Youth Participation Strategies in Sustainable Development Goals Implementation in Malaysia and Indonesia

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ABSTRACT

Youths are considered integral stakeholders in implementing Sustainable Development Goals (SDGs), which will conclude in 2030. Their participation will determine the success of the global development agenda which has been promoted by the United Nations (UN) since 2015. This study reviewed 33 Scopus-indexed journal articles contributing to the discussion on youth participation in sustainable development or SDG-related programmes in Malaysia and Indonesia. The findings revealed that most journals implicitly placed SDGs as the central discussion theme. Nevertheless, reviewed journals were eligible for inclusion in the study as the articles focused on three sustainability pillars (environmental, social

and economic dimensions). The results revealed that youth participation strategies for sustainable development or SDG-related programmes occurred at the school and university levels. Incorporating formal education and practical approaches has strengthened the Education for Sustainable Development (ESD) principles which elevated youth understanding and sustainable practices. However, policy and institutional support are required in both countries to determine the success of SDGs. Further review involving journals from other reputable databases could provide a more exhaustive conclusion and enlighten new research opportunities.

Keywords: *Indonesia; Malaysia; SDGs; sustainable development; youth participation*

INTRODUCTION

In appreciating sustainable development, the education systems in Malaysia and Indonesia have evolved by integrating the environmental education components, reflecting the respective governments' commitment to instil the Education for Sustainable Development (ESD). Environmental education in Malaysia has been included in the New Elementary School Curriculum (KBSR), Primary School Curriculum (KSSR) and Cross-Curricular Elements (EMK) (Yusof et al., 2021). Conversely, the environmental education programme in Indonesia was introduced in schools nationwide in 2006 by the Ministry of the Environment (MoE) (Tanu & Parker, 2018). However, the implementation in both countries has been challenging. Environmental education is not a specific subject in Malaysia, and its general principles are dispersed across the curriculum (Phang et al., 2016). While in Indonesia, the Ministry of Education and Culture (MOEC) plays a minimal role in implementing environmental education (Tanu & Parker, 2018). Consequently, the lack of involvement by the relevant authorities may lead to teachers lack of awareness and impede the efforts to educate the younger population on the importance of protecting the environment and influencing their sustainable practices (Phang et al., 2016; Tanu & Parker, 2018).

With regard to tertiary education, the Malaysia Educational Blueprint 2015-2025 (Higher Education) focuses on transforming Malaysia's higher education operationalisation by aligning it with

sustainability principles. Sustainable campus and stakeholders' engagement are among the agenda of the educational blueprint. In contrast, the new higher education policy in Indonesia - Freedom of Learning ("Merdeka Belajar") and Independent Campus ("Kampus Merdeka") attempts to enhance students' competencies, foster independent learning and encourage the youth to be pioneers in sustainable projects inside and outside the university (Asfarian et al., 2020).

Based on the commitment of both countries toward ESD, this study aimed to review the existing literature to stimulate the participation of the younger generation in realising the sustainability agenda by considering the criticality of sustainable development. This study also highlights the gaps in the research literature and offers recommendations to encourage more sustainable youth participation.

METHODS

This study employed a systematic review to assess the literature concerning two criteria: a) A journal article relevant to sustainable development and SDG-related programmes implementation in Malaysia and Indonesia, b) Youth participation strategies in implementing SDGs in Malaysia and Indonesia. The authors aimed to assess youth participation strategies in sustainable development or SDG-related programmes in both countries by reviewing journal articles published in Scopus-indexed journals up to September 2021. The selection of articles was limited from 2015 to 2021 since SDGs were introduced by the United Nations (UN) in 2015. Table 1 shows the search strings used to search for relevant journal articles from the database.

The initial search resulted in 243 journal articles. As shown in Figure 1, the publication trend on the topic related to youth in sustainable development and SDGs implementation in both countries has increased from 2015 to the present, indicating a promising study area. In this review, the authors chose journals that employed qualitative, quantitative, and mixed study methods. The screening and filtering process led to the exclusion of papers for the following reasons: a) The full paper cannot be retrieved, b) Unrelated topic and context, c) Conference proceedings, review paper and chapter in books, and d) Duplication of articles. Thus, the journal

figure was reduced to 33, and thematic analyses were conducted (Refer to Table 2).

