

Catalysing Change: Unveiling Tailored Strategies for Localising Sustainable Development Goals in Southeast Asia

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ABSTRACT

This article is a systematic literature review (SLR) analysing the literature concerning SDG localisation strategies in Southeast Asia adhering to the ROSES framework as its primary guiding principle. This study screened five hundred quantitative method articles from the SCOPUS and WoS databases from 2016 to 2022. Through rigorous inclusion criteria, ten quantitative journal articles were eligible for assessment. Thematic analysis of the selected articles revealed four predominant themes within the SDGs' localisation initiatives. These encompass policy measures, green initiatives, stakeholder partnerships, and mechanisms for public participation, showcasing how countries in the region are working to embed the SDGs into their specific local contexts. Given the scarcity of literature concerning SDG localisation in Southeast Asian countries, these findings offer substantial practical and knowledge-based contributions. Qualitative and mixed-method studies and systematic reviews on these two methods are recommended to contribute significantly to idealising and refining the SDGs' localisation process.

Keywords: localisation; policy studies; Southeast Asian; Sustainable Development Goals; systematic literature review.

INTRODUCTION

The 17 Sustainable Development Goals (SDGs) outlined in the 2030 Agenda for Sustainable Development, endorsed by global leaders in a landmark U.N. Summit in September 2015, officially took effect on January 1, 2016. The UNDP formulated these SDGs, consisting of 169 targets to be achieved at various levels – worldwide, nationally, and locally. They serve as a continuation of the Millennium Development Goals (MDGs) launched back in 2001. However, the SDGs place a greater emphasis on collaborative efforts from the grassroots level upwards. A vital aspect of the innovative SDGs lies in incorporating a “localisation” process, which involves considering subnational conditions in all aspects, from setting objectives and targets

to implementing measures and tracking progress. This localisation approach assists local and regional governments establish a solid foundation for local development strategies that work towards realising the SDGs from the very base.

Central to localisation is attaining local objectives through regional players, primarily local and regional governments (Jönsson & Bexell, 2021). However, the SDGs have expanded this perspective by emphasising the interconnectedness between the responsibilities of local and regional governments in achieving the SDGs. As a result, the role of these governments in supporting comprehensive, inclusive, and sustainable development has never been more crucial. With their proximity to local matters, local governments serve as policymakers and agents of change who can effectively bridge global aspirations with the needs of their communities. Localising the SDGs empowers all stakeholders to make sustainable development strategies more adaptable to local requirements and ambitions. For the SDGs to be effectively realised, local actors must fully engage in their implementation, agenda-setting, and progress tracking.

Localisation is a political strategy that leverages local resources, priorities, and perspectives to ensure that the SDGs align with local necessities, norms, and values (Ansell et al., 2022). The process of localisation is vital in making the SDGs a practical reality. These goals have direct relevance to the responsibilities of local and regional governments. By adapting these goals and targets to their contexts, local governments can help their constituents comprehend how their actions can contribute to the SDGs and how citizens are essential to achieving them. This approach promotes shared responsibility among diverse local stakeholders, fostering a sense of ownership and commitment. It also promotes solid national dedication, establishes a legal and institutional framework, and reinforces financial capabilities. This democratic obligation aims to enhance public involvement and participation within local communities by educating citizens about the SDGs and empowering them to engage in the process. Consequently, it is clear why local governments are entrusted with this role, as they are the closest administrative entities to the residents of a community.

Localising the SDGs aligns with the trend of decentralising the national agenda, encouraging more active engagement of local and municipal authorities. It requires communities to invest more in existing local policy tools and for local governments to raise awareness of the SDGs within their communities. This study aims to objectively assess the SDG localisation strategies in Southeast Asian countries since their inception in 2016.

LITERATURE REVIEW

Various assessments of the SDGs primarily focused on European countries (Krantz & Gustafsson, 2021; Lanshina et al., 2019; Lopes et al., 2020) and African nations (Kharas and McArthur, 2019; Annan-Aggrey et al., 2021). In contrast, there is a notable lack of comprehensive reviews concerning the Southeast Asian region. The existing evaluations of SDG localisation initiatives within this region are notably limited. Other evaluations have tended to narrow their focus to specific areas, such as the economy or recycling (Lopes et al., 2020), without considering the perspective of local governments in Southeast Asia, where the relevance of SDGs is most pronounced. Noteworthy studies within the Malaysian context include examinations of SDG localisation from a civil movement standpoint (Khoo & Tan, 2019) and SDG localisation at the community level and education (Mohd Yusof & Ariffin, 2020; Rahman et al., 2022; Tuan Ismail et al., 2022; Yusof et al., 2022; Zainal Abedin et al., 2022)

Trust is focal when considering the connection between sustainability and local government initiatives. An informative quantitative study by Ridzuan et al. (Ridzuan et al., 2021) has emphasised the significance of trust in local good governance. However, the existing literature lacks a more in-depth exploration of the interplay between sustainability (and SDGs) implementation at the local government level and the underlying element of trust. Addressing this gap through further qualitative investigation and longitudinal

studies would enrich our understanding of the current scenario.

Despite its significance, research on this topic has seemingly garnered limited attention since its inception in 2016. Given the multifaceted agendas and intricate nature of local practices, the practical implementation of these SDGs remains somewhat unclear (Fenton & Gustafsson, 2017). Implementing the SDGs is complex, often involving aligning the seventeen targets with national and subnational plans, strategies, and objectives (Valencia et al., 2019). At the regional and local levels, theoretical concepts have taken precedence over tangible practice (Barnett & Parnell, 2016).

Fenton and Gustafsson (2017) argue that there is a notable knowledge gap when it comes to an understanding of the integration of SDG implementation into existing plans, policies, and practices of municipalities. Limited resources and insufficient scrutiny of study quality have often led to inconsistent reviews that reviewer biases may influence. This systematic literature review (SLR) aims to rectify this by employing a meticulous search methodology that ensures an unbiased and transparent report encompassing a broad spectrum of resources. By selecting reputable and methodologically rigorous databases, the resources under scrutiny were chosen through a comprehensive and reproducible search process. The review methodology will be exhaustively detailed, enabling other researchers to replicate the investigation and verify the findings for study validity.

RESEARCH DESIGN AND METHODS

The primary objective of the outlined research design is to uncover the central theme and associated subthemes concerning SDG localisation strategies within Southeast Asian countries. The approach involves conducting a systematic review of the existing literature, employing the well-recognised ROSES review protocol (Gusenbauer & Haddaway, 2020; Haddaway et al., 2018). This systematic review protocol ensures rigour and consistency throughout the research process, enhancing the reliability and validity of our findings.

This review focuses on articles extracted from SCOPUS and Web of Science, which are renowned for hosting various scholarly articles encompassing diverse perspectives and research methodologies. By adopting the ROSES review protocol, our research design ensures a structured and meticulous approach to comprehensively understand the landscape of SDG localisation strategies in Southeast Asia. This methodology entails a step-by-step process that includes formulating well-defined research questions, setting specific inclusion and exclusion criteria, and systematically searching the databases to identify relevant articles. The rigour of this methodology reduces the likelihood of omitting critical information and minimises potential biases, thereby enhancing the credibility of our findings.

