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ENHANCING INCLUSIVITY AND SUSTAINABILITY

SOCIETY FOR PROMOTION OF SUSTAINABLE DEVELOPMENT GOALS
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Sustainable Agriculture:
Community Resilience through Community Farming

Sustainable Agriculture: Community Resilience through Community Farming

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FOREWORD

Kon Onn Sein

Treasurer,
Society for Promotion of Sustainable Development Goals (PPMPL)

I am especially happy that this Sustainable Agriculture: Community Resilience through Community Farming has successfully documented some of the best agriculture projects coordinated by APPGM-SDG with funding from the Ministry of Finance. It is a story of how little resources can make big impacts with the right enabling environment. It is a testimony of the power of passionate individuals who wanted to make a change for those left behind groups and communities. Behind these reports are ordinary individuals with extraordinary commitment to work together with communities to bring about transformative impacts.

It shows that with very limited resources, how individuals and solution providers together with left behind groups of youth, women, indigenous groups and even persons with disabilities can achieve so much. It is also a testament that left behind groups given the appropriate support and opportunities can contribute towards food security, uplift poverty, and create job opportunities. And for some, their transformative impact has reached further and their small projects have grown to win the collaboration of state agencies to scale up.

It is hoped that the documentation of these projects will inspire and be helpful to draw lessons on how left behind groups are empowered and the enabling conditions required to bring about such empowered groups and communities with an all of nation approach. Ultimately, these food security projects do not just grow food, it also creates jobs, improve income, builds dignity, resilience, and togetherness.

INTRODUCTION

Nur Farah Ezzaty Abd Aziz

Director,
Project Management Department,
APPGM-SDG

With great pride and optimism, I present the Sustainable Agriculture: Community Resilience through Community Farming, which captures the continued progress of our Food Security Unit in advancing sustainable agricultural practices that empower grassroots communities across Malaysia. Since the launch of the APPGM-SDG initiative in 2020, our shared mission has been to strengthen food resilience, expand local innovation in farming, and cultivate self-sustaining communities that thrive through knowledge and collaboration.

In 2024, a total of 186 food security projects were implemented nationwide under the APPGM-SDG framework. From this vast network of initiatives, 31 outstanding projects were selected and documented in this publication, each representing a model of success, innovation, and empowerment. These include 17 agriculture projects, 5 integrated farming systems, 8 animal breeding initiatives, and 1 Ipoh Model Farm (IMF) that collectively reflect the depth and diversity of Malaysia's grassroots agricultural movement. The stories featured here showcase how communities, when supported through inclusive frameworks and capacity-building, can transform local challenges into sustainable solutions. From fertigation and aquaponics systems to organic cultivation and integrated livestock farming, these initiatives have demonstrated that sustainable food systems can flourish even in limited-resource settings when driven by collaboration and local ownership.

The achievements documented here would not have been possible without the continuous support of the Ministry of Finance Malaysia, whose recognition in 2023 through a special grant of RM10 million has since since enabled the APPGM-SDG Secretariat to expand its outreach and impact nationwide. Through structured monitoring, training, and knowledge-sharing, our programmes have strengthened local capacities, fostered environmental stewardship, and inspired a culture of resilience among farmers, youth, and women leaders across all regions. This publication highlights the transformative power of

grassroots innovation, where individuals and communities rise together to build sustainable livelihoods and safeguard national food resilience. It also underscores the importance of inclusivity, with initiatives led by women, youth, indigenous groups, and persons with disabilities (PWDs), all contributing meaningfully to Malaysia's commitment to Zero Hunger (SDG 2) and Decent Work and Economic Growth (SDG 8).

As we reflect on these stories, we are reminded that food security is not merely about production, it is about empowerment, resilience, and shared responsibility. Each initiative featured here reflects a journey of learning, collaboration, and hope for a more sustainable and equitable future. I hope this publication serves as a valuable reference for policymakers, NGOs, development practitioners, and private sector partners who share our vision of sustainable development. By documenting and sharing these best practices, we reaffirm our belief that empowering communities remains the most effective path toward achieving food resilience and ensuring that no one is left behind.

In closing, I wish to express my heartfelt appreciation to Dana Claudia Undan Dumpangol, Assistant Director of the Food Security Unit (2023–2025), for her exemplary leadership in guiding both the Food Security team. My sincere thanks also go to our editorial team members, Nur Shaidatul Sahira Adnan, Nur Fatehah Abd Kadir, Darshini Rawichandran, Rose Helen Ambrose, Corrin Alicia Nero, and Mc Jeanet Lempisik @ Marx for their dedication in curating these stories. I would also like to extend my gratitude to the APPGM-SDG Secretariat team for their steadfast support and guidance under the leadership of Prof. Datuk Dr. Denison Jayasooria, Rahmah Othman, and James Ryan Raj. Together, we continue to cultivate empowerment and sustainability, ensuring that every seed planted contributes to a stronger, more resilient Malaysia.

OVERVIEW: FOOD SECURITY PROJECTS 2024

Since its inception in 2020, the All-Party Parliamentary Group Malaysia on Sustainable Development Goals (APPGM-SDG) has spearheaded nationwide efforts to localize the SDGs through community-based interventions that strengthen food security, enhance livelihoods, and promote sustainable agricultural practices. Over the span of five years, APPGM-SDG has collaborated with hundreds of Solution Providers (SPs), empowering communities to address pressing food challenges through innovation, inclusivity, and partnership.

Between 2020 and 2022, APPGM-SDG worked with 132 Solution Providers, implementing 296 projects nationwide, of which 53 projects focused specifically on food security and food safety. These early initiatives provided valuable lessons on effective grassroots engagement and laid the groundwork for a more structured national approach to food security.

Recognizing the potential and impact of these pilot efforts, the Ministry of Finance Malaysia (MOF) in June 2023 entrusted APPGM-SDG with the implementation of the Food Security Initiative, supported by a special grant of RM10 million to expand the reach and impact of food security projects. Under this initiative, 200 projects were approved, with 198 successfully implemented by the end of 2023, demonstrating strong performance, local innovation, and growing public participation in sustainable farming and livestock systems.

The cumulative data in Table 1 below highlights the rapid growth and sustained commitment of APPGM-SDG toward improving food security across Malaysia. From a modest start in 2020 with only five pilot projects, the initiative has scaled up significantly over five years reaching a total of 426 projects implemented nationwide by 2024. This expansion reflects both increasing community engagement and strengthened institutional capacity in project delivery, monitoring, and evaluation.

Table 1. Cumulative APPGM-SDG Food Security Projects from 2020 until 2024

YEAR	NUMBER OF PROJECTS
2020	5
2021	17
2022	31
2023	198
2024	175
Total	**426**

In 2024, APPGM-SDG continued to demonstrate its strong commitment to localizing the SDGs through food security projects. Building on lessons and networks established in previous years, a total of 186 projects were approved, with 175 successfully implemented nationwide, including the flagship Ipoh Model Farm Initiative.

Following the overwhelming response from 2023 with 253 proposals received, 198 projects approved, and 2,060 beneficiaries reached, the 2024 cycle sustained this momentum with a renewed emphasis on sustainable agriculture, community resilience, and innovation in food systems.

The initiative reflects APPGM-SDG's inclusive and participatory model, where local communities identify key issues and propose sustainable solutions through structured issue-mapping exercises. This bottom-up approach ensures that projects remain locally relevant, context-sensitive, and aligned with Malaysia's broader SDG targets in economic, social, and environmental dimensions particularly Zero Hunger (SDG 2), Decent Work and Economic Growth (SDG 8), and Responsible Consumption and Production (SDG 12).

Table 2. Distribution of Food Security Projects (2024) with breakdown by zone, region, and beneficiaries.

NO.	ZONE/REGION	NUMBER OF PROJECTS	BENEFICIARIES
1.	North	30	310
2.	East Coast	30	311
3.	Central	25	264
4.	South	17	180

NO.	ZONE/REGION	NUMBER OF PROJECTS	BENEFICIARIES
5.	Sarawak	31	358
6.	Sabah	42	459
Total		**175**	**1882**

Sabah and Sarawak recorded the highest number of projects and beneficiaries, accounting for over 40% of the national total. This underscores APPGM-SDG's strong emphasis on strengthening rural and indigenous community food systems in East Malaysia, where food security initiatives serve as both livelihood support and capacity-building platforms for local farmers. The East Coast region maintained strong participation with 30 projects, reflecting sustained efforts to improve agricultural productivity and household resilience through diversified community-based farming initiatives. The Northern region, with 30 projects as well, showed robust adoption of structured agricultural programmes aimed at urban and peri-urban food production. Meanwhile, the Central region hosted 25 projects that focused on semi-urban communities integrating farming with local innovation and entrepreneurship. The Southern zone, though smaller in project count (17 projects), demonstrated high-impact community engagement with scalable models for replication in other areas.

Overall, the distribution reflects a balanced national coverage with East Malaysia driving rural empowerment, while Peninsular regions emphasize modernization, innovation, and urban food system resilience.

Table 3. Type of Farming by Zones & Regions (2024)

NO	TYPE OF FARMING	NORTH	EAST COAST	CENTRAL	SOUTH	SARAWAK	SABAH
1.	Modern Farming	10	10	6	7	12	7
2.	Organic Farming	4	1	7	1	7	9
3.	Integrated Farming	4	2	1	3	7	10
4.	Conven-tional Farming	4	-	-	-	-	-

NO	TYPE OF FARMING	NORTH	EAST COAST	CENTRAL	SOUTH	SARAWAK	SABAH
5.	Animal Breeding	4	-	-	-	-	-
6.	Mush-room Cultiva-tion	4	2	-	2	1	1
7.	Tradition-al Agricul-ture	-	5	8	1	1	1
8.	Agricul-ture Livestock	-	10	3	2	3	9
9.	Rice Cultiva-tion	-	-	-	1	-	5
Total		**30**	**30**	**25**	**17**	**31**	**42**

The diversity of farming types across regions highlights APPGM-SDG's adaptive and context-specific approach in implementing food security projects. Modern farming emerged as the most widely adopted method, with 52 projects nationwide, reflecting a shift toward technology-enabled agriculture such as fertigation, hydroponics, and smart irrigation systems. Organic farming followed with 29 projects, showing strong uptake in Central, Sarawak, and Sabah, where sustainable practices are integrated to enhance productivity while maintaining environmental stewardship. Integrated farming systems, totaling 27 projects, were also prominent in Sarawak and Sabah, demonstrating the focus on combining crop cultivation with livestock and other complementary practices to maximize efficiency and community resilience.

Traditional agriculture and agriculture-livestock projects were largely concentrated in the East Coast and Northern regions, totaling 43 projects, which reflects local preferences, resource availability, and cultural practices that remain vital for community sustenance. Sabah stood out with 5 projects in rice cultivation and 9 in agriculture-livestock integration, aligned with indigenous practices and local dietary needs. Mushroom cultivation and animal breeding were more selectively implemented across 14 and 4 projects respectively, serving specialized livelihood opportunities and niche food production. Conventional farming, though limited to 4 projects in the Northern region, provided additional options for SPs experimenting with established methods.

Collectively, this distribution illustrates a diversified yet complementary farming ecosystem where modern innovation, sustainable practices, and traditional knowledge coexist to strengthen Malaysia's inclusive and resilient food systems.

Table 4. Type of Registration of Solution Providers (2024)

NO	TYPE OF REGIS-TRATION	NUMBER OF SOLUTION PROVIDERS						
		NORTH	EAST COAST	CENTRAL	SOUTH	SARAWAK	SABAH	TOTAL
1.	SSM	17	18	15	8	19	15	92
2.	KRT	-	-	1	-	-	-	1
3.	PIBG	-	-	-	-	-	-	0
4.	ROB	-	1	2	2	6	5	16
5.	ROS	3	5	7	5	5	10	35
6.	ROY	-	-	-	-	2	-	2
7.	UNIVER-SITY	4	1	3	1	-	-	9
8.	TRUSTEE	1	-	-	-	-	-	1
9.	SKM	-	5	-	1	4	1	11
10.	PBT	-	-	2	-	6	-	8
Subtotal		**25**	**30**	**30**	**17**	**42**	**31**	**175**
							Total	**175**

A total of 175 Solution Providers were registered nationwide under a variety of organizational types, highlighting the diverse expertise and collaborative capacity driving APPGM-SDG's Food Security initiatives. Sabah recorded the highest level of engagement with 42 Solution Providers, followed by the East and North zones with 30 each, Sarawak with 30, the Central zone with 25, and the South zone with 17. This regional distribution demonstrates active and widespread participation, with Sabah emerging as a particularly dynamic hub for community-led food security efforts.

In terms of registration type, the majority of Solution Providers were registered under the Companies Commission of Malaysia (SSM), accounting for 92 SPs, reflecting strong engagement from private businesses and entrepreneurial organizations. This was complemented by 35 SPs under the Registry of Societies (ROS),

indicating significant involvement from community-based and non-profit organizations. Other registration categories, including the Cooperative Commission of Malaysia (SKM), Registrar of Business (ROB), universities, local authorities (PBT), and trustee organizations, provided additional technical, educational, and governance support. Overall, the registration data highlights a balanced mix of private, cooperative, and community participation, underscoring APPGM-SDG's inclusive, multi-stakeholder approach to sustainable food security across Malaysia.

Monitoring and evaluation remain central to ensuring the sustainability and effectiveness of all initiatives. Throughout 2024, systematic field visits were conducted across all regions to track project progress, assess community engagement, and identify emerging challenges. These visits enabled the Secretariat to provide timely guidance and technical support to SPs, ensuring projects were implemented according to best practices. In parallel, APPGM-SDG is advancing a dedicated Impact Evaluation Framework, with resource persons currently being appointed to support rigorous data collection, analysis, and reporting. This framework will measure long-term effects on food security, livelihood improvements, and community capacity-building, feeding directly into policy development, replication strategies, and national SDG reporting.

Through this integrated approach combining participatory project design, diverse farming methods, multi-stakeholder partnerships, and structured monitoring and evaluation APPGM-SDG continues to strengthen Malaysia's food resilience, empower grassroots communities, and demonstrate a model for sustainable, inclusive, and context-sensitive development.

IPOH MODEL FARM

TOGETHER WE GROW: THE IPOH MODEL FARM COMMUNITY INITIATIVE

On May 19, 2023, the APPGM-SDG Secretariat, together with the Member of Parliament for Ipoh Barat YB Tuan M. Kulasegaran, the Mayor of Ipoh Datuk Rumaizi Bin Baharin @ Md Daud, and officials from the Ipoh City Council (MBI), held a meeting to address issues identified in Kampung Tai Lee and Jalan Spooner. From these discussions, all parties agreed to utilize land leased to the Persatuan Sahabat Cinta Alam Malaysia (PSCAM) for an urban community farming initiative.

By July 2023, this vision came to life with the launch of the Ipoh Model Farm at Kampung Tai Lee, Silibin Avenue, Ipoh. More than just farming, the initiative was designed to empower the local community, promote sustainable practices, and serve as a model for future community-driven efforts in Malaysia.

Through the collaboration of APPGM-SDG, MBI, the MP of Ipoh Barat, and the residents themselves, a one-acre plot of land was transformed into a vibrant agricultural hub, marking the birth of a meaningful initiative that shows how collective effort can build both sustainability and community.

Planting and Harvest

The first planting yielded a total sales value of RM15,844.92 from 2 tons of red chilies grown in 2,400 polybags (July–December 2024). The second planting introduced ridge gourd (petola) and cucumber, with harvests of 717 kg and 3,109 kg respectively, worth RM44,190. In addition, 104 kg of mini eggplant and 89 kg of round eggplant were harvested. Notably, the first round of harvests from all crops was distributed to the community.

Community-Based Plant Care Initiative

Launched on June 1, 2024, this program engaged 15 active participants in sustainable farming, directly contributing to SDG 2: Zero Hunger by enhancing food security. Weekly allowances encouraged participation, ranging from RM20 for two hours of work to RM40 for four hours, aligning with SDG 8: Decent Work and Economic Growth. From July 2025 onwards, the initiative continued with 12 dedicated community participants.

Key Milestones and Events

The community came together for a seedling activity on 16th April 2025, planting terung bulat (round eggplant) and mini eggplant. This hands-on session, led by project participants, reflected the strong sense of ownership and active involvement of the community in the Ipoh Model Farm initiative.

The Transplant Ceremony and Distribution of Harvest Yields to the Community was officiated by Prof. Datuk Dr. Denison Jayasooria, Head of the APPGM-SDG Secretariat, on 17th May 2025. The ceremony highlighted the importance of sustainable farming and marked a significant milestone in the farm's journey. All active members received RM500 per family from the total sales of the red chili harvest.

A delegation of 19 Kementerian Perumahan dan Kerajaan (KPKT) officers from across Peninsular Malaysia, together with residents of Hasbe Road, visited the farm on 4 July 2025. Led by YBrs. Encik Nurul Azuan, Deputy Secretary of the Community Wellbeing Division, the visit served as a valuable exchange of sustainable farming knowledge.

