



Localizing SDG in Eastern Region Malaysia: Key Challenges of Project Impact Evaluation

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Abstract: The Solution Provider Project for the community throughout Peninsular Malaysia, Sabah, and Sarawak is one of the remarkable flagship programs of The All-Party Parliamentary Group Malaysia – Sustainable Development Goals by Civil Society Organization Alliance (APPGM-SDG CSO). With the clear aim to promote Sustainable Development Goals (SDGs) in Malaysia, several projects for 2022 have been implemented throughout the country including 10 solution projects in the Eastern Region, particularly in Kelantan. The solution project implementors were given financial assistance to run skill-based training and community-based projects for community development, empowerment, and an industry-ready talent pool. This paper intends to discuss the key challenges and project impact evaluation carried out on behalf of APPGM-SDG. The methodology employed was a mixed method – embedded design approach to assess the project impact evaluation. Both qualitative and quantitative approaches were used to evaluate the impact of the project. Data was gathered from proposal and project monitoring documents, focus group discussions (FGD), and site visits. Findings from solution providers, project beneficiaries, and evaluators' observations were then combined and triangulated to provide a more in-depth understanding of the impact of the solution projects. There were several key challenges found in the solutions projects from the perspectives of solution providers, project beneficiaries, and project evaluators in the Eastern region discussed in this paper. This paper also highlights several recommendations to overcome those challenges via a clear communication plan between solution providers, APPGM representatives, and impact evaluators to facilitate and strengthen the impact evaluation process. The challenges discussed in this paper are hoped to better inform project implementors and policymakers in their decision-making, program design, and policy papers, particularly in the areas of economic, social, and environmental with a clear target SDG deliverables and target group.

Keywords: APPGM-SDG; solution providers, eastern, solution projects, impact evaluation, TVET

1. Introduction

The United Nations Sustainable Development Goals (SDGs) is a framework of 17 objectives designed to improve global economic, social, and environmental development (UN, 2023). The SDGs provide a shared language for project progress understanding and sustainability reporting towards achieving their sustainability goals. The All-Party Parliamentary Group-SDG (APPGM-SDG) in Malaysia is a cross-party group consisting of Malaysian parliamentarians who are committed to advancing SDGs in Malaysia (Parliament of Malaysia, 2023).

The objective of this paper is to assess the impact of the solution projects implemented in the Eastern Region of Malaysia, particularly in Kelantan. By employing a mixed-method embedded design approach, both qualitative and quantitative methods were utilized to evaluate the effectiveness, outcomes, and challenges of the projects. Data was collected and analysed using project documentation, focus group discussions, and site visit observations. The findings provide a comprehensive understanding of the impact of the solution projects, highlighting the challenges faced by solution providers, project beneficiaries, as well as project evaluators. This evaluation sheds light on decision-making, program designing, and future recommendations to overcome challenges and enhance impacts in achieving the targeted SDGs.

2. Literature Review

2.1 Development and Equality in East Coast Peninsular Malaysia

The implementation of the APPGM-SDG program in East Coast Peninsular Malaysia is an imperative one. The East Coast of Peninsular Malaysia includes Kelantan, Terengganu, and Pahang states which present a unique landscape characterized by its distinct development challenges and initiatives to achieve greater equality. The challenges can be understood by looking at various dimensions of development, gender equality, economic struggles, flood impacts, and entrepreneurship in this region.

In terms of development, states like Kelantan in particular, tend to be associated with slow or delayed development as well as poverty. In 2019, it was reported that 7 out of 28 poorest districts in the country, namely Tumpat, Gua Musang, Jeli, Kuala Krai, Tanah Merah, Pasir Mas, and Pasir Putih are in Kelantan. These districts lack crucial infrastructures such as roads and clean water supply (Abdullah, 2019). Three years later, reports by the World Bank confirmed that Kelantan remains one of the states with the lowest income average and high poverty rate (World Bank, 2022).

The poverty rate can be linked to the labour force participation rate (LFPR) and unemployment rate (UR). As reported by the Labor Force Survey Report 2023, Kelantan and Terengganu have the lowest LFPR with 61.4% and 60.3%, respectively. These two states also have the highest UR with 3.9% for Kelantan and 4.2% for Terengganu (Department of Statistics, 2023). Kelantan and Terengganu's economic struggles are reflected in a decline in GDP which significantly affects economic activities like agriculture, mining, manufacturing, construction, and services. This is exacerbated due to the COVID-19 pandemic which further leads to other challenges such as bankruptcies and losses (Zulkepli & Mohd Idris, 2022).

The low workforce in East Coast Peninsular Malaysia can also be further discussed using the gender lens. It was revealed by the World Bank that economic participation among married women is particularly low. To tackle this challenge, the Malaysian East Coast Economic Region (ECER) policy introduces socio-economic programs aimed at enhancing gender equality and promoting women's active participation in the workforce (Abdul Latip et al., 2020). Though initiatives have been found to increase women's occupational involvement, uplift women, and promote gender equality, many more efforts by various stakeholders are needed to further create a positive impact on gender equality and women's empowerment throughout East Coast Peninsular Malaysia.

Women empowerment has also been discussed by scholars via their entrepreneurial activities. It has been claimed that Malaysia's SME sector sees active involvement of women, especially in Kelantan. Research findings have found that Kelantan businesswomen tend to engage in sustainable businesses such as dry food due to consistent demand and lower costs. These businesswomen tend to maintain their businesses based on their spiritual element of patience and integrity (Rekarti et al., 2019). However, to further elevate their income level and business growth, financial support, as well as entrepreneurial competencies, are needed, which has been limited.