Table 1
The search string used in this study

Database	Search string
Scopus	("Youth" OR "Student*" OR "Young" OR "Young People" OR "Teenager" OR "Young Person" OR "School" OR "Universit*" OR "Higher Education" OR "Higher Education Institu*" OR "Tertiary" OR "NGO*" OR "Non-Government* Organisation*") AND ("Engage*" OR "Participate*" OR "Involve*" OR "Empower*") AND ("Sustainable Development" OR "Sustainability" OR "Sustainable Development Goal*" OR "SDG*" OR "Agenda 2030" OR "Global Agenda" OR "Post 2015") AND ("Malaysia" OR "Indonesia")

Figure 1
The publication trend (2015-September 2021)
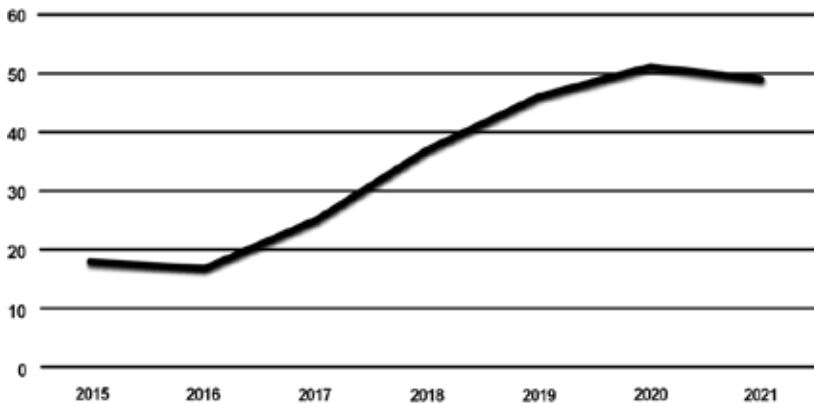
RESULTS

This section will discuss the findings from the 33 reviewed journals (Refer to Table 2). Themes were developed and presented in this section by only focusing on youth participation strategies in sustainable development or SDG-related programmes in Indonesia and Malaysia – as highlighted in the reviewed journals. The themes of the strategies were further discussed within the scope of "A Dynamic ESD Teaching and Process at School and University Levels" and "Policies and Institutional Improvement".

A Review on Youth Participation Strategies in Sustainable Development or SDG-related Programmes Implementation in Malaysia and Indonesia

The ESD at the school and tertiary levels of education was found to be the best way to elevate youth comprehension and practices on sustainable development in the review. Nevertheless, incorporating ESD into the formal education system in youth reside is challenging. The government's ESD policies are less visible while educators lack a good understanding of the subject matter. Despite the call for educational improvement, various strategies have been implemented to encourage youth participation in sustainable development or SDG-related programmes in Malaysia and Indonesia (Refer to Table 2 and Figure 2).

Table 2
List of literature in this study

No	Author (s)	Year	Youth participation strategies in sustainable development/SDG-related programmes implementation (Malaysia and Indonesia)
1.	Alam et al.	2021	Community-based programme
2.	Balakrishnan et al.	2020	Education for Sustainable Development (ESD)
3.	Hamid et al.	2019	Generic green skills in teaching and learning
4.	Jeongho et al.	2020	Experiential learning and 3R activities
5.	Kanapathy et al.	2021	Education for Sustainable Development (ESD)
6.	Michael et al.	2020	Sustainability teaching and recycling activities
7.	Mahat et al.	2020	Low carbon school community programmes
8.	Nayan et al.	2020	Climate change mitigation practices and adaptation
9.	Phang et al.	2016	Low carbon education programmes
10.	Shabdin and Padfield	2017	Eco-tourism
11.	Sundram et al.	2021	Sustainable transportation in university
12.	Syed Azhar et al.	2020	Student-led initiatives under the Kampus Sejahtera flagship
13.	Tien et al.	2020	Programmes that nurture transformative learning
14.	Wahab et al.	2020	Sustainable education