On 4th September 2025, representatives from Weil Hotel visited the farm to explore collaboration opportunities. The meeting also involved the Northern Zone 1 Director of Yayasan Kebajikan Negara, the Headmistress, and teachers of SJK(T) Sangeetha Sabha, and alumni representatives. The session concluded with positive commitments to support SDG-driven partnerships.

In October 2025, a planned student training will be conducted for Level 2 students of SJK(T) Sangeetha Sabha, providing them with hands-on exposure to cultivation and sustainable farming practices. This training aims to enhance their understanding of agriculture through practical learning experiences and interactive field activities.

The North Agri-Excellence 2025 Regional Training Farm program, was held on 12th October 2025, featured both theoretical and practical training sessions. Using Pertanian Lestari modules published by Food Security Unit, APPGM-SDG and guided by experts in their respective fields, the training brought together North Zone Solution Providers, participants of APPGM-SDG Food Security projects, students, community members, NGO representatives, and participants of the Ipoh Model Farm.

Challenges and Way Forward

The second planting, following the red chili harvest, was delayed due to sales updates from wholesale market buyers. Despite this, the planting was successfully carried out, and harvesting has been ongoing since April 2025.

The Four-Square Farming Initiative combining vegetables, fruits, and aquaculture also faced delays, as the neighbouring land tenant was slow to agree to the proposed use of the land. After prolonged discussions, the decision was made to apply directly to MBI to rent the land for the initiative, ensuring smoother progress in the future.

Harvesting The Future

The Ipoh Model Farm has shown how community-driven initiatives, supported by fair compensation and shared responsibility, can strengthen food security while fostering unity and resilience. More than just a farm, it has become a hub for learning, empowerment, and sustainable living directly contributing to the Sustainable Development Goals.

As it continues to grow, the Ipoh Model Farm stands as a source of inspiration, proving that with collective effort, sustainable agriculture can cultivate not only crops but also stronger, healthier, and more connected communities.

NORTHERN ZONE

ANIMAL BREEDING

Enhancing Egg Production and Sales While Reducing Feed Costs

The success of the DELIMA Phase 1 project ignited enthusiasm among participants who saw the potential of layer chicken farming to strengthen food security and improve household income. However, as interest in expanding egg production grew, participants also raised serious concerns about the rising costs of commercial feed. This challenge threatened to undermine profitability and discourage community members from continuing their efforts.

In response, Tiong Trove Family Farm (TTFF) introduced Phase 2 of the DELIMA initiative, a project designed not only to increase egg production but also to address the key financial barrier of feed costs. The proposed strategy revolved around three core innovations: constructing additional chicken coops to expand capacity, adjusting the chicken density per coop to optimize space and production, and producing alternative, low-cost feed using locally available ingredients. These measures aimed to ensure that participants could expand their operations without being weighed down by escalating expenses.

TTFF's involvement in the DELIMA project was grounded in extensive practical experience in poultry management and a commitment to empowering rural households. The farm had previously guided participants through Phase 1, ensuring they gained the confidence and skills necessary to rear layer chickens successfully. Building upon this foundation, TTFF positioned itself as a mentor and partner, providing not only technical guidance but also reassurance to participants who were still cautious after past disappointments with other government-led poultry projects.

For many rural households, previous ventures into chicken farming had failed due to poor planning, limited follow-up, and unrealistic expectations. Participants often invested time and resources only to find that projects ended prematurely, leaving them disillusioned. TTFF's credibility was built by showing tangible results from its own farm and by demonstrating transparency in costs, profits, and risks. By offering continuous guidance, TTFF restored participants' faith in the viability of small-scale poultry farming.

The primary challenge was psychological: convincing participants that this project would be different. Skepticism ran deep, as many had once been promised high yields and substantial profits but had experienced otherwise. TTFF tackled this head-on by using evidence, showing actual data, income records, and living examples from their own farm operations. This hands-on approach proved more persuasive than theory alone.

The second challenge was technical and financial: feed costs represented the largest expense in egg production. Commercial feeds were becoming increasingly expensive, eroding profit margins. To counter this, TTFF introduced training in producing alternative feeds. These feeds used cheaper, locally available resources such as grains, by-products, and natural additives, striking a balance between affordability and nutritional value for the chickens.

Another significant measure was the construction of additional chicken coops, each measuring 10 by 10 feet, enabling participants to house more chickens. By increasing the density from one chicken per 5 square feet to one per 4 square feet, participants could optimize the available space while maintaining animal welfare.

Finally, TTFF emphasized close monitoring. Trainers stayed engaged with participants for at least six months, covering the period until chickens began laying eggs. This approach prevented early dropout and instilled confidence as participants witnessed the gradual progress of their flocks.

The outcomes of Phase 2 exceeded expectations. Collectively, participants produced approximately 6,000 eggs per month, valued at around RM3,000. This achievement underscored the project's dual success: improving food availability while simultaneously generating reliable income. Eggs were consumed within households to enhance nutrition and were also sold within local communities, meeting a consistent demand for fresh produce.

Participants expressed profound satisfaction with the project. They appreciated the practicality of the farming model, which was low in cost, low in risk, yet capable of producing steady income. Many highlighted the sense of dignity and pride that came from contributing affordable eggs to their community while also supporting their families financially.

One of the most inspiring stories was that of Pn. Zainab, affectionately known as Kak Nab. Together with her husband, she managed her chicken coop diligently, achieving daily yields of 30 to 40 eggs. However, demand for her eggs consistently exceeded supply, leaving her unable to fully meet community needs. Rather than being discouraged, she saw this as an opportunity for growth. She is now planning to construct a third chicken coop, further scaling up her production. Kak Nab's story embodies the spirit of perseverance, demonstrating how small-scale projects can evolve into sustainable ventures with significant community impact.

The DELIMA Phase 2 project highlighted several important lessons. First, transparency and evidence are powerful tools in overcoming skepticism. Participants need to see real results, not just promises, to restore confidence in community-based projects. Second, feed innovation is crucial for sustainability. By producing their own feed, participants reduced dependency on expensive external suppliers and safeguarded their profit margins. Third, close mentorship and monitoring ensured participants remained motivated during the critical early months.

Another key takeaway was the importance of aligning projects with local demand. Eggs are a staple in most households, ensuring that participants had a ready and consistent market. By linking production with local consumption, the project avoided the pitfalls of oversupply or lack of buyers, challenges that often undermine other small-scale farming efforts.

The DELIMA Phase 2 project has demonstrated that small-scale layer chicken farming can be both profitable and sustainable when guided by experienced mentors and adapted to local conditions. Through innovative solutions such as low-cost feed production and efficient coop management, participants were able to increase egg yields, reduce costs, and gain financial independence.

More importantly, the project empowered rural households to rediscover their confidence in farming as a viable livelihood. By combining technical training with trust-building and continuous mentorship, TTFF helped participants overcome past disappointments and achieve tangible success. The story of Kak Nab stands as a testament to the resilience and determination of rural farmers when given the right support and resources.

Ultimately, the DELIMA initiative goes beyond egg production. It symbolizes the power of community-based solutions to address economic challenges, promote food security, and foster dignity among participants. It proves that when innovation, trust, and commitment come together, small-scale projects can achieve remarkable results with long-lasting impact.

TIONG TROVE FAMILY FARM

Parliament: Tanjong Malim, Perak
Project Title: Enhancing Egg Production and Sales while Reducing Feed Costs (DELIMA Phase 2)
Funding Allocation: RM80,000
Email: cooltiongmas@gmail.com

AGRICULTURE

KRT Idaman Community Greenhouse

In recent years, community farming initiatives have emerged as powerful tools to address food security and strengthen neighborhood ties. One such effort, the KRT Idaman Community Greenhouse Project, was established to empower households in Taman Chemor Idaman, Perak, particularly targeting B40 families, women, and single mothers. The project's goal was not only to increase household income through small-scale agriculture but also to inspire greater community cooperation and responsibility in managing shared resources.

The initiative was guided by the solution provider, who had demonstrated expertise in cultivating okra, eggplant, and chili, achieving notable sales within just one year. With prior experience working on larger-scale farms and establishing automated irrigation and fertilization systems, the trainer was well-prepared to transfer knowledge to community participants. Their approach emphasized not just technical farming practices but also innovative ways of making agriculture manageable in limited spaces.

The project involved a diverse group of participants: three self-employed men from B40 households, five women who were housewives with no income, and two single mothers. This composition reflected the social goals of the project to uplift vulnerable groups by giving them practical skills that could

contribute both to their families' sustenance and to the larger community.

For many of these participants, this was their first structured farming experience. While they had basic knowledge of growing vegetables at home, few had been exposed to organized greenhouse management. As such, the project not only offered technical training but also created a platform where participants could develop confidence, leadership, and teamwork.

The project faced several challenges from the start. The most pressing was the limited open space available for farming. Given the urban setting, participants could not expand fields in the way that traditional farms might. Moreover, being an open community space, the area was vulnerable to stray animals, vandalism, and other disruptions.

The solution provider and participants tackled these issues by focusing on resource maximization and protection. The group discussed installing fences to safeguard crops and prevent unwanted interference. More importantly, they adopted DIY methods to make the most of limited space. Crops were planted in polybags and hydroponic systems to optimize yields per square foot. The team also invested in learning efficient cultivation methods, including soil health management and crop rotation, to ensure continuous productivity.

These strategies turned constraints into opportunities. Participants learned that farming success does not always depend on land size but on creativity, collaboration, and efficient use of available resources.

The project produced a diverse range of vegetables, including lettuce, mustard greens, Japanese cucumbers, kangkung, pak choy, okra, and eggplant. Over a period of five months, yields were valued at approximately RM4,000. While the monetary return was modest, the real value lay in the empowerment it created. For many participants, this represented their first additional income stream, an achievement that was deeply meaningful.

Harvests were shared equally among participants, with attendance and contributions factored into the distribution process. This approach fostered fairness and accountability while strengthening the spirit of teamwork. Even those who received modest portions valued them highly, as they symbolized both the fruit of collective labour and the start of a journey towards greater self-reliance.

Some participants took the lessons further by starting small gardens at home, planting vegetables for household consumption and, in some cases, selling surplus produce. These home-based extensions of the community greenhouse demonstrated the project's multiplier effect, where knowledge gained in one setting spreads into others, amplifying overall impact.

One notable participant, Mr. Mohamad Rasol Ismail, shared how the project transformed his outlook on agriculture. Initially, he had little exposure to modern farming methods. However, after undergoing training and actively engaging in the greenhouse, he became confident in techniques such as hydroponics and polybag planting. Today, he serves as an informal role model for others in the community, showing that with dedication and teamwork, even small-scale farmers can achieve meaningful success.

His story illustrates the broader impact of the project: beyond producing vegetables, it created local champions who could inspire others and sustain momentum in community-based agriculture.

The project highlighted several important lessons. Patience is crucial in farming, especially when working with limited resources. Participants discovered that success comes gradually and requires consistent care. Teamwork emerged as another key factor; the greenhouse could only function effectively because participants collaborated, shared tasks, and respected one another's contributions. Finally, the role of trust and responsibility became clear. As custodians of the community greenhouse, participants recognized their duty not only to themselves but also to each other.

Motivation to continue stemmed from the joy of achieving tangible results and the pride of contributing to household income. For women, particularly housewives and single mothers, the greenhouse offered a sense of independence and purpose. For the men, it demonstrated that farming could be a respectable and viable livelihood, even on a small scale. Collectively, the participants expressed their determination to expand the project, improve yields,

and transform their community garden into a model for others.

The KRT Idaman Community Greenhouse project has proven that even small plots of land can make a big difference when guided by innovation, teamwork, and dedication. By providing B40 households with skills and opportunities, it created both economic and social benefits. The project encouraged participants to view farming not merely as ubsistence but as a pathway to empowerment, community bonding, and long-term resilience.

What started as a modest initiative has now sown the seeds of change in Chemor Idaman. Participants have gained not only food and income but also confidence, hope, and a renewed belief in the potential of agriculture to transform lives. With continued support and collective determination, this project can grow into a beacon for other communities seeking to build sustainable, inclusive futures.

KRT TAMAN CHEMOR IDAMAN

Parliament: Tambun, Perak
Project Title: KRT Idaman Community Greenhouse
Funding Allocation: RM40,000
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AGRICULTURE

Pesticide-Free Chili Farming Through Fertigation

The demand for pesticide-free crops has grown rapidly as consumers become more conscious of health and food safety. Responding to this need, Chili Ipoh Agro introduced a chili farming initiative that relies on fertigation technology while eliminating the use of chemical pesticides. This project not only provided participants with new skills in modern agriculture but also promoted sustainable practices that safeguard both the environment and consumer health.

With over 19 years of farming experience, including 12 years focused on chili cultivation, the solution provider brought extensive knowledge to the initiative. Certified with MyGAP and equipped with a unique Standard Operating Procedure (SOP) for chili planting, Chili Ipoh Agro positioned itself as a reliable mentor for participants. The trainer's credibility was further strengthened by his diverse background in farming, which included animal feed, organic bran silage, organic vegetables, and corn production. This wealth of expertise reassured participants that they were learning from a proven practitioner with a deep understanding of agricultural systems.

The project attracted 10 male participants, most of whom were factory workers, general laborers, or small-scale farmers. For many, this was their first exposure to a structured modern farming method such as fertigation. Their motivation stemmed not only from the potential income but also from the desire to learn sustainable techniques that could eventually be applied on their own plots of land.

The participants represented a cross-section of individuals seeking to diversify their livelihoods. While some hoped to reduce dependence on their current jobs, others aspired to establish farming as a long-

term source of income. The collective energy and curiosity created a dynamic learning environment, even as the group faced significant challenges along the way.

One of the greatest hurdles was the outbreak of fungal disease among the chili plants. Left unchecked, the fungus posed a serious threat to the entire crop, raising fears of total loss. This challenge was not only technical but also emotional; for first-time participants, the possibility of losing their crops so early in the process was discouraging and risked dampening their enthusiasm.

The solution provider acted swiftly, guiding participants through practical mitigation strategies. The first step was to harvest green chilies before they could fully ripen into red chilies. Though this reduced the expected maturity stage, it helped prevent the disease from spreading across the plantation. Fortunately, market demand for green chilies was strong, ensuring that the premature harvest still yielded valuable returns.

At the same time, the group introduced an alternative crop in a backup plot of 1,000 polybags. This provided participants with additional security against potential losses and illustrated the importance of diversification in farming. By integrating loofah cultivation, participants learned that agricultural resilience depends on adaptability and the ability to pivot strategies in the face of setbacks.

The combined efforts paid off. A total of 1,366 kilograms of green chilies were successfully harvested, generating RM14,499 in sales. This outcome was a major morale booster for participants, proving that even when circumstances force changes to the plan, determination and proper guidance can still deliver rewarding results.

The profits were distributed fairly among participants according to their contributions. This transparent system reinforced a sense of trust and collaboration within the group. It also ensured that every participant felt recognized and motivated to continue engaging with the project.

The learning outcomes were as valuable as the financial returns. Participants gained hands-on experience in proper harvesting, grading, and marketing of chili. They learned how careful grading could significantly increase market value and how to meet buyer

buyer expectations for quality and consistency. These skills equipped participants with a stronger foundation for future farming ventures.

While the project succeeded in terms of yields, most participants admitted that they were not yet ready to begin independent farming ventures. They felt that needed additional training and exposure before managing such a project on their own. Nonetheless, they expressed strong interest in eventually applying what they had learned.

One participant highlighted that the project gave him valuable insight into fertigation farming. Although he had previously considered agriculture too risky, this experience changed his perspective. He realized that with the right support systems, modern techniques, and crop diversification, farming could be both profitable and sustainable.

Several lessons emerged from the chili fertigation project. First, organic pest and disease management is crucial in protecting crops while maintaining sustainability. The project reinforced the importance of non-chemical methods to ensure healthier produce and safer farming practices. Second, diversification proved to be an essential risk management strategy. By introducing angled loofah as a backup, participants learned that flexibility can safeguard livelihoods even in uncertain conditions. Third, collaboration and fairness in profit-sharing strengthened trust and commitment within the group.

The motivation to continue lies in the potential of modern, pesticide-free farming to provide stable income, healthier food, and environmental benefits. For participants, the project has planted the seed of confidence, they now believe that with further training, they can transition into self-reliant farming. For the solution provider, the experience reaffirmed the value of teaching sustainable agriculture and building resilient communities.

The Pesticide-Free Chili Farming through Fertigation project demonstrated that modern farming techniques can overcome traditional challenges when coupled with innovation, adaptability, and mentorship. Despite the setbacks of disease outbreaks, participants

achieved impressive yields and gained invaluable skills in farming, marketing, and risk management.

Beyond the tangible results, the project instilled a mindset of sustainability and resilience. Participants came away with a deeper appreciation of organic practices, the importance of quality assurance, and the potential of agriculture as a long-term livelihood strategy. Although many are still in the learning phase, their enthusiasm to continue suggests that this project has sparked a transformation in how they view farming.