The connection between income improvement and life expectancy is another crucial aspect highlighted. Previous research suggests that enhancing income levels can effectively prolong life expectancy, particularly in states with lower household incomes and consequently lower life expectancies. Total life expectancy for Kelantan and Terengganu was found to be the lowest of the 14 states. Terengganu's total life expectancy reported was 71.5 years while it is 72.1 years for Kelantan. This can be contrasted to 'richer' states such as the Federal Territory of Kuala Lumpur with a total life expectancy of 76.5 years, 75.1 years for Penang, and 75.4 years for Selangor. This underscores the significance of socio-economic programs in enhancing the well-being of communities (Tafran et al., 2020).

The East Coast is also susceptible to natural disasters, particularly floods, which affect the economic stability of the people and the state. Kelantan, for instance, has been frequently affected by devastating floods. The 2014 flood, described as one of the worst in a century, highlights the destructive potential of such events. The continuous heavy rains from December 14th to 19th resulted in significant damages, casualties, and estimated losses of 2.8 billion ringgit. Floods have multifaceted impacts on livelihoods, spanning economic, environmental, and health dimensions. Various literatures discuss the adverse effects on households' financial stability, property damage, and even mental health. Moreover, flood-induced environmental changes have far-reaching consequences for communities, their ways of life, and their livelihoods (Zulkepli & Mohd Idris, 2022).

The abovementioned issues reveal a complex and dynamic landscape in East Coast Peninsular Malaysia, characterized by development challenges, gender equality initiatives, economic struggles, and natural disasters. The

region's unique context necessitates tailored strategies to promote sustainable development, empower marginalized groups, and ensure the resilience of communities. Initiatives that address economic disparities, enhance disaster preparedness, promote sustainable industries, and empower women are crucial steps toward a more equitable and prosperous future for this region.

2.2 TVET as an Effective Development Tool

To manage gender inequality and alleviate poverty, the Malaysian government introduced multidimensional initiatives and policies to promote economic growth (Awang et al., 2016; Syahirah et al., 2015). Education and employment opportunities were among the main initiatives carried out and among the dominant themes that surfaced when discussing poverty alleviation and improving well-being. Education as argued by Pozi et al. (2021), helps shape the well-being of both individuals and society, thus, empowering them via knowledge and skills acquisition that is beneficial to sustain their lives. This includes the improved elements of technical and soft skills which eventually increase the chances of sustainable employment and career development regardless of the work setting (Salleh et al. (2017). Technical skills have been institutionalized in Malaysia through the Technical and Vocational Education and Training, better known as TVET. The training is quite different from the conventional academic programs as TVET is an education training that aims to develop knowledge and skills relating to job context and work setting (Cabrerros, 2023). Through TVET training, the skills acquired from the training program are believed to be able to transform knowledge, expertise, and skills into a competency set of skills that better equip individuals to be more agile and highly adaptable in the job market (Salleh et al., 2016).

Tiwari and Malati (2023) echoed that good quality TVET program in which investment in education and skill enhancement is a powerful tool for empowerment. Their study found that knowledge and skills enhancement are the sound and solid vehicle to empower women in India. The Government of India realized that women can be better empowered via education and skills enhancement which provides them with a better chance of economic well-being and employment opportunities. It is evident that the Labor force participation rate in India has increased via the TVET program.

As Malaysia moves into a high-income and developed nation, technical and vocational education as well as training programs such as TVET provide a comprehensive solution to social and economic problems (Sulaiman & Salleh, 2016). It is also important to equip community members with relevant knowledge and skills for long-term survival as well as active social change agents (Syarifah Shahirah et. al, 2018). TVET is arguably an important driver that facilitates job creation opportunities (Abdul Wafi et al., 2023). Training in TVET provides additional career pathways to youths and young adults and hence can reduce the unemployment rate due to an increased talent pool and more job creation. A hands-on approach or 'learning by doing' provides a high transfer rate of knowledge and skills. This not only results in competent individuals but also promotes the entrepreneurial mindset of individuals to make a living with the knowledge and skills they acquired.

Similarly, the Government of Maldives also realized that TVET is a highly regarded feasible mechanism for social equity, inclusion, and sustainable development (Sunny et al., 2023). It is also a crucial vehicle to develop and equip their youth for better career development despite TVET being perceived as a second-class option among their youth. Although the tourism and fisheries sectors are still significant economic contributors in Maldives, the rapid development of the information and communication technologies (ICT) sector has gained popularity among the youth. Thus, the TVET program that caters to the growing demand for ICT paves the way for career opportunities, growth, and advancement. It is evident that TVET can fill the loopholes and gaps in the technical field.

As APPGM-SDG solution projects are community-based and concerned about community development, some projects that were evaluated and covered in this paper were TVET-related programs. The program implementation and challenges were highlighted and discussed in the subsequent sections below.

3. Background of Solutions APPGM Project

The APPGM-SDG was formed on 19 October 2019 and supported by the United Nations Development Program (UNDP) Malaysia and the Malaysian Global Compact Network (MGCN) to foster SDGs through the relevant programs for the community on the ground such as the Solution Provider Program.