Through this systematic review, we aim to illuminate the prevailing trends, challenges, successes, and gaps within the context of SDG localisation strategies across Southeast Asian countries. The combination of the robust ROSES protocol and the comprehensive databases will allow us to identify patterns, variations, and emerging insights that contribute to a more profound understanding of this critical subject matter. Ultimately, our research design intends to provide valuable insights that can inform policymakers, researchers, and practitioners in effectively implementing and enhancing SDG localisation strategies in the region.

The Review Protocol- ROSES

The RepORting Standards for Systematic Evidence Syntheses (ROSES) are well-suited for pinpointing relevant material on a specific topic and ensuring that pertinent details are derived from accurate data sources. The initial step of this approach involves formulating a research question, followed by the systematic execution of a paper search strategy for the articles under examination. This process involves breaking down into three sub-stages: identifying the relevant articles, implementing a screening procedure

to establish inclusion and exclusion criteria, and evaluating the eligibility of the resources. The chosen articles' quality was then assessed to confirm their accuracy and reliability.

Table 1. The search terms and the total number of publications from each database.

DATABASE	SEARCHING STRINGS AND SEARCHING TERMS	NO OF DOCUMENT
SCOPUS	TITLE-ABS-KEY ((“engag*” OR “particip*” OR “invol*” OR “coopera*” OR “locali*”) AND (“sustainable development goal” OR “sds” OR “sdg”) AND (“Southeast Asia” OR “Malaysia” OR “Thailand” OR “Indonesia” OR “Singapore” OR “Vietnam” OR “Laos” OR “Cambodia” OR “Kampuchea” OR “Myanmar” OR “Burma” OR “Timor Leste” OR “Philippines” OR “Brunei”))	391
Web of Science	TS= ((“engag*” OR “particip*” OR “invol*” OR “coopera*” OR “locali*”) AND (“sustainable development goal” OR “sds” OR “sdg”) AND (“Southeast Asia” OR “Malaysia” OR “Thailand” OR “Indonesia” OR “Singapore” OR “Vietnam” OR “Laos” OR “Cambodia” OR “Kampuchea” OR “Myanmar” OR “Burma” OR “Timor Leste” OR “Philippines” OR “Brunei”))	109
Date of Acquisition: DECEMBER 8, 2022		500

Before delving into the selected articles' data abstraction analysis, the ROSES methodology stipulates a discussion of the method used for selecting the articles. This involves a validation process applied to the extracted data, ensuring its accuracy and appropriateness for the research at hand. This meticulous approach guarantees that the findings are well-founded and can be confidently applied to illuminate the chosen subject matter.

Formulation of Research Question.

The study topic is crafted using the PICo framework. While formulating the research question, the Population or problem, Interest, and Context—collectively called PICo—are all meticulously explored and substantiated. Hence, this research focuses on delving into the localisation of SDGs along with community involvement (Interest) of Local Governments and municipalities (Population) in the Southeast Asia Region (Context). Drawing from these three distinct aspects, as advised by the PICo framework, a research question has been devised: What strategies are employed by national governments to tailor the implementation of SDGs for Southeast Asian communities?

Identification.

The process known as identification involves pinpointing synonyms, related concepts, and different versions of the study's central keywords—namely, community, participation, involvement, and localisation. This step offers the selected database a more comprehensive array of choices for uncovering articles related to the review. In facilitating this identification process, an online thesaurus was consulted, along with keywords sourced from prior studies, suggestions from Scopus, and recommendations from experts, in alignment with the approach recommended by Okoli (Okoli, 2015). This amalgamation of strategies ensures a comprehensive and robust collection of relevant terms to enhance the efficiency of the subsequent search.

As indicated in Table 1, the authors improved the present keywords. They built a comprehensive search string (based on Boolean operators, phrase searching, truncation, wild card, and field code functions)

utilising the two significant databases SCOPUS and Web of Science. Due to their numerous benefits, these two databases are the best options for conducting a systematic literature review. These databases offer sophisticated searching capabilities, are vast (indexing over 5000 articles), regulate article quality, and are multidisciplinary (Gusenbauer and Haddaway, 2019). Combinations of keywords in both British and North American English spelling such as ‘community engagement’, ‘community participation’, ‘community involvement’, ‘community cooperation’, ‘localisation’, ‘sustainable development goal’ or its acronyms ‘sdgs’ and ‘sdg’, ‘South East Asia’ and all countries in the region, including ‘Malaysia’, ‘Thailand’, ‘Indonesia’, ‘Singapore’, ‘Vietnam’, ‘Laos’ were used as in the database screening. As a result, the initial screening considers 391 articles from Scopus and 109 articles from the Web of Science database.

Screening and Eligibility.

The initial step of this study involved screening all 500 pre-selected articles. It was done by applying article selection criteria leveraging the database’s sorting capabilities for an automated process. As Kitchenham and Charters (Kitchenham & Charters, 2007) advocated, the research question was a vital criterion for this selection. Okoli (2015) also recommended that researchers establish a time frame for their assessment, as scrutinising all recently published studies is often impractical. Following the advice of Higgins and Green (Higgins & Green, 2011), constraints on publication timing should only be imposed when it is reasonable to assume that pertinent studies were exclusively published during a specific period. Considering the outcomes of the database search, it became evident that studies relating to SDG localisation and community participation emerged predominantly after the commencement of the SDGs in 2016. Based on this insight, the timeframe spanning 2016 to 2022 was adopted as one of the inclusion criteria.

In order to ensure the quality of the review, the focus was narrowed to publications containing empirical data, particularly quantitative research published in journals. Articles that prioritised review content over actual data or presented ambiguities in their methods section were excluded. Furthermore, to maintain clarity and consistency, only articles in English were considered for evaluation. The scope of the study was confined to published papers and discussions regarding the SDGs program in Southeast Asian countries. This systematic approach led to the elimination of 145 articles that failed to meet the established inclusion criteria and one duplicate article. As indicated in Figure 1, the remaining 354 articles were deemed eligible for the subsequent phase.

To ensure precision and adherence to eligibility criteria, the authors personally reviewed article titles and abstracts for all retained articles after the initial screening process. This meticulous approach helped filter out 338 articles that focused on unrelated topics such as agriculture and fisheries, women’s issues, ecosystems, medical matters, poverty, corporate social responsibility, education, and other themes unrelated to localisation strategy. After completing the eligibility criteria, 16 articles were chosen to undergo quality appraisal in the subsequent subsection to determine the final selection for analysis.

Quality Appraisal.

The selected articles were presented to two experts in order to assess the quality of the articles’ content. Petticrew and Roberts (Petticrew & Roberts, 2006) recommended that experts categorise the remaining papers into three categories: high, moderate, and low. Only high- and moderate-quality articles should be reviewed, while low-quality articles are excluded. To calculate the quality ranking, the experts concentrated on the methodology of the publications. Both reviewers must agree that the articles’ quality must be at least moderate for inclusion in the review. Before selecting whether to include or exclude articles from the review, they discussed any disagreements. This method scored six articles as high and four as moderate for review eligibility. Data abstraction aligned with the research questions, signifying that any pertinent data from the studies capable of addressing the research questions were distilled and recorded in a table.