This initiative shows that sustainable agriculture is not only about producing crops but also about empowering people, nurturing resilience, and ensuring food security for future generations.

CHILI IPOH AGRO

Parliament: Tambun, Perak
Project Title: Pesticide-Free Chili Farming through Fertigation
Funding Allocation: RM40,000
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AGRICULTURE

Community Aquaponics Towards Sustainability and Food Self-Sufficiency

The increasing demand for sustainable food systems has encouraged new approaches in modern agriculture, particularly in urban and semi-urban communities where space is limited and food security is a pressing concern. Recognizing this, Kairos Harvest Sdn Bhd took the initiative to champion aquaponics, a farming method that integrates aquaculture and hydroponics as a pathway to empower communities, reduce dependency on external food sources, and promote healthier living.

The solution provider, Kairos Harvest, has invested more than three years in refining aquaponics systems specializing in tilapia and vegetable cultivation. Their efforts have resulted in the successful development of innovative farming models, including the production of over 3,000 terrarium boxes containing plants nurtured through aquaponics and hydroponics. These were marketed both as commercial products and as part of corporate social responsibility (CSR) initiatives. In collaboration with the former Member of Parliament for Permatang Pauh, the company extended its social impact by distributing tilapia to the B40 community, ensuring that low-income households could benefit from nutritious, affordable protein sources.

Beyond aquaponics, Kairos Harvest has also ventured into smart vanilla farming. With four years of experience cultivating over 15,000 vanilla plants, they have integrated Internet of Things (IoT) technologies to manage farms more efficiently, while adopting sustainable practices such as chemical-free fertilization, rainwater harvesting, and composting of farm waste. Through collaboration with Yayasan Inovasi Malaysia, SME Corp, and the Permatang Pauh

Parliament Office, Kairos Harvest has expanded its reach by introducing mobile vanilla farms to households and schools, further solidifying its reputation as a pioneer in sustainable community agriculture.

The aquaponics project brought together a diverse group of participants, including two senior citizens, a single father, a single mother, three youths, a retired army officer, and two housewives. This mix of backgrounds ensured a rich exchange of perspectives and experiences, as well as a sense of inclusivity that reflected the community spirit underpinning the project.

For many participants, aquaponics was a completely new concept. While they were eager to learn, differences in learning pace created challenges. Elderly participants sometimes struggled to keep up with technical terms and practical tasks, requiring trainers to repeat lessons. Scheduling training sessions was also difficult, as participants had different personal commitments, and some practical sessions moved at a slower pace than planned.

These obstacles, however, became opportunities for Kairos Harvest to refine their approach. They introduced a structured revision system, dedicating the first 30 minutes of each new session to revisiting earlier lessons. Feedback forms were distributed at the end of every training day, enabling continuous improvement in teaching methods. Trainers also encouraged active participation through group discussions and messaging platforms, where participants could ask questions and share updates. Meals were provided during training sessions to create a comfortable environment, and trainers offered words of encouragement to keep morale high.

The project's challenges were not only educational but also social. Scheduling sessions required balancing the needs of elderly participants with the faster pace of younger ones. Practical sessions, such as handling water systems and planting, often took longer than expected. Additionally, some participants expressed uncertainty about whether aquaponics could truly provide long-term food security and income.

To overcome these hurdles, Kairos Harvest emphasized repetition and consistency. By revisiting earlier lessons, participants gradually built confidence in their understanding of aquaponics. The use of group chats allowed trainers to provide reminders and answer questions

between sessions, reinforcing knowledge beyond the classroom. Motivation was also nurtured through recognition; small words of praise were given to participants who demonstrated progress, reinforcing their sense of achievement and belonging.

Another strategy was to link the project to participants' broader aspirations. Trainers explained how aquaponics could reduce household food expenses, improve nutrition, and even create opportunities for small-scale income generation. By aligning the technical aspects of aquaponics with participants' personal goals, the project cultivated not only skills but also motivation to continue beyond the training period.

Despite the initial challenges, the project produced encouraging results. Participants successfully harvested vegetables at an average of 2 kilograms per month, while tilapia grew to weights of approximately 450 grams. Importantly, Kairos Harvest purchased the harvested fish for processing into fillets, providing participants with an assured market channel. This arrangement demonstrated the economic viability of aquaponics and reduced uncertainty about where to sell their produce.

The project also fostered a strong sense of satisfaction and pride among participants. They expressed joy in being able to produce their own food and gratitude for the opportunity to learn a modern farming system. Beyond the tangible yields, the intangible benefits were knowledge, confidence, and community spirit, were equally significant. Participants now understood how aquaponics could contribute to long-term food security and better nutrition for their families.

One particularly inspiring story came from a retired army officer who joined the program. Living in a modest housing estate, he initially doubted whether aquaponics could be implemented at home. However, after gaining hands-on experience, he realized that even with limited space, it was possible to raise fish and vegetables simultaneously with minimal costs. He expressed his amazement at

how little water and energy the system required compared to traditional farming methods. His testimony not only highlighted the practicality of aquaponics but also demonstrated how the project could change mindsets, turning skepticism into confidence.

Several key lessons emerged from this initiative. First, structured repetition and consistent feedback are crucial when training participants with diverse learning abilities. Second, aquaponics systems can be successfully implemented in small, urban spaces, proving that food security is not limited to rural farming areas. Third, community-driven approaches that combine technical training with emotional support can greatly increase participation and retention.

KAIROS HARVEST SDN BHD

Parliament: Permatang Pauh, Penang
Project Title: Community Aquaponics Towards Sustainability and Food Self-Sufficiency
Funding Allocation: RM40,000
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INTEGRATED FARMING

Integrated Chili and Gac Cultivation at Oku Community Centre Perlis

The Integrated Chili and Gac Cultivation Project at the OKU Community Centre in Perlis stands out as a pioneering initiative that combines inclusivity, innovation, and sustainability. Spearheaded by the Pertubuhan Orang Kurang Upaya Negeri Perlis, the project was specifically designed to empower People with Disabilities (PWD) by creating accessible gardening spaces where they could engage in productive and meaningful activities.

The concept went beyond farming; it aimed to promote social inclusion, strengthen community bonds, and provide participants with opportunities to acquire skills and generate income. By cultivating crops such as Gac fruit (Momordica cochinchinensis) a superfruit rich in Vitamin A and beta carotene, the project also tapped into a growing market for health-focused produce. This positioned the initiative not only as a community empowerment effort but also as a venture with strong commercial potential.
The project involved 10 participants, all of whom were PWDs with diverse abilities and backgrounds. Some lived with physical disabilities such as limited mobility, while others faced cognitive challenges. Despite these differences, the project created a common ground where all participants could contribute in ways suited to their strengths.

Beyond farming, the project served as a social platform, allowing participants to interact with one another, build confidence, and experience the joy of shared achievement. Families and caregivers also played a supportive role, ensuring that participants felt included and motivated throughout the journey. This holistic approach underscored the importance of community solidarity in sustaining inclusive initiatives.

Running an inclusive farming project came with unique challenges. Not all participants were physically able to perform heavier tasks such as clearing land or handling equipment. Others required additional time and support in learning farming techniques due to differences in cognitive ability. Limited attention spans and competing commitments, such as part-time jobs, sometimes affected attendance and consistency.

The solution was a combination of adaptation, creativity, and collaboration. Tasks were divided according to ability, with heavier labor outsourced to hired workers when necessary. Written instructions and repeated demonstrations were used to enhance communication and comprehension. Weekly schedules were made flexible, allowing participants to contribute at their own pace.

Most importantly, the project created an environment where patience and encouragement were prioritized. Rather than focusing on limitations, the solution provider emphasized the unique contributions of each individual, ensuring that everyone felt valued.

The cultivation of 150 Gac plants proved to be a success. Within the project timeline, 50 fruits were harvested, of which 40 were used to produce new seedlings and expand the farm, while the remaining 10 fruits valued at RM80 were sold to Rockherbs Industry Sdn Bhd. This partnership provided an assured market, giving participants the confidence that their produce had tangible value.

The chili component of the project, however, faced setbacks due to disease outbreaks and resource constraints. Despite these challenges, the emphasis on Gac farming helped maintain the project's momentum. By focusing on a crop that is both low-maintenance and high-value, the project secured a sustainable pathway for future expansion.

Participants expressed gratitude for the opportunity to engage in agriculture in a way that suited their abilities. One member remarked that being part of the project allowed him to realize that even with physical limitations, he could still grow crops, contribute to a team, and take pride in meaningful achievements.

Families and caregivers echoed these sentiments, highlighting that the project gave participants a renewed sense of purpose and identity. The joy of harvesting fruits and contributing to a commercial supply chain-built confidence that extended beyond the farm.

The project demonstrated that farming can be inclusive when approached with flexibility and empathy. Several key lessons emerged:

1. Inclusivity is achievable, with creative adaptation, PWD can actively participate in farming.
2. Patience and collaboration are vital, success depends on building a supportive environment that values every contribution.
3. Market assurance encourages sustainability, by partnering with buyers like Rockherbs, participants gained both confidence and income.
4. Resilience matters, even when chili cultivation failed, the project pivoted towards Gac farming, showing adaptability in the face of challenges.

The motivation to continue stems from the project's ability to combine social empowerment with economic potential. For participants, farming has become more than an activity, it is a pathway to independence, dignity, and recognition.

The Integrated Chili and Gac Cultivation Project at the OKU Community Centre in Perlis has proven that agriculture can be a transformative tool for inclusion and empowerment. By creating accessible farming spaces and focusing on high-value crops like Gac, the initiative successfully engaged PWD participants in productive, rewarding work while also laying the foundation for a sustainable business model.

Although challenges were encountered, particularly with chili farming, the resilience of both the participants and the solution provider ensured that the project continued to thrive. With its blend of inclusivity, innovation, and economic foresight, this initiative stands as a best practice for how agriculture can be harnessed not just for food production but also for building stronger, more inclusive communities.

PERTUBUHAN ORANG KURANG UPAYA NEGERI PERLIS

Parliament: Padang Besar, Perlis
Project Title: Integrated Chili and Gac Cultivation at OKU Community Centre Perlis
Funding Allocation: RM40,000
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EAST COAST ZONE

ANIMAL BREEDING

Empowering Communities Through Sustainable Poultry Farming

Poultry farming in Malaysia includes the broiler chicken, free range chicken, and duck industries. This industry is very important, especially chicken farming which contributes more than 95% of the total livestock in the country and is the main source of protein for Malaysians. This Sustainable Community Poultry Farming Project focuses on helping and empowering the B40 group economically through Poultry Farming whether it is free-range chicken, duck or other types of poultry that have the potential to be developed.

The Solution Provider, Encik Hariz Danial is a Head of Economic Empowerment Sector, Operations Department, in YAYASAN KEBAJIKAN MUSLIM (MYFUNDACTION). He was registered as our Solution Provider since 2024, he has 10 years experienced in raising village chickens in the backyard and successfully raised more than 1,000 chickens and marketed the produce to the surrounding population and he also successfully bred various types of ornamental chickens for the market in Malaysia. In addition, he obtained the Kampung Chicken Entrepreneur Course certification in 2022 under HRD Corp.

He managed this project with 10 participants from B40 group in Kampung Ulu Kusial, Tanah Merah, Kelantan. Every participant was getting their own chicken coop at their land or house area. Through this project, each participant will receive theoretical and practical guidance in managing a livestock project, producing their own sources of livestock feed and alternative sources of livestock feed through Effective Microorganism (EM) production techniques, planting Madre De Agua Trees (Ketum Ayam) and various other alternative food sources. Each participant will also be guided with strict monitoring on

a monthly basis in managing livestock farming, livestock feed production and livestock sales, while also hoping to increase their income and strengthen the local community economy.

Participants underwent 12 structured training modules covering poultry management, feed formulation, disease control, biosecurity, branding, packaging, and marketing. A phased, modular training approach with both theory and hands-on practice ensures participants not only gain knowledge but also confidence to apply it. Certification through partnerships with training institutes further motivates commitment. Each participant received 200 chicks, feed, and basic equipment, accompanied by training and continuous monitoring. To maintain the sustainable of this project, the project needs to have a continuous and evaluation such as monthly monitoring visits documented farm conditions, animal health, and participant challenges. This allowed early intervention, e.g., addressing disease outbreaks or infrastructure weaknesses.

The project faced several key challenges, including flooding from heavy rain that threatened poultry farms, difficulties in maintaining hygiene and livestock health, aging and poorly maintained coops, low participant commitment during training sessions, and limited understanding of modern technical terms. To address these, the team implemented practical solutions such as constructing elevated coops and relocating chickens to safer areas during floods, encouraging the use of EM probiotics to improve cleanliness and control flies, guiding participants to repair and upgrade their coops, providing training notifications at least seven days in advance to ensure better attendance, and delivering clearer explanations of technical terms with adjustments to the local Kelantan dialect to enhance understanding.

From this initiative, each participant now manages their own chicken coop and is earning a steady monthly income of RM1,000 to RM1,500. The active collaboration between the Solution Provider, local communities, and NGOs demonstrates a strong commitment to economic empowerment and long-term sustainability. With the

project ongoing, it continues to build resilience and improve livelihoods in the community. This project provides clear and measurable income for participants every month, as the eggs or chickens produced can be sold directly to neighbours, markets, or local shops.

YAYASAN KEBAJIKAN MUSLIM (MYFUNDACTION)

Parliament: Tanah Merah, Kelantan
Project Title: Projek Penternakan Unggas Komuniti Mampan (Sustainable Community Poultry Project - SCoPP)
Funding Allocation: RM40,000
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ANIMAL BREEDING

Sustainable Community Goat Farming for Rehabilitated Community

The Sustainable Community Goat Farming Project, implemented by KOMITED Malaysia, engages 10 rehabilitated former drug dependents in livestock rearing as a means of economic empowerment, therapy, and reintegration. These participants are permanently recovering drug addicts, namely KOMITED clients, who have past problems, whether family, work or community problems. With this livestock project, it can be a training ground for participants in preparing themselves and can reduce the gap before returning to society. Through this project, participants can learn ways to generate income for the sustainability of their future lives, in addition to providing them with career opportunities.

This phase 2 project will begin by focusing on cleaning up nearby areas to expand the existing project. 10 clients in KOMITED Malaysia from phase 1 will continue this livestock project and sustainable economic generation will be supervised by KOMITED Malaysia. After the successful implementation of phase 2, this project will benefit not only the KOMITED Malaysia clients involved but also as a source of income for the KOMITED Malaysia community. The expansion of this project is expected to provide a platform for the target group, namely KOMITED Malaysia clients, for them to remain healthy, knowledgeable, and capable in empowering human capital. In addition, it can also prepare them to generate additional income upon their return to their families

and communities by equipping them with human values and identity in strengthening the economy.

Participants were involved in practical activities such as field sessions with veterinary officers for the goat's healthcare, educational visits like learning from established farms that owned by Encik Zainal in Sg. Lembing. They also learned about Halal slaughtering training to strengthen technical and religious compliance. Other practical activities are marketing and sales sessions to expose participants to business opportunities and this structured approach improved knowledge transfer and boosted participants' confidence to run their own farms in the future.

For this phase 2, they have added another 30 goats and each participant will take care of 3 goats. They have also started planting napier grass and oil grass around the barn area as additional food to save on goat feed costs, in addition to pallet feed and bran being the main food source. They have a plan to coordinate the care and sale of goats within 1 month and the sale will be targeted once a month in large quantities (HUB). Parent breeding monitoring will always be monitored until there are enough goats to carry out the HUB sale as planned. However, sales revenue is expected to increase after the planned HUB is underway.

Direct feedback from participants highlights the effectiveness of this approach. For instance, one participant expressed confidence in pursuing goat farming independently, while another viewed the project as a valuable opportunity to build a sustainable livelihood. Such testimonials reinforce the project's real impact in transforming lives.

Participants' Feedback:

'Saya pada asalnya tiada langsung pengalaman dalam penternakan, namun banyak yang saya belajar di sini dan saya yakin saya mampu untuk meneruskannya'

KOMITED MALAYSIA

Parliament: Kuantan, Pahang
Project Title: Projek Ternakan Kambing KOMITED
Funding Allocation: RM40,000
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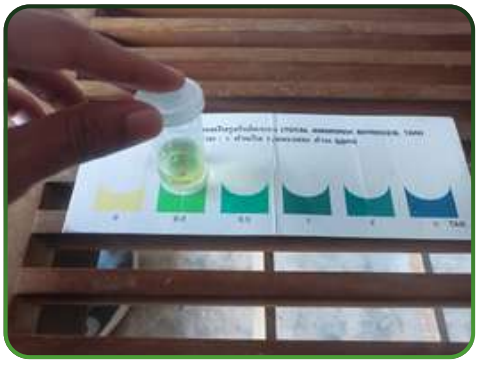
ANIMAL BREEDING

Sustainable Patin Fish Seed Rearing in Circular Canvas Ponds

Serandu Aquaponic System Sdn Bhd in P083 Kuantan, Pahang has taken steps to assist the community in carrying out livestock projects that call as "Ternakan Asuhan Benih Ikan Patin Dari Saiz 1 Inci Ke Saiz 4 Inci Dalam Kolam Bulat Kanvas". This project has 10 male participants from age 20 until 55 years old and they are from B40 group communities. The organisation has more than 10 years' experience in livestock project and before this they are a supplier for system and build livestock and IoT systems for community projects.