The Solution Providers Project, organized by The All-Party Parliamentary Group Malaysia – Sustainable Development Goals on Civil Society Organization Alliance (APPGM-SDG), is a remarkable flagship program aimed at promoting the Sustainable Development Goals (SDGs) in Malaysia (Ramli & Daud, 2022). This project holds great significance as it seeks to address the various challenges and gaps in achieving the SDGs throughout Peninsular Malaysia, Sabah, and Sarawak. In 2022, numerous solution projects were implemented across the country. Altogether there are 87 projects were carried out in six (6) zones – 15 Sabah, 8 Southern, 13 Sarawak, 18 Central, and 23 Northern. including ten (10) projects in the Eastern Region, particularly in Kelantan. These projects, designed to target specific SDGs, received financial assistance to benefit the community. Evaluating the impact of these projects is crucial in determining their effectiveness, informing decision-making, improving program design, and guiding specific policy

areas, particularly in the domains of economy, society, and the environment, with a focus on meeting the SDG deliverables and benefiting the target groups (Otieno, 2019).

All Parliamentary Parties Group Malaysia for SDGs or APPGM-SDG was established in 2019 to localize SDGs to the Malaysian context. Localizing SDGs to the Malaysian context by APPGM-SDG involves providing solutions or projects to address any 17 SDGs mandates underlined by the United Nations (UN) (UN, 2023). There are four (4) phases of APPGM-SDG program execution namely: (i) Issue mapping (Design), (ii) Capacity Building (Planning), (iii) Solutions Implementation, and (iv) Impact Evaluation. Impact Evaluation is the last phase of APPGM-SDG execution for all solutions projects. There are three (3) main methodologies employed to conduct impact evaluation namely: (i) impact identification, (ii) impact verification, and (iii) impact validation.

The first impact identification involves reviewing all Proposals, Progress Reports, Monthly (MTR) Reports, and Completion Reports to identify the impacts of the project. Evidence of impacts can be found in the outputs such as in Written Reports, Modules, Videos, and Testimonials. By conducting impact identification, the evaluator(s) can identify the expected impacts based on the proposed outcomes of each project.

Secondly, impact verification is done based on the inputs from the beneficiaries of the project through an interview with a focus group discussion session (FGD) as well as site visit (SV) observation by the evaluator(s). The objectives of impact verification are threefold namely: (i) to listen to impact from the point of view of beneficiaries; (ii) to verify findings from document review; and (iii) to include other observations for report writing of the impact. Through impact verification, the evaluator(s) can verify the impacts of the projects on the beneficiaries.

Lastly, impact validation is done through which the evaluator(s) can further confirm or negate the impacts of the project with relevant stakeholders such as the MPs Officers or APPGM-SDG Regional Officer. This impact validation can further testify to the success or failure of the projects in addressing the relevant SDGs. This impact evaluation project of APPGM-SDG Solutions Projects Cohort 2021 completed in 2022 was conducted based on six (6) major elements embedded in the APPGM module particularly (i) deep (personal), (ii) wide (network), (iii) clear (skills) and (iv) high (system). The other two (2) dimensions are (v) Specifications of SDGs and (vi) the gender impact.

The APPGM-SDG projects aim to provide sustainable solutions in three (3) main aspects namely (1) economy, (ii) social, and (iii) environment. The economic solutions or projects aim to create or increase participants' income through entrepreneurial initiatives. While the social solutions or projects cover key national issues and focus on sustainable solutions. Environment solutions or projects, on the other hand, aim for environmental conservation, especially more endangered ecosystems. Table 1 below demonstrates the classification of solutions for the APPGM-SDG project in the Eastern Region.

Table 1 - Classification of solutions for the APPGM-SDG project

No	Project Code	Project Name	Classification of Solutions		
			Ec	S	Ev
1	Y21-SP013	<i>Rumah Burung Walet</i> (RBW) / Swallow House	/	/	
2	Y21-SP014	Financial Management and E-Marketing Program	/	/	
3	Y21-SP018	Ironworks Mentor-Mentee Project	/		
4	Y21-SP038	Interpersonal-Organizational Interaction Course		/	
5	Y21-SP039	Community "Gotong-Royong" Repair of Old House		/	
6	Y21-SP045	Development of the Mushroom Industry in Sungai Rual	/	/	
7	Y21-SP085	<i>Tapak Perniagaan Kiosk</i> / Kiosk Business Site	/	/	
8	Y21-SP086	<i>Agro Ternak Belia</i> Pasir Pekan / Youth Livestock Agro Pasir Pekan	/		
9	Y21-SP087	<i>Penghasilan Cocopeat / Serbuk Sabut</i> (Pulau Teluk Renjuna) / Cocopeat/Coir Powder Output (Pulau Teluk Renjuna)	/		/
10	Y21-SP088	<i>Pemasaran Digital Usahawan Kecil</i> Parlimen Tumpat / Digital Marketing of Small Entrepreneurs Tumpat Parliament	/	/	
Total Classification of Solutions:			8/10	7/10	1/10
Percentage (%)			80%	70%	10%

Note: Ec=economic solution; S=social solution; Ev=environment solution

For the Eastern Region, this impact evaluation focuses on ten (10) projects conducted in the year 2022. One (1) project is in Jeli Kelantan (SP045), four (4) projects are in Tumpat Kelantan (SP085, SP086, SP087, and SP088) while the remaining five (5) projects are in Pasir Mas Kelantan (SP013, SP014, SP018, SP038, and SP039). Table 2 below summarizes the project's background and the location of the solution projects in the Eastern Region.

