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ENHANCING STUDENT LEARNING AND COMMUNITY IMPACT: SDG-BASED SULAM PROJECTS IN ENVIRONMENTAL ECONOMICS

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Abstract:

This study develops a structured model for embedding Sustainable Development Goals (SDGs) into SULAM (Service-Learning Malaysia – University for Society) activities within the Environmental Economics course at Universiti Teknologi MARA (UiTM). The aim is to enhance students' experiential learning while generating meaningful, sustainable outcomes for host communities. Qualitative data were collected from 25 students and 15 community participants through reflective writings, programme reports, and feedback sessions, and analysed using thematic analysis. Findings highlight five main challenges: limited SDG alignment, overemphasis on environmental awareness, insufficient economic value creation, lack of sustainable monitoring, and minimal participatory planning. In response, a five-component SULAM–SDG framework is proposed, comprising cross-cutting environmental–economic goals, inclusive planning, SDG mapping, sustainable outputs, and measurable impact with continuous feedback. The framework integrates Environmental Economics principles, promotes SDG localisation, and strengthens community engagement. The study concludes that structured, participatory, and SDG-aligned SULAM projects can simultaneously deepen students' understanding of environmental and economic interconnections and deliver tangible, long-term benefits to communities. The framework offers a replicable approach for higher education institutions to integrate service-learning with sustainability education, foster responsible graduates, and support inclusive community development.

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Keyword:

Community Engagement, Environmental Economics, Service-Learning, SDG Localisation, Sustainability



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Introduction

One of the core courses offered under the BA280 – bachelor’s in business economics (Honours) programme at Universiti Teknologi MARA (UiTM) is Environmental Economics, a subject that equips students with the knowledge and analytical tools needed to understand the interplay between economic development and environmental sustainability. As UiTM advances its mission to produce globally competitive, ethical, and sustainability-oriented graduates, the Environmental Economics course plays a crucial role in shaping students’ capacity to evaluate environmental challenges from an economic perspective.

In line with UiTM’s commitment to supporting national sustainability efforts and strengthening community engagement, the university actively implements SULAM (Service-Learning Malaysia – University for Society), a transformative teaching and learning framework introduced by the Ministry of Higher Education. SULAM promotes experiential learning that connects academic theory with real-world application, enabling students to translate classroom knowledge into meaningful community-based solutions (Wahab, 2024). Complementing this approach, the Sustainable Development Goals (SDGs) provide a universal blueprint for global transformation, emphasising the integration of environmental protection, economic growth, and social inclusion (Abdullah & Fairoos, 2026). Embedding SDGs into SULAM activities ensures that student projects are not only academically rigorous but also aligned with global sustainability priorities, thereby reinforcing UiTM’s role in cultivating responsible, environmentally conscious, and economically literate graduate.

This article proposes a structured model for embedding the Sustainable Development Goals (SDGs) into SULAM activities within the Environmental Economics course at UiTM. The proposed model incorporates cross cutting environmental and economic goals, inclusive planning, SDG based activity mapping, sustainable outputs, and measurable community impacts. Through this integrated approach, SULAM functions not merely as a teaching methodology but as an experiential sustainability platform that strengthens students’ understanding of the interconnections between environmental systems and economic development. At the same time, it contributes direct value to communities, positioning UiTM as a leading institution in advancing nation building, sustainability education, and community empowerment.

Literature Review

The literature review examines three key areas relevant to the integration of Sustainable Development Goals (SDGs) into SULAM activities within the Environmental Economics

course: service-learning and experiential pedagogy, the role of higher education in SDG implementation, and the application of Environmental Economics principles in community engagement. Understanding these areas provides a foundation for designing structured, participatory, and SDG-aligned service-learning projects that generate both educational and community impact.

Service-Learning and Experiential Pedagogy

Service-learning is widely acknowledged as a high-impact educational practice that enhances academic learning, civic responsibility, and social awareness (Anderson et al., 2019). Grounded in experiential learning theory, service-learning enables students to construct knowledge through direct engagement, reflection, and application (Wahab, 2024). Previous studies demonstrate that service-learning improves students' critical thinking, problem-solving skills, and ethical sensitivity, particularly when community engagement is meaningfully integrated into course objectives (Hanum et al., 2021; Mohamad et al., 2024).