At the beginning of this project, they started with seeds production because the demand is high in Pahang in other words demand exceeds production, but we have planned to build a fish fishing pond and cages to raise the fish seeds that are produced until the size reaches 1 kg each for the restaurant market. This project has trained participants to build fish ponds and how to raise fish from seedlings to maturity. It can also help in terms of increasing side income after the seedlings or mature fish are sold to customers.



Since many of the participants are youth, the management of this project has been done by them from the beginning of site preparation, canvas ponds, water pipe installation, water quality check (pH quality), identify fish grade and others steps to the care of farmed fish. Therefore, the participants during the phase 2 project are mostly from the youth

group and they are very interested in this project because in addition to gaining knowledge about fish farming, they have also become small-scale fish seed entrepreneurs. The number of fish seedlings included in the first round is 50,000 fish for the first 5 canvas ponds. The participants will ensure that each fish is according to the grade and size set for each pond and ensure that the pH of the water quality is always appropriate and maintained. In addition, the participants also schedule feeding 4 times a day.

They also faced a challenge where a number of fish died due to water quality being affected by sudden heavy rain. As a precautionary measure, they decided to start selling 3-inch fish seedlings to wholesalers. Until the fourth month, they managed to get fish seedlings sales reaching RM10,000 by selling to wholesalers around Kuantan and nearby areas.

This project was given the opportunity to carry out an Agribusiness project where it was more about marketing management for the project because during phase 1 of this project, it had received high sales due to popular demand and successfully opened up business opportunities and side income for the participants. For the Agribusiness project, this canvas fish pond has been expanded with 5 large ponds and several additional small ponds to facilitate the fish breeding process and bring in new types of fish such as Tilapia. The participants for this Agribusiness project are still the same participants where the youth are very interested and realize that this project is very helpful in terms of improving skills, knowledge and also main or side income.

In conclusion, this fish seed farming project is very in high demand especially in the Kuantan area since Patin Fish is very famous in the State of Pahang. So, supplying quality fish seeds can guarantee high demand in the long term.

SERANDU AQUAPONIC SYSTEM SDN. BHD.

Parliament: Kuantan, Pahang
Project Title: Ternakan Asuhan Benih Ikan Patin Dari Saiz 1 Inci Ke Saiz 4 Inci Dalam Kolam Bulat Kanvas
Funding Allocation: RM40,000
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AGRICULTURE

Empowering Indigenous Communities Through Sustainable Mushroom Farming

The "Empowering Indigenous Communities through Sustainable Mushroom Farming" project, carried out in Kg. Sg. Mok, Kuala Rompin, Pahang, under the APPGM-SDG Food Security initiative, aimed to build capacity among the Orang Asli community through sustainable farming practices. This project offers a sustainable solution to the economic challenges faced by indigenous communities by providing a low-cost, high-yield farming alternative. Mushroom farming requires minimal space and resources, making it accessible and manageable for the community.

This project involved 10 participants from indigenous community including farmers, housewife, smallholder and general worker. This project was providing training and equip 10 indigenous participants with the skills and knowledge needed for successful mushroom cultivation through comprehensive hands-on training. For this project, the location of cultivation houses (Rumah Cendawan) has some issues in hygiene because of they used the abandon house. So, they take some initiative to maintaining strict cleanliness in cultivation houses was identified as a critical success factor. By emphasizing handwashing, tool sterilization, and workspace hygiene, participants effectively minimized contamination risks such as green mould (Trichoderma). This practice ensured consistent yields and higher quality produce.

Before undertaking this mushroom plant project, Aspirasi Lestari will host a graduation ceremony to honour all Rumah Cendawan participants who successfully completed the mushroom farming program, awarding each a Certificate of Recognition for their dedication. For many, this is their first formal certificate despite

attending numerous government-led programs, which previously hindered their ability to secure financial assistance from private and government institutions. This certificate aims to empower participants, particularly female participants like single mothers and housewives, by enhancing their eligibility for financial support, fostering sustainable development, and promoting future growth opportunities.

1,000 mushroom block as a first cycle for this project was conducted by participants. They learned how to manage the mushroom block, to spot issues early, like mold by inspecting mushroom blocks every day and removing bad blocks to saves the rest. This is simple solutions that can make a big difference for the results and harvesting.

Innovation in mushroom-based products such as the production of Pekasam Cendawan Tiram was opened new income streams and expanded market opportunities. This practice demonstrated how traditional knowledge, when combined with modern market access, could generate higher returns and resilience for rural communities. One participant turned fresh mushrooms into Pekasam Cendawan Tiram, a skill she learned from her family. She started by sharing it for free, and now sells to friends in Kuala Lumpur at RM50/kg. Well below the Shopee price of RM89.90/kg. In April, she sold 30kg, earning RM1,500. This result went beyond our expectations, and we're proud that Aspirasi Lestari helped make it happen.

Participants successfully built relationships with government agencies (e.g., Department of Agriculture, JAKOA), local cooperatives, and media partners such as AsyikFM. These networks not only provided technical support but also enhanced visibility and confidence, particularly among women participants. JAKOA extends its congratulations to APPGM-SDG and Aspirasi Lestari for their trust in the Orang Asli community and their successful completion of the program. JAKOA firmly believes that the Orang Asli deserve equal opportunities as all other communities and possess the same potential to achieve success.

The project highlighted that community-based farming initiatives thrive when they integrate hygiene discipline, proactive monitoring, inclusivity, product innovation, networking, and structured systems. These best practices not only improved harvest outcomes and income levels but also strengthened the confidence, skills, and resilience of the Orang Asli participants. The combination of traditional knowledge, modern farming techniques, and supportive networks positions this project as a model for future community-driven sustainable agriculture initiatives in Malaysia and beyond.

ASPIRASI LESTARI

Parliament: Rompin, Pahang
Project Title: Empowering Indigenous Communities through Sustainable Mushroom Farming
Funding Allocation: RM40,000
Email: aspirasilestari@gmail.com

INTEGRATED FARMING

Integrated Agriculture for Janda Baik Community

AJKIVN Enterprise, an organization that carries out programs involving the Janda Baik Agricultural Community. This project is a phase 1 project where it involves the community in the Kampung Janda Baik area, Bentong, Pahang. This project carries out Integrated Agriculture for the Janda Baik Community where they carry out small-scale farming and animal husbandry activities. The project successfully integrated multiple components such as Ginger (Halia Bentong), Bunga Kantan, Ayam Kampung, Jagung, Sorghum, Azolla and Black Soldier Fly (BSF). This diversification reduces dependency on a single crop and ensures continuous income streams.

This project involved 10 participants where they were very committed and had the enthusiasm and desire to continue this integrated agriculture project in more depth with new knowledge by learning sustainable agriculture theories such as the use of EM and composting, agricultural and livestock SOPs, proper seedling and fertilizing methods as well as pest and disease management. In addition, they not only focused on the basics of crops but also learned how to use technology such as a kampung chicken egg incubator and a proposed purchase of a slaughterhouse chicken washing machine that has successfully reduced operating costs. In addition, the exploration of Azolla and Black Soldier Fly (BSF) as an alternative to livestock feed is an innovative step to address high food costs and manage food waste sustainably.

The collaboration with Homestay Janda Baik and the company Technofresh shows the importance of a marketing strategy guided by market demand. The increase in demand for kantan flowers from 2,000 to 7,000 flowers per week proves the great potential when

production is aligned with the needs of buyers. It has shown that running small-scale crops can also open up opportunities for participants to increase their side income by selling their produce to wholesalers. Weekly meetings and monitoring visits to participants' plots provide opportunities to share experiences, identify challenges, and discuss joint solutions. This method encourages peer support, increases motivation, and strengthens participants' commitment to the project.

This project also has collaboration with related agencies such as MARDI, the Department of Agriculture and RISDA to ensure participants receive ongoing guidance for the project's sustainability. Future plans include group planting of high-potential herbal plants such as turmeric leaves, selom leaves, and kesum leaves. In addition, involvement in agricultural carnivals as well as the development of packaging and product branding are steps towards making community produce more recognizable and competitive.

Overall, the Janda Baik Community Garden Project has proven that the success of a community project depends on the diversity of products, the use of appropriate innovation, market linkages, and a commitment to continuous learning. This can be proven by the sales revenue that participants earned throughout this project, which is estimated at RM600-RM1,000 per month. This revenue comes from the sale of bentong ginger, kantan flowers, village chicken and chicken eggs. The best practices identified can be used as a reference model to further strengthen community agriculture initiatives in other areas.

Participants' Feedback:

'Saya sangat berbesar hati dan gembira untuk bersama-sama di dalam projek ini. Sangat berharap untuk kita mengembangkan lagi projek kepada tanaman lebih perlu seperti padi dan sayuran'

AJKIVN ENTERPRISE

Parliament: Kuantan, Pahang
Project Title: Pertanian Bersepadu Komuniti Janda Baik
Funding Allocation: RM40,000
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CENTRAL ZONE

ANIMAL BREEDING

From Coop to Community: Layer Chicken Farming Project

The high demand for layer chickens in Sungai Besar, Selangor inspired one of our solution providers to take a bold step by registering for the Layer Chicken Farming Project. For him, this initiative is not only about meeting the growing needs of the local community but also about creating meaningful opportunities for them to generate income. By venturing into this project, he envisions empowering the community with sustainable livelihoods while ensuring a steady supply of fresh eggs to meet local demand.

Mr. Saufi, a registered solution provider with APPGM-SDG since 2024, brings with him eight years of experience in rearing free-range chickens and one year of experience in layer chicken farming. His deep passion for poultry farming has driven him to take on the role of a solution provider for this project, where he will train 10 participants from within the village community itself. These participants, consisting of youths, farmers, and small entrepreneurs, are highly motivated and eager to be part of the initiative, united by their determination to succeed in poultry farming.

In the journey to implement this project, Mr. Saufi, the solution provider, encountered several significant challenges that tested both planning and resilience. One of the key issues was the unpredictable weather, which disrupted the original schedule and affected the smooth implementation of activities with

the project participants. Sudden changes in rainfall and temperature forced adjustments to ensure that training and farming tasks could still be carried out effectively. In addition, the rising cost of building materials and labour created further strain on the project's financial resources. Construction wages were estimated to have exceeded the initial budget, requiring careful consideration and resource management.

Nevertheless, Mr. Saufi successfully navigated these challenges and ensured the project was completed on time. He demonstrated flexibility by rearranging the training sequence, prioritising theoretical lessons during unsuitable weather and postponing practical sessions at the chicken coop until conditions improved. His efficient time management allowed the project to be completed within the stipulated timeline despite the setbacks. To overcome the challenge of rising labour costs, Mr. Saufi empowered the participants themselves to take on the role of builders, applying their own skills to construct the chicken coops. This approach not only reduced costs but also instilled a sense of ownership and pride among the participants.

The dedication and enthusiasm of the participants were equally vital to the project's success. Their collective effort and strong spirit enabled them to complete the construction of the chicken coops, turning obstacles into opportunities. Together, Mr. Saufi and the community proved that with teamwork, adaptability, and determination, challenges can be transformed into achievements that strengthen both skills and livelihoods.

Although the yields from the first phase of this project were modest, with most of the eggs sold only within the local community and not yet reaching external markets despite high demand, the impact on individual participants has been remarkable. Mr. Saufi expressed his pride in seeing several participants succeed, such as Mdm. Nabilah Binti Said Nor, a full-time housewife with no prior experience in poultry farming, who managed to raise healthy chickens through the knowledge and support gained from the community project. As the owner of the first project site in Kampung Parit 10, Pasir Panjang,

Sekinchan, Selangor, she not only applied best practices in caring for the chickens but also contributed valuable ideas on coop arrangement and systematic cleaning techniques. Her journey reflects the true success of the project, empowering ordinary community members to acquire new skills, build confidence, and create meaningful change for themselves and their community.

In conclusion, the Layer Chicken Farming Project has shown that even with modest yields in its initial phase, it has successfully empowered participants with new knowledge, practical skills, and confidence to venture into poultry farming. Beyond generating income, the project fostered community collaboration and encouraged participants like Madam Nabilah to step out of their comfort zones and contribute innovative ideas. This demonstrates that the true success of the project lies not only in production but in building sustainable livelihoods and strengthening the resilience of the local community.

DMT ENTERPRISE

Parliament: Sungai Besar, Selangor
Project Title: Projek Ternakan Ayam Penelur
Funding Allocation: RM40,000
Email: saufi93.MS@gmail.com

AGRICULTURE

From Fertigation to Innovation: Veggie & Chili Cultivation at Bangi Botanical Garden

The initiative led by solution partner Prof. Dr. Noraini at Taman Botani Bangi, Universiti Kebangsaan Malaysia (UKM), represents an inspiring model of urban agriculture and women's empowerment. With a strong background in community-based agriculture, pest control, and fertigation, she has guided numerous successful projects such as the APPGM-SDG Phase 1 Chili Farm, Kebun Nuri Nutrisi Bank Rakyat to support 30 UKM students with greenhouse vegetables, and the CSR Laman Dapur Masjid UKM to supply fresh produce for mosque activities. Building upon these achievements, her team embarked on Phase 2 of the project: the cultivation of vegetables and Cili Bara through mini fertigation systems, along with the creation of downstream products to increase participant income and entrepreneurial skills.

In Phase 1, ten single mothers and housewives from low-income households were provided with mini fertigation systems to grow selected vegetables, particularly Cili Bara. They received hands-on training in fertigation management, pest control, and marketing. For many participants, this was their first time cultivating crops through fertigation, and the experience was both empowering and transformative.

Not only did they learn how to manage crops at home, but they also succeeded in generating income by selling their harvests and promoting their produce within their communities. Encouraged by this success, Phase 2 was designed to expand the scope of the project by diversifying vegetable varieties, doubling the number of polybags, and developing value-added downstream products such as pickled vegetables and sambal.

Participants have shown strong enthusiasm and commitment throughout the project. They clearly understood the activities planned under the community farm initiative and established a strong relationship with the facilitators guiding them. Feedback was positive, with participants expressing high levels of interest and appreciation during face-to-face meetings. The joy of learning was evident, particularly as many participants shared that this was their first experience sowing vegetable seeds using fertigation. The opportunity opened new horizons for them, offering not only technical knowledge but also the confidence to pursue farming independently.

Nevertheless, the journey was not without its challenges. One of the main issues was accommodating participants who had fallen behind during Phase 1 and ensuring they could align with the momentum of Phase 2. Coordinating a group of ten participants within a limited space also presented logistical difficulties, requiring creative solutions to ensure every member had equal opportunity to learn and practice. Yet, these challenges strengthened the sense of teamwork and resilience among participants, reinforcing the idea that collective effort is essential in community-based farming projects.

The impact of the project has been remarkable. Participants not only gained practical agricultural skills but were also exposed to entrepreneurship and branding for the very first time. They learned how to design product labels, create business taglines, and package their produce, skills that extend beyond farming and into the broader realm of income generation. Their excitement was especially visible when preparing and producing sample products such as sambal and preserved vegetables. This experience gave them a tangible sense of achievement and highlighted the potential of agriculture as a viable

pathway to financial independence.

Perhaps the most meaningful lesson from the project is the joy of helping others to add value to their lives. For participants, the project has been more than just about farming, it has been about self-discovery, skill-building, and empowerment. Sharing knowledge with the community has proven to bear long-term benefits, creating a ripple effect of sustainable practices and entrepreneurial spirit.

Looking ahead, this project is expected to provide participants with broader experiences that will enable them to advance further in the agricultural sector. By combining farming with innovation in product development, the initiative serves as a holistic model for urban agriculture, one that addresses food security, supports women's livelihoods, and strengthens community resilience. It demonstrates that when education, empowerment, and agriculture come together, the impact goes far beyond crops: it transforms lives and builds stronger, more sustainable communities.

UNIVERSITI KEBANGSAAN MALAYSIA

Parliament: Bangi, Selangor
Project Title: Penanaman Sayuran dan Cili Bara Secara Sistem Mini Fertigasi dan Penghasilan Produk Hiliran Taman Botani Bangi UKM - Memperkasa Pendapatan Isi Rumah Wanita Berdikari
Funding Allocation: RM40,000
Email: ntalip@ukm.edu.my

AGRICULTURE **I Whisper to The Earth**

Tani Noka is more than just a farm, it is a living testament to how agriculture can serve as a bridge between education, innovation, and community empowerment. Located within Universiti Putra Malaysia (UPM) in Serdang, Selangor, the 11-acre farm is envisioned as a sustainable sanctuary that nurtures both the land and the people who engage with it. It is a space where traditional farming methods are not abandoned but instead reimagined alongside modern, eco-friendly practices to create a model of urban agriculture that can be replicated elsewhere.