Table 2 - Summary of the solution projects background

No	Project Code	Project Name	Location
1	Y21-SP013	<i>Rumah Burung Walet</i> (RBW) / Swallow House	Pasir Mas, Kelantan
2	Y21-SP014	Financial Management and E-Marketing Program	Pasir Mas, Kelantan
3	Y21-SP018	Ironworks Mentor-Mentee Project	Pasir Mas, Kelantan
4	Y21-SP038	Interpersonal-Organizational Interaction Course	Pasir Mas, Kelantan
5	Y21-SP039	Community "Gotong-Royong" Repair of Old House	Pasir Mas, Kelantan
6	Y21-SP045	Development of the Mushroom Industry in Sungai Rual	Jeli, Kelantan
7	Y21-SP085	<i>Tapak Perniagaan Kiosk</i> / Kiosk Business Site	Tumpat, Kelantan
8	Y21-SP086	<i>Agro Ternak Belia</i> Pasir Pekan / Youth Livestock Agro Pasir Pekan	Tumpat, Kelantan
9	Y21-SP087	<i>Penghasilan Cocopeat / Serbuk Sabut</i> (Pulau Teluk Renjuna) / Cocopeat/Coir Powder Output (Pulau Teluk Renjuna)	Tumpat, Kelantan
10	Y21-SP088	<i>Pemasaran Digital Usahawan Kecil</i> Parlimen Tumpat / Digital Marketing of Small Entrepreneurs Tumpat Parliament	Tumpat, Kelantan
Total		10 solution projects: Jeli (1 project); Pasir Mas (5 projects); Tumpat (4 projects)	

4. Methodology

This paper aims to consolidate the impact evaluation of ten (10) SDG projects in the Eastern Region, specifically in Kelantan. The primary objective of this paper is to analyse the impacts of the solution projects in relation to their targets and indicators set for achieving the SDGs. The evaluation focuses on assessing the effects of these projects on the beneficiaries using various criteria or dimensions namely: (i) deep (personal), (ii) wide (network), (iii) clear (skills), (iv) high (system), (v) specifications of SDGs, and (vi) the gender impact. Among the ten (10) projects in the Eastern Region, one (1) project is from Jeli Kelantan, four (4) projects are from Tumpat Kelantan, and five (5) projects are from Pasir Mas Kelantan.

Rooted predominantly based on a qualitative approach, the evaluation of these projects employed three (3) methods, namely document analysis (DA), focus group discussion (FGD), and site visit (SV). Primary data that involves focus group discussions (FGD), site visits (SV), and primary project documents allow for a more in-depth understanding of the outcomes of solution projects. The document analysis (DA) involved examining project-related documents such as the Project Proposal, Monthly Report, and Final Report, as well as the photos and videos attached to these reports. All ten (10) projects underwent document analysis during the month of October 2022. The details of the document analysis are provided in individual reports.

Additionally, four (4) projects were selected for the FGD session, which aimed to validate the project impacts as documented in the reports and obtain feedback from beneficiaries' perspectives. For the FGDs, selected beneficiaries from more than one-third of all projects attended the sessions. The FGD session took place on 12 November 2022 from 10.00 a.m. until 2.00 p.m. at UiTM Kota Bharu, Kelantan, and involved two (2) beneficiaries representing each of the selected projects (SP014, SP038, SP085, SP086). Details of the FGD session can be found in individual reports.

Another evaluation method used was the site visit (SV), which involved visiting the project sites to confirm and validate the feedback received during the FGD session. Initially, four (4) projects that were chosen for the FGD session shall also involve SV observation. Nonetheless, due to a flash flood incident, only three (3) projects (SP014, SP085, SP086) underwent site visits on 11 and 13 November 2022. Table 3 below depicts the methods of impact evaluation for all ten (10) projects within the Eastern Region.

Table 3 - Method for impact evaluation

No	Project Code	Project Name	Evaluation Method
1	Y21-SP013	<i>Rumah Burung Walet</i> (RBW) / Swallow House	DA
2	Y21-SP014	Financial Management and E-Marketing Program	DA, FGD, SV
3	Y21-SP018	Ironworks Mentor-Mentee Project	DA
4	Y21-SP038	Interpersonal-Organizational Interaction Course	DA, FGD
5	Y21-SP039	Community "Gotong-Royong" Repair of Old House	DA
6	Y21-SP045	Development of the Mushroom Industry in Sungai Rual	DA
7	Y21-SP085	<i>Tapak Perniagaan Kiosk</i> / Kiosk Business Site	DA, FGD, SV
8	Y21-SP086	<i>Agro Ternak Belia</i> Pasir Pekan / Youth Livestock Agro Pasir Pekan	DA, FGD, SV
9	Y21-SP087	<i>Penghasilan Cocopeat / Serbuk Sabut</i> (Pulau Teluk Renjuna) / Cocopeat/Coir Powder Output (Pulau Teluk Renjuna)	DA
10	Y21-SP088	<i>Pemasaran Digital Usahawan Kecil</i> Parlimen Tumpat / Digital Marketing of Small Entrepreneurs Tumpat Parliament	DA
Total		DA: 10 projects; FGD: 4 projects; DV: 3 projects	

Note: DA=Document Analysis; FGD=Focus Group Discussion; SV=Site Visit

5. Findings

5.1 Deliverables of Solutions

Based on the evaluation held across ten (10) solution projects, it was found that there are several deliverables of solutions based on SDGs mandates addressed by the solution projects namely SDG1: No poverty; SDG5: Gender Equality; SDG8: Decent Work and Economic Growth; and SDG17: Partnership for Goals. In detail, 9/10 solution projects address SDG1, 2/10 solution projects address SD5: Gender Equality, 6/10 solution projects address SDG8, and lastly only 1/10 address SDG17.