Process	Description	N
Identification	Records retrieved using databases (Scopus (N=391) and Web of Science (N=109))	500
Screening	Records excluded due to published before 2016, published in the form of article reviews, chapters in books, book series, books, conference proceedings, Editorial, discussion papers and case studies, published in non-English, studies conducted in non-Southeast Asian Countries	-145
	Total records screened.	355
	Duplicate records removed.	1
Eligibility	Full-text articles assessed for eligibility (Title and abstract screen)	354
	Full-text articles excluded due to Non-SDGs, Non-quantitative, Not related (i.e., heavy agriculture and fisheries, gender, ecosystem, medicine, poverty, CSR, education and non-related topic rather than localisation strategy)	-338
Quality	Articles ready for quality appraisal	16
	The expert reviewers categorised six articles as high-quality, four as moderate quality and six (-6) as low quality.	
Abstraction	Data abstraction and analysis (Articles included and ready for quality synthesis)	10

Fig. 1 The Identification, Screening, Eligibility and Quality Appraisal Process

ANALYSIS

A thematic analysis was performed to achieve the goal of this research, which entailed identifying overarching themes and sub-themes within the abstracted data. It involved tasks such as recognising patterns and themes, clustering related elements, tallying occurrences, noting commonalities, and establishing connections, as outlined by Braun and Clarke (Braun & Clarke, 2006). The next phase involved the authors categorising the themes for each group and sub-group. Thematic analyses were instrumental in shaping these themes during the initial phase. The naming and arrangement of sub-themes were fundamental in structuring the core theme, exemplified in Fig 1. Any discrepancies, reflections, challenges, or insights that arose during the data interpretation process while developing the themes were thoroughly examined until a consensus was reached on the suggested themes and sub-themes.

A panel of experts well-versed in quantitative research methods and SDGs were presented with the generated themes and sub-topics. These professionals boast expertise in quantitative and qualitative research methods and the study of SDGs. The panel of evaluators expressed contentment with the principal themes and sub-themes devised within this study. Throughout this procedure, the uncovered patterns in the abstracted data that emerged from the abstraction from all reviewed publications were systematically grouped, culminating in the identification of four principal themes. Subsequently, the authors re-evaluated these four data clusters, revealing 18 sub-groups.

The authors meticulously re-evaluated all the primary and sub-themes developed for quality assurance, ensuring their relevance and accurate data representation. This subsequent step involved a meticulous review to verify the validity of these themes, ensuring that they effectively encapsulated the data extracted from the reviewed materials.

RESULT AND DISCUSSION

After thoroughly analysing the articles, four main themes emerged, each accompanied by its relevant sub-themes. These overarching themes encompass policy measures, green initiatives, stakeholder partnerships, and mechanisms for public participation, as presented in Table 2. In contrast, Table 3 visually represents the interconnectedness between each sub-theme and its corresponding elements.

Table 2. The SDGs Localisation Subthemes in Southeast Asia

THEMES	SUBTHEMES
Policy Measures	LGS- Legislation
	<ul style="list-style-type: none"> · REED+-Reducing Emissions from Deforestation and Forest Degradation.
	GGN-Good Governance
	<ul style="list-style-type: none"> · Transparency (reporting, open government)
	<ul style="list-style-type: none"> · Policy advice.
	<ul style="list-style-type: none"> · Cooperative Governance
	PPS-Public Policy and Strategies
	<ul style="list-style-type: none"> · Land Policy
	<ul style="list-style-type: none"> · Infrastructure
	<ul style="list-style-type: none"> · Operating Green Policy:
<ol style="list-style-type: none"> 1. Waste minimisation (solid waste management, sewage management, wastewater management, environmental quality monitoring, focus on air quality) 	
<ol style="list-style-type: none"> 2. Green City Garden city 	
<ol style="list-style-type: none"> 3. Energy efficiency a) on transport and b) on renewable energy 	
<ol style="list-style-type: none"> 4. Sustainable tourism 	
<ol style="list-style-type: none"> 5. Carbon Footprint (Front Yard Project, Garbage Bank Project, Green Road Project, Green Office Project, Global Warming Problem Solving Project) 	
FIN-Finance	
<ul style="list-style-type: none"> · Green Finance 	
<ul style="list-style-type: none"> · Financial resources 	
<ul style="list-style-type: none"> · Funding 	

<p>Green Initiative</p>	<p>GPC-Green procurement and consumption</p> <ul style="list-style-type: none"> · Sustainable Consumption · Eco Purchasing Behaviour · Minimal Damaging Product (MDP) · More Expensive Product · Environmentally friendly brand <p>5RS – 5R Strategies</p> <ul style="list-style-type: none"> · FWS-Food waste separation and reduction · Recyclable packaged product <p>CBP -Community-Based Project</p> <ul style="list-style-type: none"> · CWS-Community Water Supply · ST-Sustainable Tourism · SCD-Sustainable Coast Development · Environmental initiative <p>STT – Sustainable Technology</p> <ul style="list-style-type: none"> · EFT – Environmentally Friendly Technology · ICT – Information Communication Technology · Innovation
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Stakeholders Partnership	PUB- Public Partnership
	PRI-Private partnership
	INP-International Partnership
	· Public Partnership
	· Local Community
	· Multistakeholder Partnership
	· Multilevel Governments
	· NGOs
	EDU – Education
	· Academician
	· University
	· School
	· Awareness
	· Knowledge transfer & sharing
	· Training
· R&D	
· Well-informed green consumer	

Public Participation Mechanism	CoP-Cooperation (cooperation from the community)
	· Citizen Participation
	· Trust (I.e., Community Character)
	· Family Factor
	CA-Change Agent
	· Change Agent
	· social media
	SE-Social Enterprise
	EMP-Empowerment
	· Decision-Making Process
SS-Support System	
CUL-Culture	

Policy measure

The first theme that caught the authors’ attention is policy measures. Policies and measures are put in place by governments and relevant agencies to encourage sustainable behaviour and practices that foster a sustainable community. These policies are divided into subthemes: legislation, good governance, public policy strategies, and finance.

Legislation (LGS).

Localising the SDGs involves enacting legislation that operates across various levels of government. For instance, regulatory bodies must address issues like food waste to achieve SDG11 for sustainable cities and communities and SDG12 for responsible consumption and production. As a result, addressing food waste has become a priority for Thailand, leading to the implementation of regulations to reduce food waste in cities across the country (Bunditsakulchai & Liu, 2021). Furthermore, Bangkok is utilising climate change as a social strategy to encourage the city’s transformation into a low-carbon metropolis. One approach involves increasing citizens’ awareness of climate change by highlighting the link between natural disasters, extreme weather risks, and the changes experienced locally. Additionally, efforts are being made to educate individuals on adapting and mitigating the potential impacts of climate change (Leknoi et al., 2022).

The future success of community engagement hinges on political efforts that foster trust, loyalty, and solidarity among the people. This strategy also aids the Bangkok Metropolitan Administration (BMA) guide the city’s residents to consider their role in transitioning Bangkok into a low-carbon urban centre (Leknoi et al., 2022). As part of this effort, the Thai government started programmes in 2022 to promote non-combustion vehicles and make Bangkok residents more aware of climate change.

Meanwhile, Laos implements social safeguards that reduce greenhouse gas (GHG) emissions from deforestation and forest degradation (REDD+). The process requires a delicate balance between maintaining

a significant carbon store and meeting the livelihood needs of rural residents who rely on forest ecosystems. The efforts to slow down deforestation in the Houaykhing village cluster through REDD+ initiatives may have positively impacted the region’s GHG emissions by preserving forest cover (Hiratsuka et al., 2021).

Good Governance (GGN).