The farm dedicates one acre of land to structured planting, focusing on crops such as chili, vegetables, okra, and Ruby Sweet Corn. These are strategically divided into 12 plots, which allow for staggered cultivation cycles and continuous harvests. This systematic approach reduces risks associated with seasonal fluctuations while also ensuring a consistent food supply. The project further employs an automated irrigation system and emphasizes the use of organic fertilizers, methods that save time, reduce labor intensity, and promote environmentally responsible practices. Through this combination of planning, innovation, and ecological stewardship, Tani Noka showcases a new way forward for sustainable urban farming.

Yet, like any meaningful initiative, the journey was not without its challenges. One of the most significant obstacles was managing the farm collectively, as participants were only involved part-time and most had little to no background in agriculture. This created complexities in decision-making and maintenance. Crop selection itself presented another layer of difficulty: leafy vegetables required careful daily attention; chili and okra, while popular and profitable, demanded intensive labor during harvesting; and only corn proved relatively easier to manage as a collective effort. These challenges underscored the importance of communication, planning, and shared responsibility in sustaining a community-based farm.

Despite these hurdles, the project has had remarkable success in delivering positive outcomes for both the participants and the wider community. Between January and May alone, nearly 500 visitors, including families and children, set foot on the farm. They were not just passive observers; instead, they engaged in immersive, hands-on activities that connected them directly with the land. Many participants who initially lacked agricultural knowledge expressed a newfound interest in continuing small-scale farming in their own spaces. Visitors, too, walked away with a deeper appreciation for the food production process and the critical importance of food security. In this sense, Tani Noka has succeeded in transforming farming into an accessible and enriching educational experience.

The skills participants gained were both practical and empowering. They learned how to produce natural enzymes that serve as plant boosters and eco-friendly cleaning agents, cultivate beneficial microorganisms to enrich soil organically, and even grow microgreens in small urban spaces such as balconies and kitchens. Training also included seed germination, early plant care, and the cultivation of staple crops like corn, chili, and okra. These skills, though seemingly modest, are life-changing because they can be adapted to different contexts, from home gardens to larger-scale community plots. More importantly, they instill a mindset of sustainability and self-reliance, values that extend beyond farming itself.

One of the most impressive achievements of the project was its waste management initiative. Over the course of the project, a total of 13,157.5 kg of organic waste was recycled directly back into the soil. This effort not only reduced the amount of waste sent to landfills but also helped enrich the soil naturally, supporting an ecological farming system that thrives on circular resource use. The result was a farm that did not just grow food but also demonstrated the principles of a regenerative economy, one where nothing goes to waste, and every output feeds back into the system in a sustainable way.

What makes Tani Noka truly exceptional is its role as a model for urban farming and sustainable development. It demonstrates how a farm can function as a community classroom, a food production hub, and an environmental education center all at once. By bringing together participants, local communities, and visitors, the farm fosters a collective sense of responsibility toward the land and the future of food systems. It highlights that farming is not solely about yield, but about cultivating knowledge, strengthening community ties, and reconnecting with nature.

In the long run, Tani Noka offers more than just crops, it offers a blueprint for how urban spaces can embrace sustainability and resilience. It shows that when education meets cultivation, communities are not only able to feed themselves but also grow stronger, wiser, and more united. Through its challenges and achievements, the project stands as a best practice for how agriculture can inspire transformation, turning a simple farm into a movement for learning, growth, and environmental stewardship.

TANI NOKA SDN BHD

Parliament: Sepang, Selangor
Project Title: I whisper to the Earth
Funding Allocation: RM40,000
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AGRICULTURE

Green Pioneer Farming by Special Needs Youth

The Community-Based Rehabilitation (CBR) Centre, PDK Sinar Harapan, is well known for its strong community engagement, particularly the active involvement of parents, caregivers of persons with disabilities (PWDs), and the local community. Through this collaboration, the centre not only supports PWDs in living independently but also helps them integrate meaningfully into society. Over the years, PDK Sinar Harapan has carried out a wide range of initiatives, from community development programmes and rehabilitation therapy sessions to economic empowerment activities designed to improve the quality of life of PWD trainees.

For this project, the appointed solution provider is Mr. Perkas Rao a/l Ramah, who brings five years of valuable experience in agriculture. His background includes managing small-scale vegetable farming and fertigation projects around the PDK area, giving him practical knowledge and proven skills in modern agricultural techniques. With his expertise, Mr. Perkas Rao is well-positioned to guide the participants, particularly PWD trainees and their families, in gaining hands-on farming experience. His involvement not only strengthens the technical aspect of the project but also aligns with PDK Sinar Harapan's mission to build self-reliance and economic opportunities for the disabled community.

Driven by his deep compassion for children with special needs, Encik Perkas embarked on a mission to support them through the establishment of a watermelon farming project. This initiative, which continued from the first phase into its second, was not merely about agriculture, but about creating a meaningful platform for the children and their families at PDK Sinar Harapan.

Although the profits generated were modest and primarily benefited the local PDK community, the project's true value lay in its social impact. It provided the children and their families with hands-on exposure to modern farming practices, instilled a sense of discipline and responsibility, and encouraged teamwork in managing the crops. More importantly, it nurtured confidence and self-reliance among the participants, proving that they, too, could contribute productively to their community. Encik Perkas's perseverance reflected not only his dedication to farming but also his belief in empowering children with special needs and their families to live with dignity, independence, and a stronger sense of belonging.

For Encik Perkas, this project has never been about profit alone, but about giving opportunities and building skills within the community. He believes that through farming, participants can gain valuable knowledge, develop confidence, and strengthen their sense of belonging. The watermelon cultivation project was introduced, focusing on organic farming practices. Fifteen participants were given the chance to explore every stage of cultivation from preparing the soil, planting, and caring for the crops, to harvesting and sharing the fruits of their labor. Organic farming was chosen not only for its environmental benefits, such as improving soil nutrients, reducing water wastage, and ensuring healthier crops, but also because it instills discipline and responsibility. The project became more than just an agricultural initiative, it turned into a platform where participants could discover their potential, work together as a team, and contribute meaningfully to their community.

This project was further strengthened through the active involvement of local stakeholders such as Tenaga Nasional Berhad, Green Wings

Recovery Centre Bangsar KL, and the Petaling Jaya City Council. Their participation went beyond just symbolic support, it created meaningful collaborations that brought knowledge, resources, and sustainability to the initiative. For instance, stakeholders contributed by conducting training sessions that introduced modern farming practices, sharing technical expertise that enriched the participants' skills, and donating organic fertilizers that significantly reduced farming costs. These forms of assistance not only eased the financial burden but also inspired participants to see that their efforts were recognized and supported by established organizations.

By reducing dependency on APPGM grants and encouraging shared responsibility, the project built a strong foundation for long-term sustainability. More importantly, this collaboration showcased how public institutions, private entities, and communities can come together to empower grassroots initiatives, turning small agricultural projects into models of resilience and community-driven success.

Although profit was never his main priority, the project still produced a notable yield of approximately 412.18 kilograms of watermelon, valued at RM2,633.96. What made this achievement even more meaningful was how the proceeds were shared equally among the participants at PDK Sinar Harapan. Rather than being measured solely in financial terms, the harvest symbolized the participants' hard work, teamwork, and determination. It reflected how collective effort, guided by strong leadership, could turn a simple farming project into a source of pride and shared benefit for everyone involved.

Beyond the financial outcome, the true value of this project lies in the skills, confidence, and sense of ownership gained by the participants. Through hands-on involvement in organic watermelon cultivation, they not only learned practical agricultural techniques but also experienced the rewards of teamwork and perseverance. This journey has proven that when communities are given the right guidance and support, they can create sustainable solutions that uplift lives. With

the foundation already built, this project holds the potential to inspire similar initiatives in other communities, ensuring that its impact extends well beyond the boundaries of PDK Sinar Harapan.

PERTUBUHAN PEMULIHAN DALAM KOMUNITI SINAR HARAPAN

Parliament: Sungai Buloh, Selangor
Project Title: Projek Pertanian Perintis Hijau Anak-anak Istimewa - Tanaman Tembikai Fasa 2
Funding Allocation: RM40,000
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INTEGRATED FARMING

Growing Together: Vegetable Farming by The Learning Disability Community

Akademi Permata Impian (APIUM) is a non-governmental organization (NGO) founded by Mr. Ahmat Sa'ridan Kassim, the Chairman of APIUM. The academy was established out of his deep concern and love for his son, Iskandar, who is a person with disabilities (PWD). Mr. Ahmat Sa'ridan noticed that his son often had no friends to play with at home, which inspired him to create a safe and supportive space where children with disabilities could interact, learn, and play together. His vision proved to be true, with the establishment of APIUM, many children with disabilities were able to smile, build friendships, and engage in meaningful interactions. However, building and sustaining such a place was not easy. It required a significant amount of funding to cover monthly expenses such as building rent and utility bills.

During the COVID-19 pandemic, Mr. Ahmat almost gave up as APIUM struggled with unpaid rent and financial pressures. Nevertheless, with the support of NGOs and the generosity of the public, he managed to keep APIUM going. To this day, APIUM continues to stand as a haven for children with disabilities, providing them with opportunities for joy, growth, and connection.

The Vegetable Planting Project by the Community of Persons with Learning Disabilities (PWDs) at Akademi Permata Impian (APIM), Semenyih, Selangor, is a community-based initiative designed to empower individuals with learning disabilities to actively participate in agriculture. Through this project, participants not only acquire practical farming skills but also gain self-confidence, foster teamwork, and explore opportunities for potential income generation. Beyond personal growth, the project serves as an inclusive platform that

highlights the abilities of the PWD community, while encouraging collaboration with local residents. It also plays a meaningful role in promoting food security, sustainable farming practices, and holistic community development. This initiative reflects the importance of inclusivity in nation-building, where every individual, regardless of ability, can contribute and thrive.

A total of 12 participants took part in this project. Out of these, 8 were persons with learning disabilities (PWDs), while the remaining participants consisted of parents and committee members of APIUM. The solution provider for this project is Dr. Maisarah Hasbullah, a senior lecturer at Universiti Malaya. Dr. Maisarah previously led a project under Anak Istimewa Selangor (ANIS) with the objective of identifying the interests of children with learning disabilities in various industries, exploring suitable industries and organizations that could provide employment opportunities for them, and producing a comprehensive report for the ANIS Department. This six-month project, conducted in 2022 and 2023, provided valuable insights into the industrial inclinations of children with learning disabilities (LD) in Selangor.

The main challenge of this project lies in working with the 8 participants with learning disabilities. Therefore, the project leader must have a good understanding of each participant's abilities and strengths, as their capabilities vary greatly from one another. Participants with learning disabilities also have limited focus, and activities can only be conducted within a short period (not exceeding one hour, with theory sessions usually lasting only 30 minutes).

Because of this, trainers can only concentrate on one topic or one aspect at a time. Lessons also need to be repeated frequently, using very simple and clear language. The gardening sessions for participants with learning disabilities are limited to a maximum of two hours. Any longer could potentially affect their health or disrupt their emotional well-being. They also require close supervision and full monitoring for every task assigned. Nevertheless, the project leader found that the participants were highly focused on the tasks given, even though they required continuous guidance and supervision.

The community farming initiative has delivered meaningful and measurable benefits for participants with learning disabilities, particularly in strengthening their personal skills and independence. Many participants showed clear progress in mastering basic agricultural practices such as planting seeds, watering crops, and harvesting produce. These activities nurtured responsibility, self-reliance, and the ability to perform daily tasks with greater independence.

Equally significant was the impact on participants' confidence and social development. Group-based farming activities provided a safe and supportive environment where participants felt encouraged to try new experiences. As a result, they became more confident in expressing themselves, engaged more positively with peers, and developed stronger communication and teamwork skills. This sense of social inclusion has proven vital in empowering participants to feel valued within the community.

The project also promoted environmental awareness and sustainable practices. Participants learned to appreciate the value of recycling organic waste into compost fertilizer and understood the importance of maintaining a clean and eco-friendly farming environment. These experiences not only instilled environmentally responsible habits but also reinforced the role of agriculture in promoting sustainability. Beyond personal and environmental benefits, the initiative created pathways for long-term social entrepreneurship. Through digital marketing training, participants were introduced to selling agricultural produce via platforms such as Facebook and WhatsApp. This exposure provided them with practical knowledge and opened opportunities for income generation, equipping them with valuable entrepreneurial skills while strengthening the sustainability of the community farming model.

Overall, the community farming project stands as a replicable model of inclusive community development. By combining agriculture, sustainability, and social entrepreneurship, it demonstrates how people with learning disabilities can be meaningfully engaged, empowered, and equipped with skills that enhance both their livelihoods and their sense of belonging. The initiative not only

benefits individuals but also contributes to a more inclusive and sustainable society.

UNIVERSITY MALAYA

Parliament: Hulu Langat, Selangor
Project Title: Projek Penanaman Sayur-sayuran oleh Komuniti OKU Pembelajaran
Funding Allocation: RM40,000
Email: maisara@um.edu.my

SOUTHERN ZONE

ANIMAL BREEDING

Smart Freshwater Fish Farming in Alor Gajah

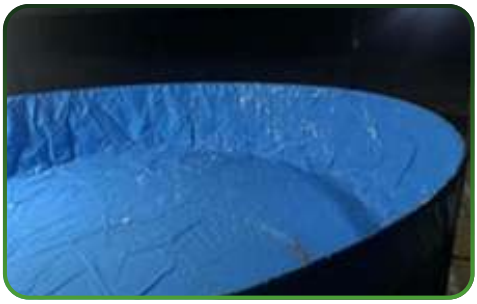
The Penterakan Pintar Ikan Air Tawar project in Alor Gajah, Melaka showcases how smart technology and traditional farming skills can be combined to create sustainable livelihoods for rural participants. Implemented under the APPGM-SDG Food Security initiative and guided by Phanter Enterprise, the project involved ten participants from diverse backgrounds, including smallholders, housewives, retirees, and technical workers. From the start, the objective was clear to equip the community with modern aquaculture practices that could generate steady income, reduce dependency on external markets, and promote local food security.

The project began in November 2024 with the construction of six fish ponds on a two-acre site. The process involved clearing the land, building biofloc ponds, and installing critical infrastructure such as solar energy systems, oxygen supply pipes, CCTV monitoring, and smart sensors to track water quality. Participants were trained hands-on in every step, from setting up the ponds to introducing 12,000 tilapia fingerlings, ensuring ownership and skill-building. The work was done collectively, with participants contributing their energy, time, and ideas. This hands-on learning approach created a strong sense of camaraderie and responsibility among the group.

Challenges, however, were inevitable. The project faced delays due to bad weather, shortages of construction materials, and administrative hurdles in securing water and electricity supply. Additionally, the fasting month posed difficulties as participants preferred to limit outdoor activities during the hot afternoons. Despite this, resilience prevailed. By reorganizing schedules, dividing tasks among smaller groups, and using solar and electric fencing to secure the ponds, participants managed to overcome these hurdles. The creation of a Standard Operating Procedure (SOP) for pond maintenance further ensured continuity and discipline.

The outcomes have been deeply encouraging. Although harvest had not yet been reached by mid-2025, participants gained confidence in managing aquaculture systems and began planning for larger-scale expansion. The project instilled new technical skills from installing solar power to managing oxygenation and pond hygiene. Socially, participants built strong networks with suppliers, the Department of Fisheries, and local stakeholders, laying the foundation for long-term sustainability. As one participant, Syamsul Amri, a 52-year-old who previously had no permanent job, shared: “I never had the chance to work with such systems before, but now I feel proud that I helped build these ponds and can manage them with my friends. This project gave me hope that I can contribute and earn for my family.” His words reflect the sense of empowerment and dignity the initiative created.

The project also highlighted the importance of gender inclusivity. While women did not take part in heavy construction due to safety and heat exposure, they became actively involved in pond maintenance and fish feeding during the monitoring phase. This balance of roles ensured that both men and women contributed to the project’s success. The initiative also strengthened awareness of sustainability and the Sustainable Development Goals, as participants realized how renewable energy, smart monitoring, and sustainable farming methods could reduce costs and protect the environment.



Looking ahead, the participants who are already assigned to each group will manage one pond with 2,000 tilapia each, ensuring accountability and income-sharing. With stronger partnerships and continuous mentoring, the community is determined to expand production and explore market opportunities. The best practices are clear: engage participants in every step of infrastructure building, introduce smart technologies that lower costs and improve efficiency, and nurture solidarity so that challenges are faced together.

The story of this project demonstrates that freshwater fish farming can be more than just an income activity; it is a way of building confidence, fostering cooperation, and creating sustainable futures. By blending modern technology with community effort, the project in Alor Gajah has become a living example of how grassroots food security initiatives can thrive.