15.	Weng et al.	2015	Outdoor activities
16.	Yaaman et al.	2019	Conservation programs, sustainability education
17.	Yusof et al.	2021	Geo-education, cross-curricular elements
18.	Zaman et al.	2020	Experiential learning, integrating technology with SDGs
19.	Zen et al.	2019	University living-learning lab
20.	Zen et al.	2016	Waste minimisation and characterisation project
21.	Anekawati et al.	2020	Education for Sustainable Development (ESD)
22.	Asteria and Haryanto	2021	Waste management training
23.	Baroroh et al.	2021	Problem-based learning in the sustainable tourism programme
24.	Chandra et al.	2021	Sustainable social entrepreneurship
25.	Ekantini and Wilujeng	2018	Education for Environmental Sustainable Development (EESD)
26.	Famiola and Wulansari	2020	Education for Sustainable Development (ESD)
27.	Garaika	2020	Sustainable social entrepreneurship
28.	Manaf et al.	2018	Community-based programmes
29.	Kinoshita et al.	2019	Sustainability education
30.	Sari et al.	2020	University sustainability reporting
31.	Tanu and Parker	2018	Environmental education programme
32.	Wisesa et al.	2017	Sustainable community development programme
33.	Zidny and Eilks	2020	Sustainability education

Figure 2
Youth participation strategies in sustainable development or SDG-related programme

EDS Teaching and Learning

Policies and Institutional Development

SUSTAINABLE DEVELOPMENT GOALS

The discussion on these strategies is as follows:

Strategy 1: A Dynamic ESD Teaching and Process at School and University Levels

Embedding the ESD into the educational system could produce a younger generation which can work towards sustainable development to achieve SDGs. Two significant ways to implement a dynamic ESD are through adopting technology and creating interactive teaching and learning.

Adopting Technology-based Learning and Projects with the SDGs

Reviewed journals provide models of best practices on integrating technology and SDGs into teaching, learning and project management activities involving students. The first is by integrating the educational course content with technology elements. It will offer students a real learning experience and add value to their skill set. In Zaman et al. (2020), the engineering students' experiential learning and multi-skilling were nurtured by integrating three-dimensional (3D) printing and technology applications. They were required to conduct SDG-themed projects and propose sustainable solutions by combining technology and innovation components relevant to their roles as future engineers (Tien et al., 2020; Zaman et al., 2020).

Secondly, teaching sustainable development using online platforms such as e-learning, integrated Information and Communication Technology (ICT), and electronic devices. Apart from serving as an open space that provides materials and resources, the new technology-based pedagogy will promote generic green skills, create a low-carbon society, and reinforce environmental sustainability (Hamid et al., 2019; Kanapathy et al., 2021). Adopting these green practices will allow youths in both countries to indirectly participate in the SDGs through the teaching and learning processes, thus transforming the environmental education (Tanu & Parker, 2018).

The third is through social media. It was proven in both countries that social media effectively promotes sustainability-related programmes, attracts youth participation, and raises awareness (Asteria & Haryanto, 2021; Michael et al., 2020; Syed Azhar et al., 2020). Platforms such as

Facebook and Twitter used to spread information on youth-led initiatives and the university's "green policy" could provide quicker communication, promotion SDG-related programmes, and retain student engagement (Michael et al., 2020; Syed Azhar et al., 2020).

Interactive Teaching and Learning Process

Interactive teaching and learning combine in-class activities and outside-the-classroom projects to create an impactful learning experience at the school and university levels. There exists a hybrid process in teaching and learning the SDGs from the journal reviewed.

For example, students participate in an activity incorporating Chemistry into Socio-Scientific Issues (SSI) in both countries. It offers classroom and non-classroom experiences on sustainable development, and students are provided space to decide on their projects and link issues with sustainable solutions (Jeongho et al., 2020; Zidny & Eilks, 2020). This learning approach has nurtured students' passion, improved their knowledge, and promoted the practising of sustainable behaviour. It further discovered that the 3R programmes are still relevant to Malaysian students in promoting sustainable behaviour (Hamid et al., 2019; Jeongho et al., 2020).