In localising the SDGs, good governance is crucial in advancing both SDG16 and SDG17. This principle applies to both public and private structures, and the reviewed article has highlighted various pertinent variables and factors related to good governance, particularly in addressing sustainability concerns. For instance, Sukma and Leelasantitham (Sukma & Leelasantitham, 2022) propose incorporating agency openness, transparency, and good governance to establish a community sustainability ecosystem model that bolsters local business sustainability. Good governance impacts every organisation’s products, services, and reputation. In the context illustrated by Sukma and Leelasantitham (2022), good governance contributes to the long-term sustainability of a community water supply company.

Binh and Gia (Binh & Giai, 2021) underscore the need for reforms to establish an open government model that encourages citizen participation in governmental governance to support SDG initiatives. Research conducted in Vietnam emphasises the transition to good governance through an open government approach, necessitating elements like transparency, policy advice, citizen engagement, cooperative governance, social self-governance, and social autonomy to ensure the success of SDG activities.

Similarly, Indonesia is taking steps to provide financial resources to village communities through initiatives like the Village Fund. This allocation of funds is paramount to promote a healthy environment and livelihood opportunities, aligning with SDGs’ goals of reducing poverty rates and fostering various income-generating activities for the betterment of all communities (Ronaldo & Suryanto, 2022). Likewise, the initiative to curb Laos’s deforestation and forest

No	Author	Source	Year	Country	THEMES																		
					Policy Measures				Green Initiative				Stakeholders Partnership				Public Participation Mechanism						
SUBTHEMES					LG	GGN	FIN	PPS	GPC	5RS	CBP	STT	PRI	INP	NIP	EDU	CoP	CA	SE	EMP	SS	CUL	
1	Hiratsuka et al.	WOS	2019	IND	/	/		/					/									/	
2	Bunditsakulchai and Liu	SCO	2021	THA	/			/	/	/			/		/	/	/				/	/	
3	He and Mai	SCO	2021	VIE			/	/			/	/	/		/	/	/		/	/	/	/	
4	Kongboon et al.	SCO	2021	THA				/	/														
5	Rajadurai et al.	SCO	2021	MAL				/	/						/								
6	Binh and Gia	SCO	2021	VIE		/										/							
7	Leknoi, et al	SCO	2022	THA	/							/			/	/				/			
8	Ronaldo and Suryanto	SCO	2022	IND		/	/																
9	Sukma and Leelasantitham	SCO	2022	THA		/					/	/	/	/	/	/	/	/	/				
10	Tosida et al.	SCO	2022	IND			/	/	/		/	/	/	/	/	/	/	/	/	/	/		
Number of mentions					3	4	3	5	4	2	4	3	4	1	5	5	7	1	3	4	3	3	

SUBTHEMES			PUB- Public Partnership	
IND- Indonesia	LGS- Legislation	GPC-Green procurement and consumption	PRI-Private partnership	CoP-Cooperation (cooperation from the community)
THA – Thailand	GGN-Good Governance	5RS – 5R Strategies	INP-International Partnership	CA-Change Agent SE-Social Enterprise EMP-Empowerment SS-Support System CUL-Culture
VIE – Vietnam	PPS-Public Policy and Strategies	CBP -Community-Based Project	NIP-National Partnership	
MAL - Malaysia	FIN-Finance	STT – Sustainable Technology	EDU – Education	
WoS – Web of Science SCO - Scopus				

Table 3. The SDGs Localisation Themes in Southeast Asia.

degradation (REDD+) emissions can enhance socioeconomic well-being and community welfare. This initiative aligns with the SDGs’ aim to elevate human welfare, encompassing poverty reduction, improved food security, and sustainable forest management (Hiratsuka et al. 2021).

Public Policy and Strategies (PPS).

In SDG localisation, public policy strategies (PPS) are crucial. These strategies encompass land policy, Infrastructure/Development Policy, and Green Policy. In Laos, dedicated efforts are underway to promote sustainable forest and agricultural management within a designated REDD+ rural region to achieve the Sustainable Development Goals (SDGs) and enhance the local community’s livelihoods. Coordination of such efforts across the forestry and agricultural sectors is critical for promoting and improving sustainable forest and farmland management. (Hiratsuka et al. 2021).

According to Koonboon (Kongboon et al., 2021), public policy and strategy for creating a platform for self-assessment of an environmental performance index in three prefectures in Thailand, which primarily operate on green policies, were crucial in Nothanburi, Hatyai, and Yasathon. In Nothanburi, the green operating policies focus on waste minimisation, including the management of solid waste, sewage, wastewater, and air quality monitoring. Similarly, the same policy was implemented in Hatyai, with an additional initiative to promote a Green City, Energy Efficiency, an effective transportation system, renewable energy, and sustainable tourism. On the other hand, the green policies in Yasathon concentrate on developing a strategy and approach for carbon footprint projects, including small-scale community activities such as front yards, garbage banks, green roads, green offices, and global warming problem-solving projects.

For sustainable development, a robust infrastructure and development policy is essential. In Vietnam, for instance, the sustenance of the ecotourism sector hinges on improved facilities and infrastructure, such as enhanced transportation services, which showcase the uniqueness of tourist products and services (He & Mai, 2021). Similarly, Indonesia’s smart village programs necessitate better infrastructure, including educational facilities, electricity, clean water, and roads, to fortify their implementation (Tosida et al., 2022). A parallel scenario unfolds in Thailand, where inadequate support for recycling activities in the Bangkok community necessitates more convenient facilities to bolster participation and mitigate time constraints (Bunditsakulchai & Liu, 2021).

In addressing the pressing issue of food waste in Thailand, a “green policy” approach concentrating on waste minimisation strategies was imposed. Bunditsakulchai and Liu (2021) highlight the challenge of food waste generation in Bangkok, which has escalated from a local concern to a national agenda and propose

various food waste reduction strategies at organisational, community, household, and individual levels. Regulations and policies on food waste separation and reduction at the source have been established to tackle this problem. As an integral national agenda, incorporating food waste reduction strategies into standard guidelines for responsible organisations holds promise for achieving cost-effective waste reduction goals and environmental sustainability (Bunditsakulchai and Liu 2021).

The pursuit of SDG11's aim for sustainable cities and community centres on the concept of a "green city." Various models of sustainable communities exist, contributing to establishing a sustainable local environment. Tosida et al. (2022) delve into the implementation of Smart Villages in Indonesia, underscoring the potential support through short-term, medium-term, and long-term strategic plans that foster SDG multistakeholder collaboration in policy design. Similarly, the Green City project in Hatyai, Thailand, provides households with economic guidelines and establishes an environmental division within the prefecture to advance sustainable consumption and tourism (Kongboon et al., 2021).

Imbalanced development among rural, urban, and regional areas hinders a "whole of nation" approach to SDG progression. A study by He and Mai (2021) in Vietnam draws attention to the significance of prioritising the development of Vietnam's coastal area, particularly in ecotourism activities, to facilitate national progress aligned with SDGs. The authors introduce a "coastal sustainable development structure model" that integrates the sharing economy and ecotourism, offering a solution for sustainable coastal development by considering residents' expectations and mitigating adverse effects on natural resources (He & Mai, 2021). The same research also underscores the need to curtail the misuse of unused living spaces while promoting sustainable tourism. Furthermore, the strategic development orientation "Development of the Mekong Delta in the period of 2021–2030 with a vision to 2050" identifies numerous potential developmental advantages for the Mekong Delta, aligning with tourism development strategies that uphold cultural preservation (He & Mai, 2021).