Globally, service-learning has been extensively adopted in higher education systems, particularly in countries. According to Mandleni (2023), University–community impact is increasingly recognised as a critical component for higher education institutions (HEIs) in ensuring the effective delivery of community engagement (CE) initiatives. Meanwhile, Mancini et al., (2022) highlighted that The European Union (EU) has increasingly emphasised that higher education institutions (HEIs) should demonstrate greater social relevance and responsibility, particularly in addressing the needs of underserved or marginalised communities. In Indonesia, service-learning improved students' leadership and problem-solving skills during COVID-19, though challenges like technology access and community participation required flexible program design (Ferdiansyah, Winarno, & Ardhita, 2022). In Malaysia, SULAM represents a formalised approach to service-learning that integrates curriculum delivery with community engagement and assessment (MOHE, 2019). Prior studies indicate that SULAM enhances students' soft skills and social responsibility while strengthening university–community linkages (Adam & Mohamed, 2024). Nevertheless, the effectiveness of SULAM depends heavily on project design, community participation, and alignment with broader development goals.

SDGs and Higher Education

The 2030 Agenda for Sustainable Development underscores the role of education in achieving integrated and inclusive development outcomes (Assef & Mujtaba, 2025). High Educations are increasingly encouraged to embed SDGs across teaching, research, and outreach activities (Leal Filho et al., 2023). SDG-aligned curricula have been shown to enhance students' systems thinking and sustainability competencies. However, SDG integration in higher education often remains fragmented or symbolic, with limited use of targets and indicators for monitoring impact (Huang et al., 2020). This challenge is particularly evident in community-based learning initiatives, where sustainability objectives are frequently implicit rather than explicitly operationalised.

Environmental Economics and Community Engagement

Environmental Economics emphasises efficiency, equity, and sustainability in resource allocation (Laurent, 2020). Community-based projects provide an ideal platform for applying

these principles through interventions related to waste management, sustainable livelihoods, and behavioural change. Nonetheless, several studies indicate that student engagement in university-led sustainability initiatives remains limited, even when institutions actively promote environmental agendas. For instance, Ang (2021) found that nearly half of the students (N = 14; 45%) had not participated in social programmes related to the SDGs, despite the university's adoption of a 'Green Campus' philosophy and efforts to implement the Local Agenda 21 through SDG integration. Another study found that students generally held moderate-to-high positive attitudes and perceptions toward campus sustainability programs, with attitudes explaining 45% of the variance in perception (Azhar et al, 2023). This highlights the importance of fostering student engagement to support effective sustainability strategies.

Research Method

This study adopts a qualitative research approach to develop a structured model for embedding the Sustainable Development Goals (SDGs) into SULAM activities within the Environmental Economics course at UiTM. The approach draws directly from feedback and reflections collected from previous SULAM programs to ensure the model is grounded in real experiences and practical outcomes.

Participants

Qualitative data were obtained from a total of 40 respondents, comprising 25 Semester 5 students enrolled in the Environmental Economics course and 15 community participants involved in the SULAM activities. A purposive sampling technique was employed to select participants who had direct involvement and relevant experience in the SULAM programme, ensuring the richness and relevance of the data collected. Purposive sampling enables the selection of participants with relevant knowledge and direct experience, ensuring the collection of rich and meaningful data aligned with the research objectives (Tajik, Golzar, & Noor, 2025). It is also efficient for qualitative studies, allowing in-depth insights to be obtained from a relatively small and targeted sample (Robinson, 2024).

Study Design and Research Ethic

The data were drawn from students' reflective, and feedback gathered during community engagement activities. This study adopts a qualitative research design to examine the integration of Sustainable Development Goals (SDGs) into SULAM activities. To ensure ethical compliance, the study underwent a faculty-level approval process prior to data collection. Ethical approval was obtained from the UiTM Research Ethics Committee (Approval No: REC/02/2025 (PG/MR/62)). Written informed consent was obtained from all participants, and participation was voluntary. All data were treated with strict confidentiality and anonymity. The study adhered to established ethical guidelines for research involving human participants, ensuring that ethical standards were maintained throughout the data collection and analysis processes.

Data Analysis

Qualitative data were systematically analysed using thematic analysis to explore key factors related to SDG alignment, community participation, and sustainability outcomes within SULAM activities. All qualitative data, including students' reflective writings, programme

reports, and community feedback, were carefully organised and reviewed to ensure consistency throughout the analysis process. The analysis involved an in-depth examination of the textual data through open coding, followed by axial coding to identify and refine key themes. Several major themes emerged, including SDG alignment, participatory planning, economic value creation, sustainability monitoring, and community engagement.