Subsequently, outdoor activities were also utilised to expose students to sustainable development. Students have participated in the university's waste profile and characterisation project (Zen et al., 2016). National parks were also chosen as outdoor laboratories where students conduct fieldwork and science research (Weng et al., 2015). This outdoor research-based activity will strengthen students' knowledge and utilise the full potential of biodiversity. All the examples mentioned above indicate that education is dynamic in that sustainable development theories taught in the class can be incorporated with real experience to impact the learners.

Interactive teaching and learning also include specific projects on sustainable development. Malaysian universities are adopting a sustainable campus approach and student-centred learning in their sustainability programme. The findings by Michael et al. (2020) highlighted that most university students were engaged in voluntary projects such as recycling that enhanced their critical thinking. Similarly, student-led sustainability

initiatives at the university level will intensify the bottom-up approach, empower students and sustain the programme (Syed Azhar et al., 2020).

In the Indonesian context, youth empowerment is evident through various sustainable development training, such as waste management (Asteria & Haryanto, 2021). In contrast, integrating workshops, case stories, and scenario reports in City Sustainability Education Programmes has increased environmental concern and responsibility, particularly among male students (Kinoshita et al., 2019). Youth empowerment also appears from an economic perspective of sustainability. The social entrepreneurship programmes empower youth to become sustainable social entrepreneurs (Garaika, 2020; Chandra et al., 2021). Hence, early ESD exposure to the younger generation will guarantee social and environmental practices in youth-led businesses (Famiola & Wulansari, 2020).

Strategy 2: Policies and Institutional Improvement

Good governance, stakeholder management, institutional commitment, and plans for sustainable development will be more effective with the government's ESD policy. Thus, sustainable development-related programmes could be institutionalised to encourage youth participation.

The Institutionalising Sustainable Community Concept

Creating a sustainable community is challenging as it requires a strategic initiative that fosters sustainable changes, particularly at the institutional and community level. For example, Sundram et al. (2021) suggested that green and sustainable transport awareness should be institutionalised in school and tertiary education to support both countries' low carbon policies. However, the universities limited intervention and students preferences have hampered sustainable practices (Sundram et al., 2021). Rural youth migration to urban areas was another challenge in the sustainable community (Shabdin & Padfield, 2017). Thus, a sustainable tourism initiative was proposed to strengthen the rural youth economy. According to Manaf et al. (2018), the youth-led initiative and stakeholder engagement has successfully transformed Indonesian sustainable tourism in rural areas. Hence, youths in Malaysian rural areas should also be empowered and urged to reap the benefits of eco-tourism activities (Shabdin & Padfield, 2017). Besides the government, university youths can be agents of change within this context by applying Project-Based Learning (PBL)

and creating sustainable rural community development projects (Wisesa et al., 2017; Baroroh et al., 2021). Applying PBL will guarantee students' meaningful participation and be part of the transformative learning process to create sustainable communities that will inherit sustainable projects (Tien et al., 2020).

Policies and Blueprint on ESD

The ESD components must be strengthened by reviewing the countries' education policies and official blueprints to align with the global sustainable agenda (Michael et al., 2020). The following strategies explain the approach:

Curriculum Review

Revisions of curricula at all education levels are recommended by incorporating ESD and SDGs. It will enhance students' knowledge and offer a new skillset to the learners, particularly the green skills that will nurture sustainable human behaviour towards environmental concerns. These new sustainability skills will complement the existing technical and generic skills that conform to the 21st-century skills (Michael et al., 2020). Apart from a specific sustainable development course (Michael et al., 2020), youth respondents in a study by Zidny and Eilks (2020) highlighted the need to embed sustainable development concepts across the curriculum due to the interdisciplinary connections. The findings aligned with Yusof et al. (2021), who suggested that adopting cross-curricular elements of environmental education will support the successful implementation of ESD.