In Phonxay, a Luang Prabhang, Loas district, a five-year socioeconomic development plan was enacted in 2016 to reduce poverty and enhance rural communities' livelihoods through innovative livelihood methods. However, introducing enhanced grazing grasses as part of the Joint Crediting Mechanism (JCM)- emissions from deforestation and forest degradation (REDD+) efforts aimed at intensive rearing in limited grazing areas requires further evaluation to gauge effectiveness. The potential trade-off between embracing livestock farming for improved livelihoods and implementing carbon mitigation measures underscores the complexities inherent in such undertakings (Hiratsuka et al. 2021).

Finance (FIN).

SDG localisation necessitates substantial funding and financial backing. Consider Vietnam, where the Mekong Delta's ecotourism efforts necessitate increased investment, and the realisation of financing for sustainable tourism operations is critical. (He and Mai, 2021). However, the community must diversify its funding sources beyond government-backed sustainable development financing. The community must generate its own funds. For instance, consider the Smart Village initiative in Indonesia, where the community excels at crowdsourcing to finance its innovative economic initiatives (Tosida et al. 2022).

Simultaneously, the Indonesian government encourages Village Funds to engage in green finance initiatives. This approach holds dual advantages that foster both environmental and economic sustainability. The government may boost local income-generating activities by prioritising green financing activities while improving environmental performance by reducing pollutants. The expansion of businesses has led to escalated pollution levels, which detrimentally affect the environment's well-being. Ronaldo and Suryanto's (2022) report recommends that the government embrace green financing to champion environmental sustainability.

Green Initiative

A vulnerable and unhealthy Earth will undoubtedly impact human well-being. Many eco-friendly initiatives have been implemented at the institutional and community levels to ensure a safe and healthy earth for human settlement (Bunditsakulchai & Liu, 2021; Kongboon et al., 2021). In doing so, it indirectly restores ecological equilibrium and safeguards the environment for the appreciation of future generations. Committing to implementing these green measures strengthens the environmental movement, which might be accomplished through well-structured, policy-driven initiatives that drive comprehensive change within communities.

The effectiveness of such green initiatives hinges on their clear-cut objectives, goals, and measurable outcomes. Moreover, the adoption of these eco-friendly strategies aids organisers in attaining a range of environmental targets and indicators that align with the Sustainable Development Goals (SDGs) pertinent to the environment. In this review paper, several notable green initiatives have been identified, including Green Procurement and Consumption (GPC), 5R Strategies (5RS), Community-Based Projects (CBP), and Sustainable Technology (STT) supporting the green initiatives as important subthemes for SDG localisation (Bunditsakulchai & Liu, 2021).

Green procurement and consumption (GPC).

The model introduced by Bunditsakulchai and Liu (2021) concerning household food waste generation and reduction strategies offers initial insights into curtailing such waste. Within the framework of Green Procurement and Consumption (GPC), the authors outline a series of steps and planning required to minimise household food waste: Pre-shopping planning, acquiring necessary food items, proper food preservation, adequate meal preparation, and fostering alterations in eating habits. Moreover, adopting an integrated approach to household food waste reduction encourages households to segregate their general waste, prevent waste generation, and boosts the inclination to reuse/recycle food waste (Bunditsakulchai and Liu 2021).

In a separate study, Rajadurai (Rajadurai et al., 2021) employed the nexus eco-purchasing behaviour index (NEPBI) to assert that consumer readiness to embrace green consumption is essential for establishing environmentally sustainable consumption patterns. The research confirmed that eco-purchasing behaviour, environmentally compatible products, products with recyclable packaging, minimally harmful products, relatively higher-priced products (often associated with solid support for SDGs), environmentally friendly brands (EFB), and well-informed green consumers (WGC) play substantial roles in promoting sustainable consumption and production in Malaysia. Conversely, the influence of eco-labelled products was found to be insignificant.

5R Strategies (5RS).

In the conceptual model of integrated household food waste reduction proposed by Bunditsakulchai and Liu (2021), two essential practices align with the themes of the 5R strategy: a) processing leftover food and b) recycling food waste. The research underscores that when a community actively engages in reusing or recycling their general household waste, it significantly enhances the likelihood of effectively segregating their food waste (Bunditsakulchai and Liu 2021). By implementing these practices, households contribute to a comprehensive approach that curbs food waste and promotes responsible waste management. The act of processing leftover food not only reduces unnecessary waste but also showcases a commitment to resource efficiency. Instead of discarding edible remnants, households can transform them into new meals, which aligns perfectly with the principle of reducing waste at the source. Similarly, recycling food waste diverts it

from landfills and creates valuable compost to enrich the soil and promote sustainable gardening practices.

Furthermore, the interconnection between general household waste management and food waste separation cannot be underestimated. When households develop a habit of properly sorting their waste, it becomes more intuitive to extend this practice to food waste. The study's findings highlight the importance of a holistic waste management approach that considers various waste streams and encourages communities to adopt eco-friendly behaviours. Integrating leftover processing and food waste recycling into the 5R strategy benefits the environment by reducing waste. It nurtures a culture of mindful consumption and responsible resource utilisation within households.

Community-Based Project (CBP).

Initiating SDG localisation at the community level is the utmost in driving sustainable development. At the heart of this effort are community-based projects (CBPs), which can be initiated and carried out by community members. A notable example of this approach can be seen in the management of food waste, where the community's active involvement can play a transformative role. By adopting a comprehensive waste management strategy that encompasses the entirety of the waste stream, the issue of household food waste generation can be effectively addressed (Bunditsakulchai and Liu 2021).

However, it is essential to recognise that the commitment and feasibility of specific CBPs may vary between different settings, particularly between rural and urban areas. Take Indonesia, for instance, where the readiness of village residents to embrace a smart economy-smart village initiative exhibits variations across sub-districts. This diversity in readiness underscores the need for nuanced approaches that consider the unique context of each community. While CBPs can catalyse sustainable development, their implementation may encounter constraints that require tailored solutions.

The distinction between rural and urban dynamics is a prime example of such contextual variations. While community-driven projects hold immense potential, their success hinges on available resources, infrastructure, and local priorities. In the case of Indonesia, the focus on a single village for a smart economy-smart village initiative might inadvertently limit the broader sustainability impact at the sub-district level, underlining the necessity for comprehensive strategies encompassing larger geographical units (Tosida et al. 2022).

In essence, SDG localisation through community-based projects represents a grassroots approach that engages the collective agency of communities. By fostering local ownership and participation, these projects can serve as powerful vehicles for translating global sustainability goals into actionable change. However, as seen in the varying degrees of commitment and readiness, a nuanced understanding of the local context is critical to ensuring such initiatives' effectiveness and long-term impact.

Sustainable Technology (STT).

At the organisational level, the significance of digital services in enhancing operational efficiency and public service delivery has been underscored by Sukma and Leelasantitham (2022). The objective is to optimise efficiency while enhancing customer satisfaction. Introducing e-services, a novel facet of digital administration, involves leveraging computer technology and communication networks to elevate operational efficiency and service quality. The overarching aim of e-services is to provide online solutions and transition businesses toward a customer-centric approach. By simplifying access to services and making them more user-friendly, organisations can harness information technology to manage their operations effectively. In an evolving landscape where emerging technologies are reshaping work dynamics, e-services are positioned as a potential pathway among various options. Furthermore, the insights from this report can

serve as a practical guide for company proprietors, offering a rapid and error-minimising framework for new business scenarios (Sukma and Leelasantitham 2022).