To enhance the reliability and validity of the findings, this study employed data triangulation by cross-referencing multiple data sources, including reflective writings, programme reports, and community feedback. In addition, relevant literature was used to support the theoretical interpretation of findings, and participant feedback was incorporated to validate the accuracy and credibility of the results.

Research Finding

Based on these findings, SULAM activities were systematically mapped to relevant SDG targets. This process allowed for the identification of activities that effectively produced both environmental and economic benefits, as well as areas that required improvements in planning, implementation, and monitoring. By aligning activities with SDGs, future SULAM projects can achieve greater impact on community development while enhancing students' experiential learning outcomes.

Table 1: Evidence from Previous Program Responses

	Theme	Evidence from Previous Program Responses
1	Limited SDG Alignment	Activities were not fully mapped to relevant SDG targets; focus remained narrow.
2	Overemphasis on Environmental Awareness	Students and community activities focused mostly on environmental awareness, with minimal integration of economic or social SDGs.
3	Insufficient Economic Value Creation	Projects did not address community economic challenges or sustainable livelihoods.
4	Lack of Sustainable Monitoring	Most activities were assessed only once, with no follow-up data, indicators, or continuity plans
5	Lack of Inclusivity in Planning	Engagement was surface-level, not participatory. Planning processes were largely lecturer-driven, with minimal involvement from community leaders, vulnerable groups, or local stakeholders.

The qualitative analysis of reflections and feedback from students and community participants revealed several interconnected limitations in the implementation of SULAM activities within the Environmental Economics course. Overall, while the activities were framed around sustainability objectives, their alignment with the Sustainable Development Goals (SDGs) was

limited and often implicit. Most projects were not systematically mapped to specific SDG targets or indicators, resulting in a narrow interpretation of sustainability that focused primarily on environmental themes rather than a balanced integration of environmental, economic, and social dimensions.

The findings further indicate a strong overemphasis on environmental awareness initiatives, such as conservation campaigns, cleanliness programmes, and environmental education activities. Although these initiatives contributed to increased awareness among participants, they demonstrated limited integration of economic and social SDGs. Consequently, opportunities to incorporate elements related to income generation, cost reduction, local economic empowerment, or social inclusion were largely overlooked. This imbalance reduced the potential of SULAM activities to deliver holistic sustainability outcomes that are consistent with the principles of Environmental Economics.

In addition, the analysis revealed that SULAM projects generally lacked meaningful economic value creation for host communities. Most activities did not address community-specific economic challenges or promote sustainable livelihood opportunities. This suggests a disconnect between the theoretical foundations of Environmental Economics and their practical application within community-based learning contexts, limiting the relevance and long-term benefits of the projects. Another key finding relates to the absence of sustainable monitoring and evaluation mechanisms. Most activities were assessed only once, typically upon project completion, with no follow-up data collection or continuity plans. The lack of baseline indicators and longitudinal monitoring constrained the ability to assess behavioural change, environmental improvements, or economic impacts over time, thereby weakening the evidence base for project effectiveness.

Finally, the findings highlight limitations in inclusivity and participatory planning. Community engagement was often surface level, with project planning and decision-making largely driven by lecturers and students. Community leaders, vulnerable groups, and local stakeholders were minimally involved in the design phase, which reduced community ownership and the sustainability of project outcomes. Collectively, these findings underscore the need for a more structured, inclusive, and SDG-aligned approach to SULAM implementation within Environmental Economics education.

Elements for SDG-Aligned SULAM Project Selection

The United Nations 2030 Agenda emphasizes the need for integrated approaches to achieve the SDGs, highlighting the importance of participatory planning, evidence-based evaluation, and contextually relevant interventions (UN-Habitat, 2024). In response to these challenges, this article proposes a SULAM–SDG framework identifies FIVE key elements to guide the selection of SULAM projects that explicitly incorporates SDG alignment, inclusive planning, sustainable outputs, and measurable impact, supported by a feedback loop for continuous learning and adaptive management. A graphical representation of the element of the model summarises in Figure 1.



Figure 1: SULAM–SDG Framework

Based on the feedback from students and communities, SULAM project specifically for environmental economic course need improvement such as the need for more participatory planning, clearer linkage to SDGs, and ongoing support to ensure long-term adoption of sustainable practices as summarise in Table 2.