PHANTER ENTERPRISE

Parliament: Alor Gajah, Melaka
Project Title: Penternakan Pintar Ikan Air Tawar (Phase 1)
Funding Allocation: RM40,000
Email: phanter.enterprise@gmail.com

AGRICULTURE

From First Steps to Flourishing – A Hydroponic Journey in Seri Mendapat

The hydroponic vegetable project in Kampung Tersusun Seri Mendapat, Merlimau, Melaka began with small but meaningful steps under Phase 1. With guidance from UiTM Kampus Jasin through the APPGM-SDG Food Security initiative, the community was first introduced to modern hydroponic cultivation. Participants were exposed to the basics of growing vegetables without soil, relying on water and nutrient solutions. For many, this was a completely new experience, yet it sparked curiosity and excitement. The success of this initial stage proved that even in a small rural village, modern agriculture could take root.

Phase 1 was not without its own learning curve. Participants had to adapt to new techniques, manage seedlings with care, and pay attention to details such as water pH levels and nutrient balance. For farmers who were more familiar with conventional practices, this shift was initially daunting. Yet, what stood out was their willingness to learn. The presence of UiTM as a knowledge partner gave participants the confidence that they were not alone in this journey. Through training, hands-on sessions, and continuous follow-up, the first phase created a strong foundation for the expansion that followed.

Building on that momentum, Phase 2 expanded the project with the construction of ten hydroponic houses and the introduction of a mist nursery integrated with IoT automation. This development was more than just a technical upgrade; it represented a transformation in mindset. Farmers, retirees, housewives, and young participants who once relied on conventional practices began embracing innovation-driven farming. The sense of pride was evident as participants

received their own hydroponic sets. One participant reflected, "When my seedlings dried up, I felt like giving up. But with encouragement and technical advice, I learned to start again with more confidence." This single statement captured the perseverance and determination that became the spirit of the project.

The journey, however, was not without challenges. The sudden loss of a project leader, delays in fund transfers, and technical problems such as clogged microtubes and dried seedlings tested the participants' resilience. At times, some lacked motivation due to family commitments or health concerns, but consistent support from UiTM experts and the solidarity of fellow participants ensured that no one was left behind. Mutual assistance became a strength, with participants stepping in to help each other maintain crops and systems during difficult times. This support network highlighted the importance of community in sustaining agricultural projects.

The outcomes of the project have been deeply encouraging. While harvests were only beginning, the foundation for income generation and wider adoption of hydroponics had already been laid. Villagers observing the neat hydroponic rows expressed interest in adopting the system, and the project's success caught success caught the attention of the Majlis Perbandaran Jasin, opening discussions for broader implementation across the district. More than just economic potential, the project also created social value. Participants reported feeling a stronger sense of purpose, responsibility, and pride. For many, managing their hydroponic sets became more than an activity, it became a symbol of resilience and possibility.

Another important outcome was the recognition received by UiTM Kampus Jasin as a solution provider. The successful execution of the project enhanced its profile, resulting in invitations to collaborate on larger-scale initiatives. The partnership model between the university and the community proved to be a best practice, demonstrating how academic institutions can play a direct role in addressing local food security challenges.

The hydroponic journey in Seri Mendapat demonstrates that with the right blend of knowledge, technology, and community spirit, rural farmers can transform challenges into opportunities. Starting small in Phase 1 and scaling up in Phase 2 proved to be an effective pathway for building resilience and capacity. The key lesson learned is that farming is not only about producing food, but also about nurturing people, fostering solidarity, and strengthening the will to adapt and succeed together. By embracing modern farming, the participants of Seri Mendapat have shown that even in the face of setbacks, a community can flourish when guided by vision, collaboration, and determination.

Ultimately, the project stands as a living example of best practices in community farming. It illustrates that innovation can take root in rural areas, that partnerships between universities and communities can create lasting impact, and that the human element, encouragement, support, and shared learning, is what turns projects into legacies. As the vegetables grow in their hydroponic houses, so too does the spirit of resilience in Seri Mendapat, inspiring others to believe that change is not only possible, but achievable when people come together with a shared purpose.

FAKULTI PERLADANGAN DAN AGROTEKNOLOGI, UNIVERSITI TEKNOLOGI MARA, CAWANGAN MELAKA, KAMPUS JASIN

Parliament: Jasin, Melaka
Project Title: Tanaman Sayuran Secara Hidroponik – Memperluaskan Plot Tanaman (Phase 2)
Funding Allocation: RM80,000
Email: ismailrakibe@uitm.edu.my

AGRICULTURE

Empowering Women Through Agroecology in Tangkak

The Kebun Komuniti Wanita Tangkak project in Tangkak, Johor, is a story of women's empowerment, resilience, and transformation through agriculture. Implemented under the APPGM-SDG Food Security initiative, the project was led by the Persatuan Agroekologi Malaysia untuk Intensifikasi Sumber Lestari (SRI-Mas), an NGO dedicated to promoting agroecology as a pathway for sustainable food systems. The initiative brought together ten women, most of them retirees and housewives, who were eager to learn new farming skills and contribute to their community's food security.

At the start, many participants doubted their ability to succeed. Most had no prior experience with organic methods or the System of Rice Intensification (SRI), which relies on planting single rice seedlings that later multiply when managed properly. The idea seemed unusual and uncertain. However, through hands-on training, demonstrations, and regular coaching, the women slowly gained knowledge and confidence. They learned to use low-cost inputs such as JADAM Microorganism Solution (JMS) and JADAM Liquid Fertilizer (JLF), practiced ecological pest management, and even explored marketing techniques through WhatsApp Broadcast. This combination of traditional commitment and modern tools became the backbone of their success.

The project was not without challenges. Flooding damaged early crops, some participants struggled to follow the farm's standard operating procedures (SOPs), and pest attacks threatened harvests. Yet, each challenge was met with determination and teamwork. Flooded fields were replanted, SOPs were emphasized repeatedly until they became routine, and pest problems were reduced by improving

soil health and farm management. Slowly but surely, participants saw the fruits of their effort. Their discipline and perseverance turned obstacles into opportunities for growth.

One of the most inspiring transformations came from the participants themselves. Hjh Masmah Akhsan, a 79-year-old retiree, reflected on her experience: “At the beginning, I had no confidence in farming again, but as the project progressed, I felt joy working with the other participants. I never believed that a single rice seedling could produce so many tillers. Now I see that this method truly works, and the knowledge I gained will stay with me for life.” Her words captured the spirit of the group moving from doubt to confidence, from isolation to community, and from curiosity to mastery.

The outcomes have been encouraging both socially and economically. The women harvested roselle, chili, and eggplant while preparing for their first paddy harvest. They gained new skills, from ecological farming techniques to digital marketing, and began to see themselves as capable farmers and entrepreneurs. Just as importantly, the project became a place of friendship and joy, where participants could relieve stress, share stories, and support one another. The women also realized that they were breaking gender stereotypes by engaging in tasks often associated with men, thus contributing to greater gender equality in their community.

Looking ahead, the women of Tangkak are determined to sustain and expand their efforts. They plan to process roselle into value-added products such as cordials and dried herbs, pursue MyGAP certification for their farming site, and develop their community farm as an eco-agro-tourism site. With continued collaboration from local authorities and supporting organizations, they are well-positioned to turn this vision into reality.

The best practices from this project are clear: start with confidence-building, provide consistent guidance, and integrate both ecological farming and modern technology. Most importantly, create a supportive environment where women can learn, share, and grow

together. The Kebun Komuniti Wanita Tangkak stands as proof that when knowledge, resilience, and solidarity come together, agriculture becomes not just a source of food, but a path to dignity, empowerment, and hope.

PERSATUAN AGROECOLOGY MALAYSIA UNTUK INTENSIFIKASI SUMBER LESTARI (SRI-MAS)

Parliament: Tangkak, Johor
Project Title: Kebun Komuniti Wanita Tangkak (Phase 2)
Funding Allocation: RM80,000
Email: anizanbtisahak@gmail.com

AGRICULTURE

Growing Futures With L.I.F.E 2.0 In Muar

The L.I.F.E 2.0 project in Simpang Jeram, Muar, Johor tells the story of how mushroom cultivation can spark innovation, learning, and new opportunities for local communities. Implemented under the APPGM-SDG Food Security initiative and guided by NNM Industries, the project brought together ten participants including farmers, women, and retirees. From its beginning in February 2025, the initiative aimed not only to grow grey oyster mushrooms but also to transform them into innovative downstream products that could add value, create income, and open doors to agro-based entrepreneurship.

NNM Industries, established in 2020, played a pivotal role in shaping the project. As a food processing company specializing in retort technology for ready-to-eat meals, the organization brought both technical expertise and vision. Their involvement ensured participants were not only introduced to mushroom farming techniques but also trained in advanced processing such as drying mushrooms into powder, making mushroom-based noodles, and developing spaghetti sauce using retort methods to extend shelf life without preservatives. These activities exposed participants to the full chain of value addition, from fresh produce to market-ready products.

The project journey, however, was not without challenges. Participants faced issues with mushroom drying, which required significant time, as well as pests and equipment breakdowns like faulty ventilation fans. Time constraints among agencies and participants also made scheduling difficult. These obstacles were met with practical solutions. NNM Industries supported the participants by demonstrating drying processes at their factory, ensuring consistent quality. Some modules were merged to save time, while agencies like FAMA and the

Department of Agriculture provided targeted guidance and funding advice. Through persistence, every planned module was completed, ensuring that participants received both farming and entrepreneurial skills.

The impact on participants was tangible. They developed new competencies in building mushroom houses, managing stock, sales, and marketing, and learned to apply Good Agricultural Practices (GAP) to maintain product quality. They also began adopting systematic waste management practices, repurposing spent mushroom blocks for livestock feed and exploring their use in black soldier fly farming. Beyond technical skills, the participants gained confidence and pride in their achievements. As Taufiq, a farmer and participant, expressed: "I am excited to explore mushroom cultivation. Before this, I was only planting long beans and eggplants, but now I see a new opportunity to grow and learn." His words capture the sense of possibility that mushroom farming brought to the community.

The results were promising. Within the first four months, participants harvested 68 kg, 120 kg, and 115 kg of mushrooms across successive months, generating income while gaining experience in scaling production. They also experimented with packaging, labeling, and online marketing, learning how to position their products for wider consumer appeal. Importantly, the project fostered collaboration, with participants building networks with food industries, traders, and local agencies. This laid the groundwork for sustainability, as the community now has access to continuous technical and institutional support.

The L.I.F.E 2.0 project demonstrates that with the right guidance and partnerships, rural communities can successfully adopt modern farming systems and develop value-added products. The lessons are clear: consistent training builds confidence, technical innovation unlocks new income streams, and collaboration with government agencies strengthens resilience. More than just cultivating mushrooms, this initiative cultivated people's belief that they could

innovate, adapt, and thrive. In Muar, mushrooms became more than food; they became a symbol of growth, empowerment, and a sustainable future.

NNM INDUSTRIES

Parliament: Muar, Johor
Project Title: L.I.F.E 2.0 (Lesson - Innovation - Food - Environment) (Phase 2)
Funding Allocation: RM80,000
Email: nnmindustries@gmail.com

INTEGRATED FARMING

Integrating Aquaponics and Organic Farming in Tangkak

The Projek Pertanian Integrasi Akuaponik dan Sayur Organik Kebun Rakyat in Kg. Padang Lalang, Tangkak, Johor represents a successful example of how small community farms can adopt modern techniques while strengthening solidarity and food security. Implemented under the APPGM-SDG Food Security initiative and guided by GRASS Malaysia, the project entered its second phase with the aim of empowering ten community participants with the skills to practice sustainable farming and manage their own food production.

At the beginning, participants were introduced to the concept of integrated aquaponics and organic farming, where fish and vegetables are cultivated together in a balanced system. Through hands-on training and workshops, they learned to grow vegetables like kangkung, sawi, bendi, and terung while managing catfish tanks. Participants also attended waste management workshops, discovering how kitchen and garden waste could be recycled into compost and organic inputs. Marketing sessions taught them to explore direct sales to friends, restaurants, and local shops, while networking meetings with stakeholders helped build long-term sustainability.

The project was not without its challenges. Participants faced hot and dry weather that hardened the soil, heavy rain that encouraged fast weed growth, and inconsistent commitment in operating the irrigation pump. However, these issues were met with practical solutions: watering schedules were adjusted, weeds were cut more frequently, and participants were reminded to adhere to proper routines. These small but consistent adjustments taught the group that resilience and discipline are key to farming success.

The impact on participants was evident in both skills and mindset. They became familiar with aquaponic systems, organic pest control, composting methods, and sustainable soil management. They also gained marketing knowledge and built networks with agencies such as MARDI, the Department of Agriculture, and local councils. The harvest outcomes were encouraging, with 120 kg of kangkung and 40 kg of bendi produced, proving the system's productivity. As one participant shared with pride: "I never thought I could take care of fish and vegetables at the same time, but now I see how aquaponics makes it possible. It feels good to harvest food that is safe and healthy for my family." This reflection highlights the confidence and satisfaction gained through the project.

Beyond farming, the project provided social value. Participants felt joy in working together, reducing stress, and sharing experiences. The initiative created a supportive community space where knowledge was exchanged freely. Women participants in particular gained confidence by engaging in technical farming activities, contributing to gender inclusivity and strengthening their roles in local food systems.

Looking forward, the project envisions scaling up by introducing more participants to the system, exploring eco-tourism potential, and tapping into government grants and business networks. The best practices from this initiative are clear: integrate modern and ecological methods, reinforce discipline through consistent monitoring, and ensure community bonding through shared responsibilities.

The story of this project in Tangkak demonstrates that integrated aquaponics and organic farming can thrive at the grassroots level, delivering not only fresh food and additional income but also empowerment, knowledge, and stronger community resilience.

PERTUBUHAN ALAM SEKITAR SEJAHTERA MALAYSIA (GRASS MALAYSIA)

Parliament: Tangkak, Johor
Project Title: Projek Pertanian Intergrasi Akuaponik
Dan Sayur Organik Kebun Rakyat (Phase 2)
Funding Allocation: RM80,000
Email: hayatisaleh@yahoo.com

SARAWAK REGION

ANIMAL BREEDING

From Farm to Market: Sustainable Goat Rearing and Marketing

Among the four animal breeding projects carried out in Sarawak, one notable initiative is the "Penternakan dan Pemasaran Hasil Ternakan Kambing" project, spearheaded by Yusof Eco Farm (Eranaa Enterprise). This goat farming project was designed not only as a means of generating income but also as a catalyst for broader livestock activities that could benefit both individuals and the wider community.

The project, located in Padang Kerbau, Miri, brought together 13 participants consisting of youth and local farmers from diverse ethnic backgrounds. Its primary aim was to empower the younger generation, especially school leavers, by showing them that agriculture and livestock farming are not sectors to be looked down upon, but rather promising fields that can offer meaningful livelihoods. Through this initiative, it aimed to encourage participants to move towards becoming more progressive and resilient, particularly in livestock farming and agriculture in general. Beyond skills and income generation, the project also sought to nurture a strong work culture within the livestock sector, one that could ignite teamwork, foster cooperation, and strengthen the community's spirit of self-reliance and pride in their collective identity.

During the active phase of the project, participants carried out a series of important activities to establish and maintain the goat farming initiative. These included project site clearing, the construction of goat pens, the purchase of 13 crossbred goats, and regular health monitoring of livestock. Daily tasks such as releasing the goats to graze, ensuring the cleanliness of the pens and water supply, as well as maintaining the Napier grass planting area, were also part of their responsibilities to ensure the goats' well-being and consistent feed

supply. In addition to these hands-on activities, the project benefited from technical guidance provided by the Department of Veterinary Services, which offered advice on goat care and livestock management. To further strengthen their knowledge, participants attended a goat farming course organised by SM EcoFarm in Bekenu, Sarawak. Through this training, they gained practical skills in feed management, livestock health monitoring, disease identification, and treatment methods, equipping them with the knowledge needed to manage the project more effectively and sustainably.

One of the major challenges faced by the project occurred in January 2025, when continuous heavy rainfall hit Miri, for four consecutive days. The downpour caused severe flooding, with water levels rising to nearly two feet, cutting off access to the project site entirely. Despite several attempts by participants to reach the area, the worsening flood conditions made it impossible to continue with construction activities. As a result, all construction work on the goat pen had to be temporarily postponed until the situation improved. In response to this setback, the solution provider and participants took swift and strategic action to recover and resume progress. Immediate assessments were carried out once conditions allowed, followed by a revised work schedule and the deployment of additional manpower and resources to speed up construction. To prevent similar disruptions in the future, the team also planned several long-term measures, including the improvement of water drainage systems, strengthening of key structures to withstand harsh weather, and the development of contingency plans to ensure readiness for future extreme weather events.