Turning attention to rural and village settings, Indonesia's commitment to rural development and narrowing the digital divide is a crucial catalyst for SDG advancement. A prime manifestation of this dedication is the concept of the digital village integrated into the smart village ecosystem. This innovative model aims to alleviate rural poverty and provide communities with essential digital infrastructure (Tosida et al., 2022). The inception of various pilot smart village projects in Indonesia since 2018 attests to the nation's proactive stance. Citizen digital engagement is critical to the success of the smart village initiative, emphasising the importance of community collaboration. The strategic deployment of Information and Communication Technology (ICT) addresses the digital divide and fosters community empowerment through enhanced collaboration and connectivity (Tosida et al., 2022).

In the context of innovation, its transformative influence on rural communities is unmistakable. Notably, in the Kaban-Dungan District, the advent of the Internet, championed by the Kabandungan Youth Community (KOMPAK), has propelled innovation and connectivity. The ripple effects are evident in heightened Internet coverage across the Kabandungan district. Maximising community engagement requires bolstering ICT literacy, enabling strong citizens to access resources like agricultural portals, benefiting the agricultural community. Vietnam echoes the power of innovation with its exploration of the Airbnb model infused with ecotourism, a potential avenue to uplift the livelihoods of coastal residents (He & Mai, 2021). Innovation emerges as a potent tool for fostering social sustainability within communities.

Shifting the focus to Thailand, environmentally friendly infrastructure construction has assumed prominence in Bangkok. Adopting eco-friendly practices, such as recycling waste and employing materials with minimal carbon emissions, underscores the commitment to ecological preservation. The Thai government's recent initiative to promote non-combustion vehicles, launched in 2022, holds promise in raising climate change awareness among Bangkok's populace (Leknoi et al. 2022). The initiative parallels global efforts wherein similar technologies and strategies are harnessed to curtail carbon emissions and counteract the impacts of climate change (Leknoi et al., 2022). While these long-term policies are aligned with reducing Carbon Dioxide (CO₂) emissions through novel technologies, renewable energy sources, and reduced reliance on fossil fuels, their successful implementation necessitates societal consensus and endorsement (Leknoi et al. 2022).

Stakeholder partnership

Effective collaboration among diverse actors and sectors is imperative, necessitating the amalgamation of their financial resources, expertise, and proficiencies. Thus, the third theme – Partnerships for sustainable development, emerges as strong multistakeholder efforts that serve as critical conduits for realising and achieving development mandates and objectives defined within international realms (Tosida et al., 2022). These partnerships, underscored by their multistakeholder nature, inherently foster the attainment of developmental commitments and aspirations. Their essence is voluntary initiation, driven by governments, intergovernmental organisations, prominent societal groups, and various stakeholders. These dynamic partnerships embody the spirit of collective engagement, pooling resources, knowledge, and skills to pave a collaborative path toward impactful and sustainable developmental achievements (Tosida et al., 2022 & Sukma and Leelasantitham, 2022). The myriad actors in stakeholder partnership are delineated in the following discussion.

Private Partnership (PRI).

The private sector partnership is imperative in localising the Sustainable Development Goals (SDGs). Its responsibilities include achieving economic objectives, upholding environmental preservation, and realising

societal values (He & Mai, 2021). Pursuing these diverse aims and values is realised through collaborative efforts and partnerships, as underscored by the principles of SDG17.

Across various nations, the involvement of the private sector in partnerships holds supreme importance in crafting strategic blueprints that yield benefits for communities (Bunditsakulchai and Liu 2021; He and Mai 2021; Tosida et al. 2022). For instance, in Thailand, the private sector engages with other stakeholders to enact and enforce food waste policies (Bunditsakulchai and Liu 2021). Similarly, private investors collaborate with local authorities to incorporate a community-based perspective within coastal development planning as a guiding reference (He and Mai 2021). This exemplifies that the private sector's role necessitates a collaborative stance rather than isolation, entailing harmonious cooperation with pertinent stakeholders. In Indonesia, the private sector actively participates in the Smart Economy Development Plan with other stakeholders. Their contributions encompass distinct roles as trainers, investors, and potential buyers of commodities, collectively propelling the implementation of village-level smart economy initiatives (Tosida et al., 2022).

International Partnership (INP).

Within the reviewed literature, there is a notable scarcity of references to international partnerships in the context of SDG-related programs. Among the authors, only He and Mai (2021) and Hiratsuka et al. (2021) make mention of such partnerships. In the case of Vietnam, the international partnership seeks to establish water resource management technology for the Mekong Delta community. Conversely, in Laos, the partnership is centred around sustainable forest management projects. Both initiatives aim to improve community well-being and social sustainability and are supported by the Japan International Cooperation Agency (JICA).

National Partnership (NIP).

Both national and local governments, often called municipalities or local authorities in some countries, are responsible for fostering partnerships to advance the SDG localisation process. Collaborative efforts among stakeholders pertinent to the SDGs are integral to policy implementation across diverse levels and governmental structures. As He and Mai (2021) pointed out, stakeholders are critical to sustainable development because they contribute to collaborative efforts and support government initiatives (He and Mai 2021).

A prime example lies in sustainable coastal development, where stakeholder partnerships prove indispensable (He and Mai 2021). Such partnerships are equally critical in domains like sustainable tourism (He and Mai 2021), responsible waste management (Bunditsakulchai and Liu, 2021), the establishment of low-carbon societies (Leknoi et al. 2022), and the sustenance of local businesses (Sukma and Leelasantitham 2022).

From the review, it becomes evident that stakeholder collaboration holds considerable significance at the national level. Nevertheless, the discussion predominantly centres around partnerships at the national and local government tiers (Bunditsakulchai and Liu 2021; He and Mai 2021). In these governmental strata, the stakeholders engaged in constructive partnerships encompass municipalities or local authorities (Bunditsakulchai and Liu 2021; He and Mai 2021; Leknoi et al. 2022; Tosida et al. 2022), ministries and government agencies (Tosida et al. 2022), academia (Tosida et al. 2022), private sector entities (He and Mai 2021; Tosida et al. 2022), business entities, NGOs (He and Mai 2021; Tosida et al. 2022), and the local community (Tosida et al. 2022). These partnerships must invariably incorporate the three pillars of sustainability—society, economy, and environment—to yield far-reaching social repercussions (Sukma and Leelasantitham 2022).

Education (EDU).

Education stands out as a vital factor driving sustainable behaviour within communities, equipping them with knowledge and awareness on sustainability issues and their potential solutions. Through formal and informal training, education imparts an understanding of sustainability to communities.

In the study conducted by Bunditsakulchai and Liu (2021), it was discerned that individuals with higher levels of education, coupled with a heightened concern for social matters and global warming, exhibit a greater propensity to segregate food waste prior to disposal, steer clear of leftovers during dining out, and actively engage in reuse and recycling initiatives. Such proclivities stem from their possession of specific knowledge and awareness concerning threats to environmental sustainability. Furthermore, the research revealed a direct correlation between educational attainment and the likelihood of participating in food waste reuse/recycling (Bunditsakulchai and Liu 2021). Thus, the model put forth by Bunditsakulchai and Liu (2021) can stimulate public consciousness toward minimising household waste while augmenting communal awareness and elucidates the preliminary steps towards curbing household food waste.