Training for Academician (Teacher and Lecturer)

Continuous training and opportunities (time and grant assistance) should be made available to the educators to equip them with the necessary knowledge and skills relevant to the sustainable development (Kanapathy et al., 2021). Therefore, they will have early exposure to sustainable development concepts and be aware of the significance of integrating the concepts into the courses offered. Training provided to educators can prepare them to navigate and develop sustainability-related courses that could bring sustainable changes to students. For example, designing class activities that expose learners to the three sustainable development pillars to shape their knowledge, skills, and attitudes to achieve the SDGs (Balakrishnan et al., 2020). Overall, the training will uplift educators'

understanding and skills in sustainable development before inspiring learners to participate.

Sustainable Governance and Stakeholders Management

Sustainable governance and stakeholder management should be evident in the education structure. Both countries require sustainability policies, strategies, reporting, learning facilities, and quality education that nurture students' interest and opportunities in the sustainable development (Anekawati et al., 2020; Sari et al., 2020; Yaaman et al., 2019; Zen et al., 2016). For instance, Malaysian universities are committed to the sustainable campus concept by adopting the top-down and bottom-up approaches to sustainable governance by including extensive stakeholders management, including the youth (Zen et al., 2016; Syed Azhar et al., 2020; Kanapathy et al., 2021). However, the discussion on its practices was limited to higher education rather than the school level. Hence, Tanu and Parker (2018), and Alam et al. (2021) highlighted the significant roles of ENGOs in both countries in nurturing environmental interest among the younger generation at the school level in supporting sustainable governance and stakeholder management concepts. Moreover, the responsibility of protecting the environment and promoting sustainable livelihood also lies in multi-stakeholder engagement, particularly in youth-led sustainability and environmental-based activities (Alam et al., 2021; Asteria & Haryanto, 2021; Kinoshita et al., 2019; Weng et al., 2015).

DISCUSSION

In this review, findings from the respective journal have concluded few indications towards SDGs achievement and progression in both countries. Stakeholders governance (Alam et al., 2021; Asteria & Haryanto, 2021; Baroroh et al., 2021; Kanapathy et al., 2021; Kinoshita et al., 2019; Manaf et al., 2018; Weng et al., 2015; Wisesa et al., 2017; Zen et al., 2016), ESD at the school level (Ekantini & Wilujeng, 2018; Famiola & Wulansari, 2020; Mahat et al., 2020; Phang et al., 2016; Tanu & Parker, 2018; Yusof et al., 2021; Zidny & Eilks, 2020) and ESD at higher education institutions (Balakrishnan et al., 2020; Baroroh et al., 2021; Hamid et al., 2019; Jeongho et al., 2020; Kanapathy et al., 2021; Michael et al., 2020; Sari et al., 2020; Sundram et al., 2021; Syed Azhar et al., 2020; Tanu & Parker, 2018; Tien et al., 2020; Wahab et al., 2020; Yaaman et al., 2019; Zaman et al., 2020;

Zen et al., 2019; Zidny & Eilks, 2020) were concluded as significant strategies that could guarantee youth participation in the SDG-related initiatives. Various sustainability areas of concern have also been highlighted in these reviewed journals and to be equipped within the youth groups to nurture their sustainability behaviour which includes; sustainability generic green skills (Hamid et al., 2019), low carbon practices (Mahat et al., 2020; Phang et al., 2016), sustainable transportation (Sundram et al., 2021), sustainable economy (Baroroh et al., 2021; Chandra et al., 2021; Famiola & Wulansari, 2020; Garaika, 2020; Manaf et al., 2018; Shabdin & Padfield, 2017; Wisesa et al., 2017), and waste management practices (Asteria & Haryanto, 2021). The adoption of sustainable development and SDGs approaches is viewed as essential, and their inclusion in the education system of both countries could merit more serious consideration. However, the concept of economic sustainability among youths as one of the sustainable development pillars has gained more attention in Indonesia than Malaysia.