Further evaluation also indicates that Economic solution (EC) was the most popular target deliverable by the solution projects, followed by social solution (S) and environment solution (Ev). The detail of the target deliverables is as follows: 8/10 of the solution projects concentrated on an economic deliverable, 7/10 of the solution projects aimed at a social deliverable, and 1/10 of the solution projects addressed environment solutions. Table 4 below summarizes the project's target SDG mandates and target deliverables for the Eastern Region.

Table 4 - Summary of the projects, target SDG mandate and target deliverables

No	Project Code	Project Name	Target SDGs Mandate	Target Deliverable
1	Y21-SP013	<i>Rumah Burung Walet (RBW)</i> / Swallow House	1, 8	Ec, S
2	Y21-SP014	Financial Management and E-Marketing Program	1, 5, 8	Ec, S
3	Y21-SP018	Iron works Mentor - Mentee Project	1, 8	Ec
4	Y21-SP038	Interpersonal-Organizational Interaction Course	17	S
5	Y21-SP039	Community "Gotong-Royong" Repair of Old House	1	S
6	Y21-SP045	Development of Mushroom Industry in Sungai Rual	1	Ec, S
7	Y21-SP085	<i>Tapak Perniagaan Kiosk</i> / Kiosk Business Site	1, 8	Ec, S
8	Y21-SP086	<i>Agro Ternak Belia</i> Pasir Pekan / Youth Livestock Agro Pasir Pekan	1, 8	Ec
9	Y21-SP087	<i>Penghasilan Coccopeat / Serbuk Sabut</i> (Pulau Teluk Renjuna) / Coccopeat/Coir Powder Output (Pulau Teluk Renjuna)	1, 8	Ec, Ev
10	Y21-SP088	<i>Pemasaran Digital Usahawan Kecil</i> Parlimen Tumpat / Digital Marketing of Small Entrepreneurs Tumpat Parliament	1, 5	Ec, S
Total		Target SDG: SDG1: 9 projects; SDG5: 2 projects; SDG8: 6 projects; SDG17: 1 project Target Deliverables: Economic: 8 projects; Social: 7 projects; Environment: 1 project		

Note: Ec=economic solution; S=social solution; Ev=environment solution

Further analysis revealed that most projects were targeted at the B40 communities and aimed to uplift their economic and social well-being. Most of the solutions that provide strategies to uplift the economic and social well-being of the beneficiaries are targeted and concentrated on Technical and Vocational Education and Training (TVET) elements. TVET program includes formal, non-formal, and informal learning that prepare young people with the knowledge and skills required in work or in social context in which they can utilize the knowledge and skills for life survival.

UNESCO (2023) has developed the TVET Strategy (2026-2021) to align with SDG Goal 4 (Inclusive and Equitable Quality Education and Lifelong Learning). TVET comprises education, training, and skills development relating to a wide range of occupational fields, production services, and livelihoods. It empowers individuals, organizations, enterprises, and communities and fosters employment, decent work, and lifelong learning thereby promoting inclusive and sustainable economic growth and competitiveness, social equity, and environmental sustainability.

The projects conducted in the Eastern Region mostly involved both gender, male and female. The projects targeted to provide equal opportunities without discriminating against any gender. In a study about women and TVET, Tiwari and Malati (2023) argue that TVET plays a significant role in economic contribution and women empowerment. With TVET knowledge and skills that they acquired, allow them to have better control of their lives and improve their influence on society. Formal and informal training via TVET, led to a multiplying effect of these women's livelihood, thus increasing their ability to contribute effectively to society. This signifies that TVET could help to empower women via skills and knowledge for survival.

Besides women, most of the beneficiaries of the projects involved youth. The projects targeted to equip the youth with relevant knowledge and skills for their survival. A study by Sunny et al (2023) in Maldives also concurs that TVET increases the chances for better career development, especially among youth. They affirm that TVET provides better employment opportunities. They have also underlined several feasible strategies that could elevate the success of

TVET programs namely outstanding trainers, strong and purposeful leadership, care and concern for trainees, excellent assessment and certification systems, support from businesses, parents, and society, sufficient resources, the use of modern technologies, and well-balanced, challenging, and responsive sustainable program. This proves that TVET with the right target group could be the best tool or method for the B40 to get out of the cocoon of poverty.

Interestingly, a study among TVET graduates by Abdul Wafi et al (2023) discovered that the TVET program has vast potential to facilitate youth especially fresh graduates from being job seekers to job creators. Thus, the talent management module as a basic building block for TVET program to success need to be developed considering nine (9) major components namely: (i) Communication, (ii) Critical Thinking and Problem-Solving Skills, (iii) Teamwork Skills, (iv) Continuous Learning and Information Management, (v) Entrepreneurial Skills, (vi) Leadership Skills, (vii) Professional Ethics and Moral, (viii) Career Adaptability, and (viii) Digital technology. Thus, based on the findings obtained by Abdul Wafi et al. (23023), it can be affirmed that training for B40 using these 9 components functions as important components in empowering this marginalized group.

As TVET programs rely heavily on a hands-on approach, thus, the skills and knowledge transferred during the project implementation will yield a high return on investment (ROI) and able to make them independent and able to sustain. More importantly, the tacit knowledge that they have accumulated will make the program more sustainable and allow a steady flow of knowledge sharing (Puteh, 2018) among the participants. This is important as individuals with greater tacit knowledge are highly sought after in the job market (Puteh, 2018), and can also prevent skilled employees from migrating looking for better job opportunities. Mobility of talents abroad to tap into the opportunities lured by better salaries, working conditions and quality of life can hamper government aims to achieve high-income nations.