Community knowledge and education are equally important in bolstering local-level initiatives in rural settings. Take, for instance, the implementation of the Smart Village concept in Indonesia, which hinges upon ICT literacy, educational access, and research and development (R & D) facilitation, all converging to create a knowledge and education hub within the community (Tosida et al. 2022). This education can take the form of various training programs. The training spectrum encompasses entrepreneurship, technology utilisation, language proficiency, and agricultural management programs tailored to the specific community's needs. Implementing these educational efforts empowers and shapes the community's character while fortifying collaborations among stakeholders, such as government entities and academia, who are accountable for offering specialised training to the local populace (Tosida et al. 2022).

Nevertheless, it remains apparent that communities with limited sustainability knowledge have restricted access to sustainable lifestyles, thus impeding the adoption of sustainable practices. Bunditsakulchai and Liu (2021) elucidated that specific communities lacked engagement in reuse and recycling activities. In He and Mai's study (2021), the coastal region's uneven development engendered barriers to knowledge and limited access to new information. Residents' unfamiliarity with sustainable tourism and businesses resulted from technology deficiencies, insufficient technical know-how, and language limitations (He and Mai 2021).

Public Participation Mechanism

Active public and citizen participation is an indispensable cornerstone in fortifying the tenets of democratic governance, thereby paving the way for the tangible realisation and continued advancement of the SDGs' development agenda. Public participation emerged as the final and crucial theme in the literature investigated. It is a notion that the active involvement of the public is not merely peripheral but rather a linchpin in fostering inclusive decision-making processes that encompass and empower those who stand to be affected by or bear interest in a given decision. For this essential dynamic to flourish, a seamless and ingrained procedural framework must exist, constituting a natural conduit for public participation to flourish.

Central to the essence of the public participation paradigm is the recognition that those individuals and groups who will be directly influenced by a specific decision inherently possess an inherent right to engage in the pertinent process. This tenet underscores the intrinsic value of their perspectives and insights, cultivating an environment where diverse perspectives enrich the decision-making process. The ramifications of public participation reverberate far beyond the immediate horizon, yielding a pronounced elevation of government transparency, openness, and accountability.

Beyond these essential attributes, the significance of public participation resonates profoundly in engendering a sense of shared ownership. This palpable investment in the fabric of projects, programs, and development choices sews the seeds of collective stewardship, solidifying a palpable commitment to their fruition. The collective engagement of the public can breed a robust tapestry of insights, input, and viewpoints. It collectively steers the course of these initiatives towards pathways that better serve the broader community. This symbiotic relationship harmonises the government's pursuits and the public's interests.

In the grand tapestry of sustainable development, public and citizen participation is not a mere afterthought but an integral, woven thread that holds the fabric together. Its empowerment of voices, democratisation of influence, and amplification of engagement coalesce to form a formidable foundation upon which the edifice of democratic governance stands. In this collaborative venture, aspirations transform into actions, ideals morph into outcomes, and collective progress emerges as the lodestar guiding the journey towards SDGs' fulfilment. The following subthemes elaborate on a collection of ideas within this theme.

Cooperation (CoP).

Family dynamics are essential in steering individuals towards adopting sustainable behaviours and lifestyles. This influence is evident in various contexts, as highlighted in the reviewed articles. Within the Thai community, family members, particularly the elder ones, emerge as key drivers in advocating for reusing and recycling, encouraging broader adoption of sustainable activities like waste reduction (Bunditsakulchai and Liu 2021). Their persuasive skills and intrinsic motivation foster an ethos of sustainability within the household.

This familial influence extends beyond individual households and permeates the broader community fabric. In Indonesia's context, the successful execution of the Smart Village initiative hinges on active family participation (Tosida et al. 2022). As a microcosm of community dynamics, the familial unit considerably impacts ICT literacy, enthusiasm for the Smart Village programme, and innovative village-level initiatives.

While family factors are potent catalysts, community-wide cooperation is also indispensable for effecting sustainable changes, particularly in waste management. Segregating food waste from general refuse and fostering a recycling culture necessitates collective involvement (Bunditsakulchai and Liu 2021). To this end, encouraging a mindful approach to grocery shopping, where individuals assess their needs and make conscious choices, curbs food waste and cultivates a positive mindset towards sustainability.

Community support emerges as a linchpin in the execution of localised SDG-related programs. In Indonesia's case, the triumphant realisation of the Smart Village blueprint hinges upon the robust foundation of community backing, aligned with elements such as environmental stewardship, empowerment, and innovation (Tosida et al. 2022). This collective endorsement fuels policy development and invigorates establishing a thriving smart economy at the grassroots level.

Moreover, fostering sustainable practices is intimately linked to harnessing community participation. In the study by Sukma and Leelasantham (2022), critical variables like change agents, stakeholder engagement, transparency, social networking, and good governance emerge as critical components in nurturing a community ecosystem that fosters sustainable businesses. This emphasises the need for joint efforts in developing resilient local businesses.

A community-centric approach is instrumental in understanding the attitudes and aspirations of coastal residents in Vietnam towards achieving SDGs via ecotourism (He and Mai 2021). This cooperative paradigm, marked by trust-building between the government and local inhabitants, sets the stage for

synergistic initiatives. The interplay between tourists and locals augments the appeal of authentic, rustic experiences, as exemplified by Airbnb ecotourism ventures in the scenic Mekong Delta.

Community involvement in Bangkok can potentially propel successful efforts to transform the city into a low-carbon hub (Leknoi et al. 2022). Trust emerges as a linchpin in this equation, spurring community engagement and constructive decision-making. Factors like awareness, perception, and knowledge regarding climate change amplify participation and facilitate the collective endeavour to curb human-generated greenhouse gas emissions.

In sum, the intricate interplay of family influence, community support, and broad participation underscores the intricate tapestry that weaves sustainability into the fabric of daily life. These dynamics, synergistically harnessed, have the potential to galvanise profound shifts towards a more harmonious coexistence with our environment and a more resilient, equitable future.

Change Agent (CA).

A change agent is a crucial intermediary, facilitating and bolstering the community's engagement in sustainable development initiatives. This comprehensive review further recognises the pivotal role of social media as an additional variant of change agents. As expounded solely by Sukma and Leelasantitham (2022), this insightful observation illuminates the transformative potential inherent in change agents and social media. These influential variables were identified as catalysts that can effectively nurture sustainability, particularly when viewed through the lens of business operations. This revelation underscores the intricate interplay of factors that underpin the journey towards more sustainable practices within diverse contexts.

Social Enterprise (S.E.).

Improving the resilience of local community enterprises is a powerful avenue for establishing long-term commercial pursuits and promoting a more sustainable society in general. This convergence of economic and social sustainability resonates as a critical goal, intertwining the threads of prosperity and societal well-being. A compelling study by He and Mai (2021) casts light on the transformative potential of amalgamating ecotourism with the innovative 'Airbnb model', yielding positive outcomes that significantly uplift the living conditions of residents. This dynamic synergy lends crucial support to the bedrock of sustainable local development. Particularly notable is the case of ecotourism along Vietnam's coastal regions, where a concerted effort to establish family-based enterprises harmonises economic prosperity with social responsibility, all while staying attuned to the environment. The implicit message is clear: A robust framework for sustainable business operations can effectively unite the domains of social well-being and ecological equilibrium.

A complementary perspective emerges through the lens of Sukma and Leelasantitham (2022), who expound upon the merits of sustainable businesses by putting forth an innovative community sustainability ecosystem model. This visionary approach offers a fresh paradigm for community-centred water supply enterprises, which can transcend their context and inspire transformations in diverse business fields oriented towards sustainability. The far-reaching implications of this model emphasise the profound potential for sustainable practices to transcend boundaries and manifest across various economic sectors.