This review has discovered the importance of schools and tertiary education in promoting sustainable development through formal and informal education activities that positively impact the younger generation. Nevertheless, more attention was given to youths at the university level as it is a learning hub that empowers students, produces practitioners, improves societal well-being and engages with multi-stakeholders (Balakrishnan et al., 2020; Michael et al., 2020; Syed Azhar et al., 2020; Wahab et al., 2020; Zen et al., 2016). The sustainability exposure should also include the younger generation at the school level to nurture their command and shape their sustainable practices from an early age. Based on the empirical study, the level of understanding among youths towards sustainable development differs between education levels and years of study. Hence, the approach to teaching sustainable development must be aligned accordingly. The nexus of environmental, social and economic sustainability should be exposed at both education levels to ensure that the youth will have a holistic understanding. Those youths outside the education system, particularly at the community level, should also be prioritised equally.

Schools in Malaysia are focusing on low carbon reduction programmes while the sustainability concept was embedded in the academic courses in tertiary education. The 3R activities remain relevant at both education levels. In Indonesia, environmental education has increased youth

understanding and participation (Ekantini & Wilujeng, 2018). Similarly, sustainable development programmes at the university level in both countries are project-oriented. Students identify community issues, associate the issues with sustainability principles, and propose sustainable solutions. They were trained as problem identifiers, institutional innovators, and problem-solvers by integrating the courses with research activities (Syed Azhar et al., 2020; Zen et al., 2016). In this context, students must use their higher-order critical thinking and superior skills. Nevertheless, most journals present research in science stream courses rather than social science.

In a sustainability programme, youths act as change agents and communicators (Wisesa et al., 2017). Hands-on activities have sparked youth interest and passion for participating in sustainability-related programmes as they will be empowered. Continual sustainability activities in the education system have garnered more youth participation and elevated their understanding, awareness, and practices. This confirms the importance of educational institutions as the right platform to expose sustainable development and the SDGs concepts. Concurrently, both countries' environmentally-friendly education facilities and technology must be improved to intensify sustainable development pedagogy. The traditional teaching approach has now shifted to be digital-based and accessible to the learning community, especially during the Covid-19 pandemic. Hence, both countries should take advantage of digital learning for sustainable development.

Moreover, top-down directives and policies are pertinent to implementing sustainable development concepts at all levels (Kanapathy et al., 2021). For instance, ESD policies will materialise youth participation in sustainability or SDG-related educational programmes. The policies will create sustainable school and campus concepts that will impact a sustainable community. Both countries face policies and institutional challenges in intensifying the ESD in the educational context. Alternatively， youths in education institutions could collaborate with other stakeholders to create SDG-related programmes by targeting more extensive youth groups.

CONCLUSION

Youth participation in sustainable development programmes and SDGs could be specifically materialised via a country's educational system by aligning with the ESD. The theories learned in the class must be integrated with practical activities that stimulate the psychomotor domain of learning. However, the teaching and learning ecosystem must support the three pillars of sustainable development. Policy and institutional arrangements toward sustainable governance are required and offer positive impacts to the youth community.

As a specific study topic, the SDGs have received little attention, particularly in the Malaysian context. Most discussions on sustainable development were presented as generic principles or environmental education. Hence, more empirical evidence that associates youth with SDGs is required due to the dearth of literature. Several future studies in the following areas could provide novel findings, not limited to Malaysia and Indonesia, but within the context of the Association of Southeast Asian Nations (ASEAN):

a) A continuous study is needed at school and tertiary levels, exploring the students, educators, administrators, and top management knowledge and practice on SDGs.
b) The ESD will support the implementation of SDGs. Researching ESD and SDGs in the school and university curriculum structure for science and social science is crucial. The nexus could be from the view of Science, Technology, Engineering, Arts and Mathematics (STEAM), Industrial Revolution 4.0 (IR4.0) and the three sustainable development pillars.
c) More empirical studies are needed to explore and explain various youth groups' understanding, awareness, and practices toward SDGs for more inclusive findings.
d) The stakeholders' engagement in the SDGs governance framework will serve as another study dimension.
e) Future studies should include journals from other reputable databases to provide an exhaustive review.

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All authors contributed equally to the write-up of the article.

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CONFLICT OF INTERESTS

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