The vast potential of the TVET program to uplift knowledge and skills opens more opportunities for local employees to secure better employment opportunities as well as combatting poverty. These moves impliedly resulted in less dependency on foreign workers which heavily dominates most of the job market, especially in the 3D (dirty, dangerous, and difficult) sectors such as manufacturing, plantation, mining, quarrying, farming, etc. As argued that the fundamental aspects that drive the mobility of talents abroad as well as the influx of foreign workers is due to wages and incentives. Thus, the projects run by APPGM-SDG, which are supported by TVET pillars, will speed up the aspiration of being a developed nation in general and improve the well-being of Malaysians in particular. Table 5 below depicts the analysis of TVET based on the project conducted in Eastern Region Malaysia.

As depicted in Table 5 above, it was found that six (6) solutions projects (projects 2, 3, 6, 8, 9, 10) aimed at improving the beneficiary's economic and social well-being by focusing on two (2) TVET classification namely: (i) knowledge, and (ii) skills. It is also noted that two (2) solution projects merely focus on knowledge with no skills given to the beneficiaries. The solutions projects are project number 1 and 4. Analysis of TVET classification also discovered that two (2) solution projects were not focused on either knowledge or skills. This is because the beneficiaries were not given any knowledge or skills for their survival. The beneficiary for solution project number 5 was given a repaired house, meanwhile, for solution project number 7, the beneficiaries were given a kiosk to start and run their small business. Site visits, document analysis, and FGD findings further confirmed this impact evaluation towards TVET elements.

Table 5 - Summary of the projects, target SDG mandate, and TVET classification

No	Project Code	Project Name	Target SDGs Mandate	TVET Classification
1	Y21-SP013	<i>Rumah Burung Walet</i> (RBW) / Swallow House	1, 8	K
2	Y21-SP014	Financial Management and E-Marketing Program	1, 5, 8	K, S
3	Y21-SP018	Ironworks Mentor-Mentee Project	1, 8	K, S
4	Y21-SP038	Interpersonal-Organizational Interaction Course	17	K
5	Y21-SP039	Community "Gotong-Royong" Repair of Old House	1	-
6	Y21-SP045	Development of the Mushroom Industry in Sungai Rual	1	K, S
7	Y21-SP085	<i>Tapak Perniagaan Kiosk</i> / Kiosk Business Site	1, 8	-
8	Y21-SP086	<i>Agro Ternak Belia</i> Pasir Pekan / Youth Livestock Agro Pasir Pekan	1, 8	K, S
9	Y21-SP087	<i>Penghasilan Cocopeat / Serbuk Sabut</i> (Pulau Teluk Renjuna) / Cocopeat/Coir Powder Output (Pulau Teluk Renjuna)	1, 8	K, S
10	Y21-SP088	<i>Pemasaran Digital Usahawan Kecil</i> Parlimen Tumpat / Digital Marketing of Small Entrepreneurs Tumpat Parliament	1, 5	K, S

*Note: K = Knowledge, S = Skills

5.2 Challenges

There are several key challenges worth highlighting. These challenges are discussed from the perspectives of (i) evaluator(s), (ii) solution provider(s), and (iii) beneficiaries.

5.2.1 Challenges Faced by Evaluators

For projects that did not involve FGD sessions and site visit observation, the evaluation was conducted merely based on the available information provided in the main documents. Most of the information provided is similar in the proposal, monthly report, and final report, thus inferences were made based on the report, pictures, and available videos to link this project to the dimensions of impact evaluation. In some projects, there were no videos or photos available to further assist impact evaluation of this project. Hence, this report is merely based on the readily available data. Furthermore, in some projects, it was found that some information provided in the main documents was not consistent and contradicted each other. This creates confusion as to which documents should be referred to as correct or accurate information/documents.

Besides, there were a few challenges in selecting the participants for this impact evaluation. As the full list of participants and their details are unavailable, thus, the selection of participants was made as 'recommended' by the solution provider. For instance, in the SP014 project, we were informed that most of them conduct their businesses online, without physical stores. Hence, the selection of site visits is limited. Thus, the selection of informants may not provide the varied experience that the participants would have received from the project. We were surprised to learn that one of the informants was not from Pasir Mas when planning the SV, unlike what was initially proposed. Thus, the challenge was to rearrange the SV route to accommodate both Pasir Mas and Tumpat visits on the same day. In addition, both informants did mention that they have been partaking in various projects with the same solution provider, and there was another project that coincided with the end of the project / right after the project. Hence, the impact may not be solely due to the current APPGM-SDG project. The entrepreneurs also tend to get confused between this project and others and need to clarify every shared information to ensure that the data of the impact reflects the project's effectiveness as well as in line with the proposal and report. For example, one of them mentioned the overseas trip that they did at the end of the project but when probed, they claimed that perhaps this was from another budget/program by the same solution provider.

Another challenging project that we encountered was SP038. We found that there were some inconsistencies in the main documents, the reports were also relatively brief, and hence not much information was shared on both online as well as face-to-face sessions. Hence, this project was selected as one that will be 'visited' during our previous trip to Kelantan to further learn about the project. However, we were unable to visit the site as they claimed that the office was closed during the trip for observation. Both 'selected' representatives did not manage to attend the FGD session. One person was 'missing in action' while the other was not able to make it at the last minute (2 hours before the FGD session) due to flood relief efforts by Jabatan Kebajikan Masyarakat (JKM) known as the Social Welfare Department. Though we did arrange for a hybrid session, even the second representative did not join in online as planned. Nonetheless, we were able to get a third representative to join 10 minutes before the FGD session started.