Moreover, the work of Tosida et al. (2022) introduces an ingenious citizen science model that catalyses the forging of a smart economy within the framework of the Smart Village program in Indonesia. This forward-looking initiative recognises the indispensable role of entrepreneurship as a cornerstone for driving economic vibrancy and, concurrently, advancing sustainable goals. This strategic amalgamation of citizen science and entrepreneurial acumen provides a template for other contexts to foster similar synergies,

ultimately advancing the cause of sustainability in multifaceted ways.

In essence, the narratives of He and Mai (2021), Sukma and Leelasantitham (2022), and Tosida et al. (2022) collectively underscore the transformative potential embedded within fostering sustainable local businesses. This journey, infused with economic ingenuity and social inclusivity, promises to shape resilient commercial ventures and nurture communities that thrive in harmony with their environment, thus embodying the holistic essence of sustainability.

Empowerment (EMP).

The evaluation of community empowerment has emerged as a critical gauge in assessing the preparedness of villagers to cultivate an intelligent economy within the encompassing Smart Village ecosystem, as delineated by Tosida et al. (2022). This evaluative approach underscores that fortifying community support, engendering cooperation, fostering participatory decision-making, and facilitating seamless adaptation to ICT infrastructure are essential prerequisites for attaining robust community empowerment. An analogous sentiment is echoed in the work of Leknoi et al. (2022), wherein the embrace and active involvement of residents in the paradigm of the low-carbon city have synergistically catalysed the ascendancy of collective community empowerment.

The dividends reaped from this empowerment narrative are notably discernible in the Indonesian context, as elucidated by Tosida et al. (2022). The empowerment's catalytic effect in spurring innovation and resource mobilisation within the community is noteworthy. For instance, the improved ICT coverage within the Kabandungan District has bestowed power to mothers, allowing them to serve as internet voucher resellers and thereby augment their family income. This amplification of empowerment extends its reach, culminating in a self-sustained, community-driven initiative to manage local internet resources and empower women as a formidable cadre of self-managed internet resellers.

The intricate interplay of factors resonates in this evolving tapestry of community empowerment. From cultivating cohesive support networks to enhancing digital literacy, every thread contributes to the fabric of empowerment. These narratives underscore that as communities assume agency over their technological and economic destiny, they can catalyse innovation, financial growth, and an ethos of self-sufficiency. The transformation bolsters local economies and empowers individuals, especially women, to transcend traditional boundaries and contribute to their societies' collective growth and prosperity.

Support System (S.S.).

In this context, the concept of a support system encompasses the internal values that propel the community towards embracing sustainability. Among these values, "motivation" emerges as a central pillar, garnering prominence across several scrutinised articles. To illustrate, the vigour of "motivation" has been the impetus driving the Bangkok community to engage in efficient food waste management practices (Bunditsakulchai and Liu 2021). Consequently, the conscious choice of the community to segregate waste and curtail food wastage is inherently steeped in the motivation catalysed by the community's perception and prior awareness.

Nurturing community motivation is vital in augmenting the Smart Village initiatives in Indonesia, as elucidated by Tosida et al. (2022). Within this narrative, the enhancement of community motivation becomes imperative, particularly in kindling the ardour and willingness to implement an intelligent economy within the Smart Village framework. The convergence of motivation and aspiration thus stands as a cornerstone in charting the trajectory of sustainable progress, underlining the collective aspiration to foster

positive change and contribute to the holistic betterment of their surroundings.

Culture (CUL).

Effectively localising the SDGs, especially concerning environmental objectives, necessitates a cultural transformation that permeates individual and communal spheres. This cultural shift is a linchpin in cultivating a society rooted in sustainable behaviour and attitudinal change. An illustrative case lies in diminishing household food waste, which can take root at the individual level across all age demographics, as evidenced by the findings of Bunditsakulchai and Liu (2021). Notably, the young and the elderly exhibit comparable tendencies in generating food waste. Consequently, an imperative emerges to recalibrate community norms, fostering an environmentally conscious ethos.

Integral to this cultural evolution is the role of community perception, as underscored by Bunditsakulchai and Liu (2021). A compelling example emerges in waste disposal practices, where communal perspectives mould individual actions. This dynamic emphasises the interplay between community perception and individual behaviour, elucidating the influence of prevailing norms on the conscious management of food waste.

He and Mai (2021) advocate for ecotourism initiatives in coastal regions that delicately weave SDG-aligned cultural values and environmental stewardship as they transition to sustainable economic ventures. Integrating cultural elements into sustainable tourism should spotlight Vietnamese traditions and their inherent wealth. Noteworthy examples encompass traditional village crafts, spiritual tourism, and cultural explorations.

Inclusivity further mirrors a cultural facet that merits attention within the framework of public participation mechanisms. As Hiratsuka et al. (2021) outlined, customising strategies to embrace the diverse resources, traits, and governmental interactions of distinct ethnic groups residing in each region is paramount for ensuring equity. This ethos resonates with the spirit of SDG16, which centres on fostering inclusiveness. Thus, when orchestrating programs like Reducing Emissions from Deforestation and Forest Degradation (REDD+), it is imperative to pre-emptively address any imbalances among ethnic groups to prevent their exacerbation over time. At the grassroots level, rural populations should receive due recognition for their contributions, aligning with the collaborative relationship between government entities and each ethnic group’s efforts toward mitigating greenhouse gas emissions.



Fig. 2 SDGs Localisation in Southeast Asia: Themes and Subthemes

The analysis of themes and subthemes extracted from the literature underscores a harmonious distribution of significance among all the themes, with one notable exception: public participation. Fig 2 illustrates this feature as a vital initiative within the Southeast Asia Localization plan, notably in community cooperation. To effectively strategise for the implementation of SDGs across Southeast Asian regions, a proactive approach necessitates heightened emphasis on public participation, especially within municipal governance levels.

CONCLUSIONS

This analysis distinctly reveals four extensively implemented areas within the SDG's localisation strategies in the Southeast Asian region. Public participation mechanisms, particularly community cooperation, emerge as a prevalent and recurring theme across the reviewed articles. However, it is essential to note that the conclusions drawn from this analysis cannot be universally applied to all SDG localisation processes across Southeast Asia due to the limitation of focusing on only four countries.

The concept of SDG localisation gained central prominence post-2020, with most publications emerging in 2021. Furthermore, the scope of this study's search string concluded in December 2022. Given the limited quantitative resources centred on localisation within SCOPUS and Web of Science, future reviews should consider qualitative articles and encompass discussions from grey literature databases such as Google Scholar. It is essential as SDGs strategy is important, but the discussion on localisation of this global policy remains relatively underexplored, especially within Southeast Asia.

The current discourse surrounding SDG localisation is circumscribed, offering numerous avenues for further investigation. There is a pressing need for more studies on SDG localisation in the region to enrich the existing literature, mainly focusing on countries like Malaysia, which are actively engaged in SDG initiatives. Future empirical studies of the country's endeavours in realising SDG localisation at the state and local government levels can shed light on the commitment of various SDG stakeholders towards advancing the global agenda within intermediate and lower levels of government systems. Simultaneously, this article has come across a range of initiatives, each with the potential to significantly influence the advancement of SDGs, particularly at the local governance level. Subsequent research can delve into these elements individually to attain a more comprehensive understanding of SDG localisation strategies.

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