The project's impact has been encouraging. Participants gained essential knowledge and hands-on experience in goat farming, including pen management, feeding, health care, and breeding. Despite the challenges faced, they showed determination and adaptability, adjusting their strategies and maintaining progress until completion. Following the active phase, daily routines such as releasing goats to graze, pen cleaning, health monitoring, and maintenance of the Napier grass area continued, ensuring the goats' well-being.

Through this experience, participants successfully raised healthy livestock, with a few goats already producing offspring, an achievement that reflects the project's success and sustainability. For this first phase, the focus remained on developing strong foundations in livestock rearing and animal health before expanding into marketing and sales. The knowledge and experience gained have equipped participants with the confidence and capability to continue goat farming independently.

In conclusion, the project has not only strengthened participants' capacity in livestock management but also highlighted agriculture's role as a viable and rewarding livelihood. By fostering teamwork, knowledge-sharing, and resilience, it has laid the groundwork for a more food-secure and self-reliant community, demonstrating how local initiatives can contribute to long-term economic empowerment.

YUSOF ECO FARM (ERANAA ENTERPRISE)

Parliament: Miri, Sarawak
Project Title: Penternakan dan Pemasaran Hasil Ternakan Kambing
Funding allocated: RM 40,000
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AGRICULTURE

Harvest of Harmony: Integrated Organic Vegetable Farming

Organic farming represents the second-largest category of food security projects in Sarawak for 2024. This approach not only responds to the rising demand for chemical-free, sustainable produce but also contributes to the preservation of soil health and biodiversity.

One of the notable initiatives under this category is the “Pertanian Bersepadu Sayuran Jenis Buahan Secara Organik” project, implemented by JRS Supplies & Services in Sungai Serusa Sembawang, Julau. Through this project, fifteen Dayak farmers were trained in organic farming practices, equipping them with eco-friendly methods to cultivate vegetables that bring both environmental and economic benefits. By reducing their reliance on commercial fertilisers, participants were able to revive and apply traditional agricultural knowledge inherited from their elders, blending it with modern scientific advancements to produce their own organic fertilisers.

During the four-month active phase, participants learned to produce organic fertilisers such as Fermented Plant Juices (FPJ), a liquid fertiliser made from selected plants, and Fermented Fruit Juices (FFJ), a nutrient-rich solution derived from fermented fruits that enhances soil fertility and supports plant growth. Alongside these lessons, they engaged in practical farming activities such as seedling preparation, planting fruit vegetables, and managing soil health and pests using natural methods.

Participants expressed both satisfaction and enthusiasm as the project progressed, eager to put their new knowledge into practice. They also developed a stronger appreciation for the value of organic farming, gaining awareness of the harmful impacts of chemical inputs

and becoming more conscious of broader environmental and health concerns.

While progress was made, the project also experienced challenges. Most participants had little or no experience in organic farming, which initially led to a lack of confidence in the potential of organic production and fertiliser application. Attendance also proved to be inconsistent, with participants sometimes unable to join due to personal commitments. On top of this, unpredictable weather conditions further complicated matters. Excessive rainfall and humidity created a breeding ground for fungal diseases such as anthracnose and leaf blight, which threatened crop yields.

To address these challenges, the solution provider implemented several solutions. Participants with prior farming experience were engaged to encourage peer learning, while training sessions were held more frequently to build skills and confidence. Organic fertiliser and liquid input samples were introduced, and awareness sessions were conducted with technical experts from Vigor AgriBioTech Solution Sdn Bhd. Flexible scheduling, including alternative dates and regular meeting timetables, was introduced to improve attendance. In addition, participants signed commitment agreements to strengthen accountability. With regards to challenges involving unpredictable weather conditions, efforts were made to improve drainage systems in farming areas to prevent waterlogging and reduce fungal infections.

Through the project, participants enhanced their knowledge and skills in organic farming, particularly in producing organic fertilisers and cultivating vegetables. The initiative encouraged sustainable farming practices that reduced costs while promoting environmental balance. These improvements translated into tangible results, with harvests of crops such as Timun Dayak, corn, and chili reaching more than 500 kilograms. The produce provided additional income streams, improved livelihoods, and attracted greater interest in organic farming within the community. As a result, the project not only contributed to community economic

development but also enhanced local food security and overall well-being.

An example of the project's impact can be seen in the story of one participant, Mdm Minda. Using her small plot of land, she cultivated Timun Dayak, Ensabi, and calamansi limes entirely through organic methods. Her dedication to sustainable farming produced high-quality crops that quickly gained popularity in the local market. By reducing reliance on chemical fertilisers, she sets an example for eco-friendly agricultural practices, promoting healthier and more sustainable food production. Her efforts have not only contributed to environmental conservation but she also managed to earn RM1,000 in a month from the sale of her harvest, which includes 20 kg of Timun Dayak, 60 kg of Ensabi, and 50 kg of calamansi limes. Her success illustrates how organic farming can empower individuals, strengthen household income, and promote healthier, more sustainable food systems.

JRS SUPPLIES & SERVICES

Parliament: Julau, Sarawak
Project Title: Pertanian Bersepadu Sayuran Jenis Buahan Secara Organik
Funding allocated: RM 40,000
Email: jobijrsss@gmail.com

AGRICULTURE

Cultivating Excellence: The Sarawak Liberica Coffee Refinement with Intercropping Innovation

Coffee cultivation in Sarawak holds great potential, with fertile soils and a favourable climate well-suited for unique varieties such as Liberica. However, farmers face major challenges that hinder the industry's growth. Limited knowledge in proper planting, harvesting, and processing results in beans of poor quality that fetch only low market prices, while poor initial planning often leaves farmers struggling with unsustainable incomes. The region's rainforest climate, with extremely high rainfall and humidity, makes beans highly prone to mould without proper drying measures, further reducing quality and hindering access to international specialty markets.

To address these challenges, Earthlings Coffee Workshop, with funding support from APPGM-SDG, introduced the Sarawak Liberica Refinement Project with Allelopathy Intercropping. The initiative set out not just to train farmers, but to walk with them through the entire journey of coffee, from crop to cup. The project targeted 10 Bidayuh coffee farmers from Kampung Tringgus Bong, Bau. They were provided with hands-on guidance in field management, coffee fermentation, drying techniques, and quality grading, equipping them with the skills to raise their beans to specialty standards.

Over the course of the four-month active phase, participants underwent a comprehensive coffee training program that covered a wide range of topics such as basic coffee knowledge, seedling and soil suitability, nursery management, field management practices, fertiliser and disease control, and an introduction to intercropping systems. They also received hands-on training in coffee processing, correct post-harvest methods for Liberica coffee, quality grading, identifying defects, and an introduction to the specialty coffee market.

This was followed by a monitoring phase, during which Dr. Kenny Lee of Earthlings Coffee, the Solution Provider and the trainer of the project continued working with the farmers to oversee bean quality and strengthen their practices. At the same time, he supported them through direct trade by purchasing their coffee beans, ensuring that the farmers' efforts translated into real market opportunities and fairer prices.

Naturally, the project was not without its challenges. One key issue was the limited amount of information participants could absorb at once. To address this, the Solution Provider conducted close monitoring of farmer activities and introduced "bite-sized" training sessions. A coffee information centre was also set up in the village, equipped with photos and infographics to make learning more accessible. Another major challenge was the weather, especially during the rainy season. Although many coffee trees were fruiting at that particular period, the inability to properly dry the beans was compromising quality. To overcome this, the Solution Provider revised the project budget to include the purchase of a mechanical dryer, an addition not in the original plan. The purchase of the mechanical dryer allowed for controlled drying, ensuring more consistent quality and helping farmers overcome the challenges posed by the region's climatic conditions.

Through the targeted training provided by the project, farmers have significantly improved the quality of their coffee beans, with fewer defects and prices reaching over RM35 per kilogram. To date, total sales of their produce have exceeded RM5,000, providing a meaningful boost to household income. Participants expressed their satisfaction, noting that the project not only enhanced bean quality but also expanded their knowledge of coffee production and markets. They have also gained valuable skills in selective harvesting, intercropping to strengthen food security and reduce reliance on monocropping, and understanding how crop interactions can enhance coffee flavour. At the same time, farmers deepened their knowledge of the specialty coffee market, better equipping them to produce and sell higher-quality beans.

The Sarawak Liberica Refinement Project with Allelopathy Intercropping illustrates how targeted training, innovative solutions, and strong partnerships can empower indigenous farmers to transform their land into a sustainable livelihood source. By equipping the participants with practical skills, improved facilities, and direct access to fairer markets, the project has strengthened both livelihoods and food security while positioning Sarawak's Liberica coffee for greater recognition.

EARTHLINGS COFFEE WORKSHOP SDN BHD

Parliament: Puncak Borneo, Sarawak
Project Title: Sarawak Liberica Refinement Project with Allelopathy Intercropping
Funding allocated: RM 40,000
Email: info@earthlings-coffee.com

AGRICULTURE

Greens of the Future: Hydroponic Salad Cultivation Project

The rising cost of essential items, including vegetables, has made it increasingly difficult for many communities to access fresh and high-quality produce, especially when markets are far away or farming facilities are limited. This situation has led to a heavy dependence on external vegetable supplies, which may not always meet cleanliness and safety standards. In response, Pertubuhan Kebajikan Ekonomi Bumiputera Sibu introduced the "Penanaman Sayur Salad Secara Hidroponik" project in Teluk Engkalat, Sibu. The initiative engaged 10 participants, comprising youth, housewives and senior citizens, providing them with the opportunity to learn and benefit from this innovative farming method. Hydroponics was chosen for its advantages, it does not require soil, can be practiced in limited spaces, and delivers faster yields compared to traditional farming techniques.

This project was designed with multiple aims that go beyond just growing vegetables. At its core, it sought to strengthen food security by ensuring a steady supply of fresh and high-quality produce for the local community through hydroponic farming. By enabling participants to grow their own vegetables, the project also helps reduce household expenses, easing the cost of living while contributing to financial stability. At the same time, it introduces the community to modern and environmentally friendly agricultural practices such as hydroponics, which require less water and no soil. Through these efforts, the project not only raises awareness of sustainable farming but also fosters a spirit of cooperation, as participants work together to maintain and manage the community garden, building stronger social ties and shared responsibility.

During the active phase, participants were equipped with comprehensive training on hydroponics, gaining hands-on experience and practical knowledge to manage the entire farming process. They began by constructing the basic structure of the hydroponic system and installing the irrigation and nutrient supply lines that are essential for plant growth. With the system in place, they proceeded to plant suitable vegetable seeds and took on the responsibility of closely monitoring the plants' development, making timely adjustments to the nutrient solution to ensure optimal growth. Participants also learned effective methods of pest and disease control, helping them to maintain healthy and resilient crops. By the fourth month, efforts paid off as they proudly harvested their first produce, which included vegetables such as pak choy, napa cabbage (sawi putih), and ensabi and even began selling the produce.

One of the challenges encountered during the project was the unpredictable weather, which disrupted the initial schedule of activities. To overcome this, the solution provider made necessary adjustments by rescheduling tasks to suit the changing conditions, ensuring that progress continued despite setbacks. Another challenge faced was the limited knowledge among some participants, particularly at the beginning, when they were still unfamiliar with the basic operation and maintenance of the hydroponic system. This sometimes led to inefficiencies in responding to problems as they arose. To address this, continuous guidance and mentoring were provided by the trainer, enabling participants to gradually build confidence and competence in managing the system effectively.

The implementation of the hydroponic project has brought about a range of positive impacts such as technical, economic, educational, and social which benefitted both the participants and the wider community. One of the most significant outcomes has been the fostering of teamwork and collaboration, as participants worked closely together in setting up, monitoring, and maintaining the system. At the same time, the project has encouraged a healthier lifestyle by enabling the community to grow and consume their own fresh vegetables. It has also nurtured a sense of responsibility and awareness toward environmental sustainability, particularly in the

efficient use of water and fertilizers. Beyond these social and educational benefits, the project has delivered tangible economic results. To date, participants have successfully harvested a total of 334 kilograms of vegetables, including pak choy, ensabi, napa cabbage, lettuce, sawi manis, and water spinach (kangkong), achieving sales of more than RM2,300.

In conclusion, this project has brought meaningful benefits to its participants, equipping them with new skills, healthier food options, and stronger community ties. The income earned from vegetable sales further marks an encouraging step toward community-driven food security and income generation, demonstrating how modern farming methods like hydroponics can create positive change.

PERTUBUHAN KEBAJIKAN EKONOMI BUMIPUTERA SIBU (PERKEB)

PERTUBUHAN KEBAJIKAN EKONOMI BUMIPUTERA SIBU

Parliament: Sibu, Sarawak
Project Title: Projek Penanaman Sayur Salad Secara Hidroponik
Funding allocated: RM 40,000
Email: ajoifadz80@gmail.com

INTEGRATED FARMING

Synergy in Sustainability: Integrating Duck Farming with Sago Cultivation

One of the main challenges faced by small-scale farmers is low income due to limited financing and the lack of technical guidance on modern livestock farming. To address this, Tujuh Simfoni Sdn Bhd, led by Mr. Tim Ramphal, implemented the "Integrasi Penternakan Itik Penelor Dengan Penanaman Ubi Sago" project with the support of the Food Security Grant under APPGM-SDG. The project set out to improve the livelihoods of 10 small-scale Dayak farmers in Kampung Jepak, Bintulu by integrating duck farming with sago cultivation. It not only aimed to create a steady income stream through the production of duck eggs (including salted eggs) and meat, but also to promote sustainability by using sago as feed for ducks and recycling duck manure as organic fertiliser for sago plants.

Over the four-month active phase, the project progressed from preparation to production, beginning with the construction of the duck coop, purchase of ducklings and feed, and training on duck care alongside the planting of sago tubers. Regular maintenance followed, with coop cleaning, applying Effective Microorganisms (EM), and continuous guidance on monitoring duck health and growth. By the third month, participants managed to harvest 50 kilograms of sago tubers, which were incorporated into duck feed, while additional sago planting was carried out. By the final month, egg collection had begun, and participants were trained in producing salted eggs, marking the transition from project setup to income-generating activities.

During the course of the project, one of the biggest challenges was the severe flood that struck Bintulu twice between 29 January and 8 February 2025. The flooding created muddy, damp conditions in the duck coop, increasing the risk of disease among the flock. To counter

this, the participants worked together to remove flood sludge, add layers of sand to dry the coop, and regularly spray disinfectant and EM to maintain hygiene and minimise disease risks. The flood also caused significant damage to the sago crops, which were an essential part of the integrated system. As a solution, farmers replanted sago and simultaneously explored alternative feed crops such as water spinach (kangkong) and Trichanthera gigantea (locally known as ketum ayam) to supplement duck feed and diversify sources of nutrition.

Despite these setbacks, the project has successfully provided participants with the opportunity to strengthen their skills and knowledge in duck farming as a means of improving their income. Through hands-on training and guidance, they gained practical knowledge in duck care, health management, performance documentation such as tracking weight and egg production, and understanding the appropriate feed for different growth stages. They also learned to use solar-powered equipment, adopt new technologies, and practise digital record-keeping, which introduced them to more efficient ways of managing their farms. This exposure to modern farming practices has empowered participants to go beyond traditional methods and embrace innovative approaches. The participants expressed great satisfaction with the project, especially as it has already begun to yield results. To date, they have collectively harvested more than 2,400 duck eggs, with an average daily production of around 40 eggs, a promising start toward a sustainable source of livelihood.

Beyond individual benefits, the project makes a meaningful contribution to local food security and community resilience. By demonstrating how duck farming and sago cultivation can be integrated, it highlights the potential of diversified farming systems to generate multiple streams of income while reducing dependence on a single resource. The use of sago as duck feed and duck manure as fertiliser also shows how natural resources can be utilised more efficiently, creating a circular system that minimises waste and maximises productivity.

TUJUH SIMFONI SDN BHD

Parliament: Bintulu, Sarawak
Project Title: Integrasi Penternakan Itik Penelor Dengan Penanaman Ubi Sago
Funding allocated: RM 40,000
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SABAH REGION

ANIMAL BREEDING

Sweet Harvest of The Stingless Bees: The Kg Pepolor Kelulut Journey

HJAwang Resources, through the Penternakan Lebah Kelulut Komuniti Kg Pepolor project in Parliament P178 Sipitang, has been actively empowering the B40 community of Kg Pepolor by introducing sustainable stingless bee (kelulut) farming. Targeting men and women aged 25 to 70, including various Sabah ethnicities, the initiative was carried out under the Trigona Beestari program, a comprehensive module designed not only to produce kelulut farmers but also to shape knowledgeable and independent entrepreneurs capable of contributing to Malaysia's growing kelulut honey industry. With support in the form of breeding seeds (kelulut logs), equipment, technical guidance, and a ready marketing chain, participants were equipped with the skills to manage beekeeping, produce quality honey, and diversify into downstream products such as soaps and other honey-based goods. The harvests recorded after project activities reached 66.248 kilograms of kelulut honey, generating a sales revenue of RM5,300 and proving the potential of the venture as a sustainable income source for local households.