Another interesting challenge faced by SP086 beneficiaries are lack of infrastructure that threatens the safety of livestock, a sharp and high increase in the price of cattle and lamb bran, and insufficient quality of food products (beef and lamb) to meet raw meat demand in the local market. Besides that, it was reported that they had difficulty processing the livestock food due to the chopper machine to processing the grass yet arrived, thus, they had to rely on 40% livestock bran as a substitution. This is very costly for them to absorb. The chopper machine also had to be shared among them as there is only 1 unit of chopper available to be used. In the final report, other challenges stated financial constraints have caused some participants to stop halfway, the price of mother breeds (*induk lembu*) was too high in the market causing participants to switch their focus from supplying beef to lamb due to the price of cows being too high.

What can be concluded from this is main challenges to impact evaluators range from apprehending inconsistent and incomplete project reports, communication for FGD and site visits, and team dynamics.

5.2.2 Challenges Faced by Solution Providers

In SP045 main documents, it was found that the solution provider had raised concerns about the difficulty of getting participants from male aboriginal youth to partake in this project because their attitude is difficult person to get along with outsiders as well as the attitude of the indigenous people who have a lazy attitude. It was also noted in the report that Indigenous youth is quite difficult to commit in terms of time. In addition, the project uses water from the hills. If the rains continue, it will have an impact on the project as the water source is clogged.

It was found that the main challenges to solutions providers across all ten (10) projects include mastery of SDGs, delay in funds disbursements, and preparation of progress reports.

5.2.3 Challenges Faced by Beneficiaries

It is noted that the challenges faced by the beneficiaries can be linked to the project implementation. There have been reports on issues regarding manpower resources - change of contractor due to slow progress and the COVID-19 infection of the contractor. Other challenges were rain and flood at the project site which slowed down the progress of the work substantially. The unavailability of raw materials then affected the supply to the project and the team had to extend the project period to source the materials from other sources. These delays then affect the beneficiaries in terms of additional time and energy invested for this project as well as delayed income generation due to the extended project period.

Besides, SP014 for instance, this project is an important one as it provides the basic skills to enable the participants to further expand their clientele and promote their products better. The basic approaches to marketing by using the current social media have been used by the participants after the program ended. As much as they are thankful for such exposure, it was found that their usage is rather limited due to the lack of time at hand for these entrepreneurs. Based on the conversation with the informants, they shared that with them running the business themselves (production and 'staff' management), they do not have much time left for content creation and promotional activities. It was reported during the visit that some platforms that they learned did not yield good sales in return i.e., TikTok and Lazada. Since the effort to create the video and other materials takes time without much monetary gain, the informant does not continue those platforms afterward. Another challenge for the participants is also to get acquainted with this new digital mindset and online approach, which was not a norm previously. Thus, they say that more training, support, and exposure can be helpful. In terms of financial planning, the informants shared that the basics given were useful; however, they are still reliant on the current practices that they have due to convenience and only improved on certain aspects of what was learned in this program.

In another project (SP018) for instance, it has been reported that more practice and learning of new techniques are needed to further enhance the ability of the beneficiaries to produce the highest quality products. In addition, the beneficiaries are also challenged to compete with existing products in the market, especially for such a niche target audience. It was also suggested that more high-tech machines and the expansion of physical workshop space will enable better and faster production for the beneficiaries.

For SP038, one of the main issues faced by the officers (beneficiaries) is the inability to participate in this project due to the clash with another ongoing program. It was also reported that among those who attended, some were distracted due to other tasks and programs. When asked by the FGD representative, she mentioned that the program ended almost one year ago and that she was not able to recall the issues well.

For SP085, some of the challenges highlighted by the beneficiaries based on FGD's feedback were a lack of knowledge and skills in doing business and there is no proper and formal training provided by the solution provider. They hope to have the opportunities to be guided formally especially in terms of stock or record keeping as well as financial records.

For SP087, the beneficiaries had highlighted that the constantly faulty condition of the machine caused a decrease in coco peat production. In addition, the high cost of maintaining the machine stunts the production of cocopeat. Furthermore, the project is still unable to meet customer demand due to limited production operations as well as participants are unable to work consistently due to the unsmooth operation of the machine.

Meanwhile, for SP088, it was found that participants are unable to give their full commitment through online training. It is also noted that the participants do not have suitable gadgets. Furthermore, it was also found that teaching using online methods is difficult for people sitting in rural areas as they have poor internet access and coverage.

What can be concluded regarding the main challenges from the beneficiaries' point of view are disrupted services related to intervals in funds disbursements and poor internet connections affecting the mood for training. COVID-19 proved to be a challenge too. Disruption of schedules occurred thus requiring beneficiaries to attend sessions online.

6. Policy Areas

After impact evaluation was carried out on all ten (10) projects, it was found that the solution projects that have been implemented are related to several key policy areas of the country. Impact evaluation analysis indicated that there are at least eight (8) related policy areas addressed by the solution projects. Further analysis indicates that about 9/10 of solution projects concentrated on youth, and 8/10 of solution projects related to gender and income generation respectively. Furthermore, 6/10 of the solution projects are related to poverty, while 3/10 of solution projects are aimed at social protection policy. About 2/10 of the solutions projects are directed at local governance and food security respectively and 1/10 of solution projects are related to settlement or housing policy. Table 6 below summarizes the solution projects and related policy areas.

