clean Energy, while space-efficient hydroponic production contributes to SDG 11: Sustainable Cities and Communities and SDG 12: Responsible Consumption and Production. Collaboration with UTM, parents and community participants reflects SDG 17: Partnerships for the Goals.

Long-term sustainability will depend on pump reliability, solar-panel maintenance, nutrient costs, crop scheduling and continued demand. Future reporting should document water and energy use, harvest weights, production expenses and net income. Clear responsibilities will also be needed during school holidays, when daily monitoring may be more difficult.

Kebun Hidroponik Berkuasa Solar offers a promising model for other schools, but successful replication requires suitable sunlight, technical support, secure infrastructure and committed personnel. It should therefore be adapted to each school's resources rather than copied without assessment.

At SK Tanjung Kupang, sunlight did more than power an irrigation pump. It powered curiosity, cooperation and a new understanding of how schools can grow food while preparing communities and students for a greener future.











A shared processing hub in Kampung Kuyungon, Tambunan, Sabah, where surplus vegetables become powders and pickles instead of spoiling in the field. A piece of clay, centred and shaped by hands in Petaling Jaya, Selangor, that became both a craft and a form of quiet healing. A pot of dodol stirred in Kampung Serting Ilir, Negeri Sembilan, a step toward turning a recipe woman already knew into new income. These are three of the sixty projects gathered in this book, each one proof that meaningful change rarely announces itself. It shows up in a processing room, a pottery wheel, and a kitchen.

Empowering Communities, Building Sustainable Futures: Best Practices from Community-Based Development and Food Security Initiatives presents sixty case studies from APPGM-SDG's 2025 portfolio, evenly split between the Community-Based Development Project (CBDP) and the Food Security (FS) Initiative, and representing all six of the country's implementation areas: Central, East Coast, North, South, Sabah and Sarawak.

Behind these sixty case studies sits RM2,225,000 in community-level funding channelled through the Ministry of Finance Malaysia, covering everything from first-time grassroots ventures to continuation grants for initiatives that had already proven themselves. The beneficiaries span women, youth, persons with disabilities, farmers, Indigenous communities, students and asnaf households, working across economic, social and environmental priorities, delivered through a mix of social enterprises, NGOs, universities, cooperatives and community associations.

What ties these sixty stories together is not the outcome but the process behind it, needs identified before funding was approved, guidance offered throughout, and results reviewed honestly at the end, setbacks included. Delays, capacity gaps and market access issues appear in this book alongside the wins, because a true record of grassroots development has to hold both.

This publication is written for the people who will use it, policymakers, practitioners, solution providers and community leaders, as a practical resource: real, tested approaches to community development and food security that can be examined, adapted and carried further across Malaysia.

SOCIETY FOR PROMOTION OF SUSTAINABLE DEVELOPMENT GOALS
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A-1-10, Blok A, 8 Avenue, Jalan Sungai Jernih 8/1, Seksyen 8,
46050 Petaling Jaya, Selangor.

secretariat@appgm-sdg.com

https://www.facebook.com/APPGMSDGMY

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