Like many community-driven projects, the journey was not without its challenges. Transparent management of income distribution was vital, as differences in honey yield between farmers could easily cause misunderstandings. Uncertain weather, particularly heavy rains, disrupted outdoor activities and added pressure to ensure safety during harvesting, where the risk of bee stings and injury was always present. Limited proficiency in soap-making techniques, coupled with shortages of raw materials and equipment, also slowed the progress of downstream product development. To address these, the team adopted several solutions, such as preparing detailed checklists of tools and materials to avoid shortages, early monitoring of weather

conditions with contingency planning for program rescheduling, and closer supervision of participants during practical sessions.

From this initiative, two best practices stood out as key factors behind the project's success. The first was the continuous mentor–mentee approach practiced by the solution provider, Puan Arnilah. By prioritizing close guidance and togetherness, she ensured that all 10 participants received consistent support, building their skills and confidence in managing their kelulut ventures. The second was the value of trust-building. Despite being a local from Sipitang herself, Puan Arnilah faced initial difficulties in approaching the Kg Pepolor community. Through patience, openness, and a commitment to sharing knowledge and resources wholeheartedly, she gradually earned the community's trust. Today, the participants not only respect her leadership but also rely on her as a mentor, reflecting the importance of trust as the foundation for community collaboration. These best practices continuous mentorship and cultivating trust demonstrated that technical knowledge alone is not enough; genuine commitment and human connection are equally essential in sustaining impactful community projects.

Participants' Feedback:

"Saya suka dengan kerja pertanian dan penternakan. Mempelajari penternakan kelulut ini buat saya semangat mahu ada jenama sendiri bersama anak-anak. Sekarang ini saya sedang usahakan penanaman sacha inchi secara kecilan dan sekarang menternak kelulut sangat sesuai untuk saya keluarkan produk kesihatan. Saya sangat bersyukur dengan peluang yang sangat sesuai dengan apa yang saya usahakan untuk hari tua saya dan buat anak cucu saya satu hari nanti".

HJAWANG RESOURCES

Parliament: Sipitang, Sabah
Project Title: Penternakan Lebah Kelulut Komuniti Kg Pepolor
Funding allocation: RM40,000
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ANIMAL BREEDING

Turning Waste into Wealth: Sustainable Black Soldier Fly Farming

The Kunak Tourism Community Cooperative Berhad in P188 Lahad Datu has taken a bold step towards sustainable agriculture through its project titled Sustainable Farming of Black Soldier Fly (BSF) Larvae, implemented in Kg Hampilan, Kunak. The initiative was introduced as part of a broader effort to tackle the dual challenges of rising livestock feed costs and ineffective organic waste management, while at the same time fostering environmental sustainability and food security within the community.

The project was designed to demonstrate how BSF larvae could serve as a cost-effective and sustainable alternative protein source for poultry and fish farming. By utilizing organic waste from local markets and restaurants, the larvae not only reduce feed costs but also contribute to effective waste management and the production of organic fertilizer. The project involved constructing a BioPond and mini chicken coop, managing food waste, preparing larvae for livestock, and supplying them to farmers and hatcheries, with the goal of replacing 30% of bran consumption. In addition, participants were trained through both theory and hands-on practice, including the construction of pre-pupa shelves, handling brood and eggs, preparing dried larvae for sale, and even digital marketing through platforms such as Shopee and TikTok.

The project engaged 10 participants, aged 18 to 60, including 7 men and 3 women from diverse ethnic backgrounds: Bajau, Suluk, Bugis, and Chinese. Their collective efforts produced tangible outputs of 92.5 kg of larvae and 155.15 kg of organic fertilizer, proving the project's viability as both a farming innovation and a community-based enterprise. Beyond production, the initiative also raised participants'

awareness of sustainable farming methods, highlighting the potential of BSF farming to protect the environment, reduce waste, and support resilient livestock entrepreneurship.

Despite its successes, the project faced several challenges. Selecting the right larvae for broodstock and collecting eggs without damage required precision and skill, which proved difficult for participants at the early stages. Managing the temperature, humidity, and lighting of the "love cage" for breeding was another hurdle, especially with unpredictable weather and occasional equipment failures. Time commitment was also a challenge, as some participants struggled to balance project responsibilities with their personal and work schedules.

Nevertheless, the cooperative implemented best practices that contributed significantly to the project's sustainability. A rotation system was introduced by Mr. Nurmaksud, the Solution Provider, allowing participants to take turns performing tasks such as cleaning and monitoring the site according to their availability. This system ensured consistent project management while accommodating participants with busy schedules. Additionally, the project's emphasis on good waste management proved highly beneficial, as organic waste from nearby vegetable and fish markets was repurposed into compost to feed BSF larvae. This practice not only reduced waste in Kg Hampilan but also contributed to broader sustainable development goals by promoting environmental responsibility and circular economy principles.

In conclusion, the Sustainable Farming of Black Soldier Fly Larvae project in Kunak has demonstrated how innovative agricultural practices can address pressing community needs, foster environmental stewardship, and build local resilience. The experience provided participants with practical skills, strengthened community cooperation, and showcased a model that could be replicated in other rural areas across Sabah.

Participants' Feedback:

"Aktiviti ini buat saya sedar betapa ketelitian penting dalam pengendalian telur BSF. Saya belajar kawal persekitaran love cage dan kini yakin untuk mulakan ternakan sendiri!"

KOPERASI KOMUNITI PELANCONGAN KUNAK BERHAD

Parliament: Lahad Datu, Sabah
Project Title: Ternakan Lestari Larva Black Soldier Fly (BSF)
Funding allocation: RM40,000
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AGRICULTURE

Seeds of Change: Organic Farming and Crop Management at Social Lab

Tumparak Sdn. Bhd., based in P180 Keningau, successfully implemented the Social Lab: Planting and Organic Plant Management project in Kg Kuyungon, Tambunan, with the vision of creating a model of sustainable agriculture for Sabah. Designed as a platform for learning and innovation, the Social Lab promoted environmentally friendly farming practices, enhanced community livelihoods, and fostered collaboration among farmers, researchers, and government agencies. Its mission was not only to empower local farmers with knowledge and skills but also to build a sustainable agricultural ecosystem that could inspire replication in other communities.

In Phase 1, the project achieved a major milestone by constructing 10 greenhouses, each of which generated between RM1,200 and RM2,000 per harvest, depending on the crop variety. This achievement significantly increased community income and attracted visitors eager to purchase organic produce and learn sustainable farming practices. The success also inspired surrounding communities to request organic farming training, and it led to the establishment of Community-Based Eco-Tourism Kuyungon (CoBETK), which has since become a new attraction for Kampung Kuyungon.

Building on these accomplishments, Phase 2 expanded the Social Lab with 10 additional greenhouses to meet the growing demand for organic produce. By this stage, the project had already gained recognition, with demand for its vegetables spreading from Tambunan to Kota Kinabalu, Tamparuli, and Penampang. The Social Lab also applied for MyOrganic certification and underwent continuous monitoring by the Tambunan District Agriculture Department, further enhancing its credibility and ensuring high standards.

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Throughout both phases, participants underwent 12 structured training sessions covering greenhouse construction, sustainable water management, composting, biological pest control, soil conservation, climate-smart agriculture, and digital marketing strategies. Mentorship and site visits provided continuous guidance to ensure participants could apply techniques effectively. In total, the project involved 10 participants, 7 women and 3 men from the Dusun ethnic group, who successfully adopted organic farming practices and improved their farm management skills.

While the project was marked by many achievements, it also faced challenges. The construction of the Biochar Machine required considerable time, and vermicompost production was delayed due to limited worm supply. However, these setbacks were mitigated through early training, problem-solving, and strong collaboration among participants.

One of the most important best practices demonstrated in both phases was the consistent emphasis on organic farming. Under the leadership of the solution provider, Mr. Nathaniel Maikol, participants fully adopted organic inputs such as compost and fertilizers produced on-site. As a result, several participants have successfully registered and obtained MyOrganic certification, strengthening the market position of their produce and enhancing consumer trust.

The second-best practice implemented in this project is the adoption of a fixed pricing system. All participants sell their vegetables at a uniform rate of RM12 per kilogram. This approach not only ensures

fairness among participants but also creates price consistency in the market. Based on participant feedback, buyers have generally accepted this price, recognizing the superior quality of the vegetables produced.

In conclusion, with Phase 1 and Phase 2 now completed, the Social Lab has established itself as a proven model of community-driven sustainable agriculture. It has increased household incomes, promoted eco-tourism, empowered Dusun farmers with modern organic practices, and strengthened food security in Tambunan while contributing to environmental sustainability.

Participants' Feedback:

"Saya telah mempelajari secara menyeluruh tentang penghasilan baja organik serta kaedah kawalan penyakit dan serangan perosak terhadap tanaman. Pengetahuan mengenai pengeluaran makanan mampan, inovasi R&D pertanian, serta aspek pemasaran dan jualan langsung turut dikongsikan. Ilmu ini amat berguna untuk diaplikasikan dalam pertanian akan datang"

TUMPARAK SDN BHD

Parliament: Keningau, Sabah
Project Title: Social Lab: Penanaman dan pengurusan tanaman secara organic
Funding allocation: RM80,000
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AGRICULTURE

Golden Fields: Boosting Local Economy Through Organic Sweet Corn

In Kg Rasak Laut, Kota Marudu, Borneo Fertilyst successfully implemented the Economic Development Through Organic Sweet Corn Crops project under Phase 1 and Phase 2, aimed at empowering the Tandek community through sustainable agriculture. Designed to reduce dependence on chemical inputs while creating economic opportunities, the project introduced organic farming practices that combine environmental care with community-based entrepreneurship.

During Phase 1, the project established a community organic corn farm on 1.5 acres of land. Participants, comprising youth, housewives, and senior citizens from diverse ethnic backgrounds such as Bajau, Dusun, Sino-Kadazan, and Malay received training in organic cultivation, soil management, pest control, and entrepreneurship. They produced approximately 4,000 corn plants, earning RM3,517 in income while repurposing crop residues as animal feed. In addition, 2,000 liters of liquid organic fertilizer, 400 kg of solid organic fertilizer, and 1,000 liters of organic insect repellent were produced, reducing dependency on chemical inputs. Twelve training sessions and networking opportunities with mentors laid the groundwork for stronger farming skills and entrepreneurial readiness.

Building on this foundation, Phase 2 focused on scaling up operations and integrating technology to improve efficiency. Participants were trained in modern agricultural practices, including the use of machinery such as tillers, mixers, and crushers, as well as innovations like drones and IoT systems for farm management. Crop diversification was introduced with integrated planting, combining sweet corn with serai and chili, which generated additional income of

RM990 (RM750 from jagung pulut, RM150 from serai, and RM90 from lada). Upgrades to irrigation systems and shade structures also enabled the group to adapt to hot and dry weather conditions, while problem-solving skills were strengthened through hands-on guidance by the solution provider, Mrs. Siti Subailah.

The journey was not without challenges. A newly purchased machine required technical adjustments, which temporarily slowed operations. The team overcame this by calling a mechanic for repairs, rearranging the farm work schedule, and relying on manual methods in the meantime. Prolonged hot weather also tested resilience, but this was addressed by increasing watering frequency, installing storage tanks, and shading sensitive crops. These adaptive measures underscored the importance of flexibility and teamwork in farming.

Two best practices emerged as central to the project's success. First, the adoption of modern agricultural practices paired with systematic group management. Through continuous mentoring, a rotation system, and record-keeping, participants worked more efficiently and improved productivity. Second, the practice of integrated cropping not only diversified income but also built awareness of sustainable agriculture, soil fertility, and natural resource conservation. These approaches ensured that the project was not just about producing crops, but about fostering long-term resilience and sustainability for the community.

Together, the completion of both phases demonstrated how organic farming, when coupled with technology, training, and collective effort, can uplift rural communities. The project has become a model of how agriculture can drive both economic development and environmental stewardship in Kota Marudu.

Participants' Feedback:

"Zaman dulu, kami memang selalu buat kerja kampung sama-sama. Tapi sekarang, rasa itu datang balik bila ada projek ni. semua turun padang. Rasa seronok bila boleh kerja sama, bergurau sambil berkebun. Ini bukan saja pasal tanam jagung, tapi juga tanam semangat kekeluargaan dalam kampung kita."

BORNEO FERTILYST

Parliament: Kota Marudu, Sabah
Project Title: Pembangunan Ekonomi Melalui Tanaman Jagung Manis Secara Organik Fasa 2
Funding allocation: RM80,000
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AGRICULTURE

Roselle Rising: Empowering Communities Through Cultivation and Innovation

Aurora Mutiara Enterprise, a community-driven solution provider based in Penampang, has been at the forefront of empowering B40 families, housewives with limited financial resources, single mothers, and unemployed youth through innovative agricultural projects. In Phase 1 of its initiative "Empowering Communities through Roselle Cultivation and Innovation," the organization introduced a holistic community garden model that integrates sustainable farming, product innovation, and digital marketing.

Located in Kg Timpoluon Sokid, Babagon Penampang, and Kg Raganan Mongkusilad, Moyog Penampang, the project involved ten female participants aged 27 to 58, all of whom are from the Dusun native community. By focusing on organic roselle cultivation, the project was designed to enhance agricultural skills, generate sustainable income, and promote the production of value-added local products for both domestic and international markets.

The project brief outlined a series of training and workshops covering seedling preparation, soil tilling, organic composting, pest management, harvesting, packaging, and product innovation. Beyond farming, the program equipped participants with skills in digital marketing, basic accounting, and business licensing to strengthen their entrepreneurial capacity. A total of 500 roselle trees were successfully cultivated using organic methods, and participants gained hands-on experience in producing a wide range of value-added products such as jam, wine, tea, halwa, cordial, ice cream, and pudding. These products sold out during the project's inauguration, highlighting their strong market potential even with simple packaging and labelling. Exposure to platforms like WhatsApp Business and

TikTok further enhanced participants' confidence in promoting their products, while community-driven activities such as gotong-royong fostered collaboration and solidarity. Ultimately, the project demonstrated that roselle cultivation holds significant potential both as a sustainable livelihood opportunity and as a contributor to strengthening local food systems.

Despite its successes, the project faced several challenges. Continuous rainfall during November and December disrupted irrigation system installations and affected soil conditions, while pest attacks persisted despite organic control measures. In Kg Timpoluon, soil fertility issues caused damage to roselle roots, reducing plant vigor and yields. Scheduling difficulties arose due to local festivals, which temporarily delayed farming activities, while budget shortfalls created operational pressures until a strategic partner provided credit support. These obstacles highlighted the vulnerability of small-scale community projects to environmental, financial, and social disruptions.

At the heart of the project's success was the practice of gotong-royong, a deeply rooted cultural value that emphasizes collective effort and mutual cooperation. Every activity, from land preparation and irrigation to harvesting and product packaging, was carried out together by participants. This approach not only accelerated farming tasks but also fostered solidarity, trust, and a strong sense of shared ownership within the group. The consistent application of gotong-royong proved to be a powerful driver of efficiency, teamwork, and community spirit, making it one of the most valuable lessons for sustaining future initiatives.

Equally significant was the strong support from participants' families, particularly their husbands, who played an active role in ensuring the smooth implementation of the project. As most participants were housewives, the encouragement and direct involvement of their family members made a crucial difference. Husbands and relatives assisted with labor-intensive tasks such as installing water tanks and setting up irrigation systems, allowing participants to focus on cultivation and product innovation. This visible support from family members highlights the importance of

shared responsibility and demonstrates that community projects thrive best when households work together.

Together, the practices of gotong-royong and family support created a strong foundation of cooperation, resilience, and inclusivity. Alongside community involvement, continuous training, and consistent monitoring, these best practices further supported by collaboration with solution partners and strategic stakeholders ensured the project's sustainability and laid the groundwork for scaling up roselle cultivation in the future.

AURORA MUTIARA ENTERPRISE

Parliament: Penampang, Sabah
Project Title: Empowering Communities through Roselle Cultivation and Innovation
Funding allocation: RM40,000
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SUSTAINABLE AGRICULTURE: COMMUNITY RESILIENCE THROUGH COMMUNITY FARMING

The **"Sustainable Agriculture: Community Resilience through Community Farming"** publication highlights 31 inspiring community farming stories that strengthen grassroots resilience across Malaysia. These initiatives showcase innovative practices in agriculture and integrated farming, directly addressing food security while creating opportunities for sustainable income and environmental stewardship.

Supported by APPGM-SDG through small grants of RM40,000 per micro-project, each initiative was implemented over a structured four-month phase, followed by six months of monitoring to ensure lasting impact. By tailoring solutions to local needs, solution providers and communities worked hand in hand to build scalable models of sustainable agriculture.

This publication pays tribute to grassroots leaders, the unsung heroes whose dedication and creativity turned challenges into opportunities. Their efforts demonstrate that food security and empowerment are deeply connected, offering a blueprint for resilient, inclusive, and sustainable development.

Society for Promotion of Sustainable Development Goals

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