Table 6 - Summary of solution projects and related policy areas

No	Project Code	Project Name	Policy Areas
1	Y21-SP013	<i>Rumah Burung Walet (RBW)</i> / Swallow House	Youth, gender, income generation
2	Y21-SP014	Financial Management and E-Marketing Program	Income generation, youth, gender
3	Y21-SP018	Ironworks Mentor-Mentee Project	Youth, poverty, income generation, social protection,
4	Y21-SP038	Interpersonal-Organizational Interaction Course	Local Governance, youth, gender
5	Y21-SP039	Community "Gotong-Royong" Repair of Old House	Local Governance, settlements
6	Y21-SP045	Development of the Mushroom Industry in Sungai Rual	Youth, Gender, poverty, income generation, food security, social protection
7	Y21-SP085	<i>Tapak Perniagaan Kiosk</i> / Kiosk Business Site	Youth, Gender, poverty, income generation, local governance, social protection
8	Y21-SP086	<i>Agro Ternak Belia</i> Pasir Pekan / Youth Livestock Agro Pasir Pekan	Youth, Gender, poverty, income generation, food security
9	Y21-SP087	<i>Penghasilan Cocopeat / Serbuk Sabut</i> (Pulau Teluk Renjuna) / Cocopeat/Coir Powder Output (Pulau Teluk Renjuna)	Youth, Gender, poverty, income generation
10	Y21-SP088	<i>Pemasaran Digital Usahawan Kecil</i> Parlimen Tumpat / Digital Marketing of Small Entrepreneurs Tumpat Parliament	Youth, Gender, poverty, income generation

Policy Areas: Youth: 9/10 (90%); Gender: 8/10 (80%); Income generation: 8/10 (80%); Poverty: 6/10 (60%); Social protection: 3/10 (30%); Local governance: 2/10 (20%); Food security: 2/10 (20%); Settlement / Housing: 1/10 (10%)

7. Recommendations

This paper highlights several recommendations for three (3) important factors that are involved directly in this SDG initiative. The actors are namely: (i) project funder, which refers to the government of Malaysia under the Ministry of Finance (MOF), (ii) Secretariat of SDG which refers to APPGM responsible for monitoring and overseeing the SDG projects throughout Malaysia, (iii) the Evaluator of impact assessment.

7.1 Recommendations on the Project Funding

Based on the ROI of the overall projects conducted in the Eastern Region, two (2) proposed projects are highly recommended to be continued in the second phase of project funding. The two (2) most promising projects are SP014 and SP088 which focus on Digital Marketing and Financial Management. This is because these projects have shown their full potential to help the beneficiaries to have sustainable income as well as the ability of the projects to provide and create job opportunities.

In addition, we also recommend that projects that have shown high impact, particularly on the knowledge, skills, and networking elements shall be given priority for the project funding for the next phase.

7.2 Recommendations by External Input to the Secretariat

The next recommendations are in terms of external input to the secretariat. There are several recommendations that we would like to put forward for the attention of the APPGM-SDG secretariat. Firstly, we recommend that the selection of the beneficiaries be made by the evaluator(s) to avoid any issue of bias and avoid sugar-coat statements by the beneficiaries.

Secondly, the evaluator(s) also recommends that the solution providers must provide a detailed list of the beneficiaries with their names, email addresses, and telephone numbers.

Thirdly, we also recommend that the solution provider should not be attending the FGD session. This is important to have deep and meaningful information from the beneficiaries without the interruptions or influence of the solution provider(s) during the FGD session.

Fourthly, we recommend that the reporting of the project needs to be improved. A standard reporting template shall be given to the solution provider together with the survey or verbatim feedback from the beneficiaries. This is to ensure that the impact evaluation can be done effectively and minimize repeated information in main documents (proposal, monthly report, and final report).

Lastly, we also recommend that the follow-up and follow-through must be done by the secretariat or by the appointed evaluator to make sure the projects are delivered smoothly, and timely and have sustained and prolonged effects on the beneficiaries.

7.3 Recommendations for Internal Impact Evaluation for Group Improvement

In terms of internal impact evaluation for group improvement, we recommend that for the bigger region with lots of projects, the coordination between the Lead Regional Evaluator (LRE) and the co-evaluators must be synchronized. This is important to avoid any miscommunication or wrong understanding, and commitment and cooperation issues can be handled efficiently before document analysis, FGD and site visit observation activities.

8. Conclusion

In conclusion, this paper has shed light on the key challenges faced in the impact evaluation of the Solution Providers Project in the Eastern Region of Malaysia. Through a mixed-method embedded design approach, the study assessed the effectiveness and outcomes of ten (10) solution projects aimed at promoting SDGs.

The findings revealed challenges from the perspectives of solution providers, project beneficiaries, and project evaluators, highlighting the need for clear communication and strengthened evaluation processes. The paper has provided recommendations to overcome these challenges, emphasizing the importance of a well-defined communication plan and collaboration among stakeholders. By addressing these challenges, informed decision-making, improved program design, and targeted policy development can be achieved, leading to positive economic, social, and environmental impacts aligned with the SDGs. This research contributes to the field of project impact evaluation and provides valuable insights for practitioners, policymakers, and organizations striving to create sustainable development and uplift communities in Malaysia and beyond.

This impact evaluation process is important for assessing the effectiveness of programs and interventions and evidence-based policymaking. Ultimately, the success of any program or intervention depends on the ability of the impact evaluator to accurately assess the impact of the solution projects and provide sound recommendations for future projects. A feedback mechanism is necessary to record positive and negative responses from impact evaluators, solutions providers, and beneficiaries. It is hoped that this paper will be able to provide insights for APPGM-SDG to better regulate the solution projects in the future as well as propose sound and feasible strategies and plans of action to the policymakers and decision-makers.

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