Table 2: Key Areas for Improvement in SULAM Project Based on Feedback

Component	Description	Purpose in SULAM–SDG Integration
Cross-Cutting Goal	Establishes blended environmental and economic objectives that guide overall project direction.	Ensures all activities simultaneously support ecological sustainability and community economic well-being.
Inclusive Planning	Involves students, lecturers, and community stakeholders in participatory planning.	Enhances relevance, equity, and ownership of activities through shared decision-making.
SDG Mapping	Aligns each planned activity with specific SDGs, targets, and indicators.	Provides clear sustainability direction and strengthens alignment with national and global development agendas.
Sustainable Outputs	Produces environmental–economic outcomes such as low-cost green solutions, livelihood opportunities, or behavioural change.	Ensures projects deliver tangible and long-term value to communities.

Measurable Impact	Uses environmental and economic indicators to assess changes in knowledge, behaviour, and community conditions.	Strengthens accountability and enables evidence-based evaluation of project effectiveness.
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Cross-Cutting Environmental–Economic Goals

The first component establishes cross-cutting environmental and economic goals that guide the overall direction of SULAM projects. Rather than treating environmental protection and economic development as separate or competing objectives, this component emphasises their interdependence. Drawing from Environmental Economics theory, projects are designed to address issues such as resource efficiency, externality reduction, cost savings, and sustainable livelihood opportunities alongside environmental conservation. This approach ensures that SULAM activities move beyond awareness-based initiatives toward interventions that generate tangible socio-economic value for communities while supporting ecological sustainability.

Inclusive and Participatory Planning

Inclusive planning forms the second component of the model and addresses the lack of meaningful community participation identified in the findings. This component advocates for the active involvement of students, lecturers, community leaders, local organisations, and where relevant, vulnerable or marginalised groups, during the project design stage. Participatory planning enhances contextual relevance and community ownership, which are critical for sustaining project outcomes beyond the academic semester. In many cases, communities are not meaningfully involved in the planning and decision-making processes. From a pedagogical perspective, inclusive planning also strengthens students' competencies, in negotiation skills, and ethical awareness, which are key learning outcomes of service-learning.

SDG Mapping and Alignment

The third component focuses on explicit SDG mapping. Each SULAM activity is systematically aligned with relevant SDGs, specific targets, and where feasible, measurable indicators. However, in practice, SDG mapping is often limited to the final outputs rather than the processes undertaken throughout the project. As a result, communities often remain unaware of how the activities relate to the broader SDG framework. This limits SDG awareness and weakens efforts toward localisation, as beneficiaries may participate in project activities without understanding their contribution to global development goals.

For Environmental Economics, this often includes SDG 8 (Decent Work and Economic Growth), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), and SDG 15 (Life on Land). SDG mapping provides conceptual clarity, strengthens coherence with national and global development agendas, and enables students to articulate the sustainability relevance of their projects more rigorously.

Sustainable Outputs and Value Creation

The fourth component emphasises the production of sustainable outputs that deliver long-term value to communities. These outputs may take various forms, including improved resource management practices, environmentally friendly income-generating activities, or sustained behavioural change. By foregrounding economic feasibility and environmental effectiveness, this component directly operationalises Environmental Economics concepts such as cost–benefit analysis and efficiency. Sustainable outputs ensure that SULAM projects contribute meaningfully to community development rather than functioning as short-term academic exercises. For instance, students might collaborate with local women’s groups to develop eco-friendly handicrafts from agricultural or marine waste, thereby linking environmental protection with livelihood enhancement

Measurable Impact and Continuous Feedback

The final component introduces measurable impact and continuous feedback mechanisms to ensure that SULAM initiatives generate tangible and trackable outcomes. This involves establishing clear indicators, baseline assessments, and periodic evaluations to assess changes in environmental practices, income levels, or community behaviour over time. To ensure measurable impact, indicators should be adapted to the local context while remaining aligned with relevant SDG targets. Monitoring and evaluation (M&E) have become critical mechanisms in assessing the effectiveness of university–community engagement in driving social transformation. According to Mandleni (2023), M&E frameworks enable higher education institutions to systematically measure the impact of their initiatives beyond academic outputs, particularly in terms of community development and social change.

Table 1: Practical Community-Level Indicators for Localising SDGs in SULAM Projects

SDG	SDG indicator	localising Indicator	How to Measure
SDG 12: Responsible Consumption & Production	12.5: Substantially reduce waste generation	<ul style="list-style-type: none"> • Number of households separating waste • Number of recyclables collected per month (kg) 	Household checklist; monthly weighing at collection point
SDG 8: Decent Work & Economic Growth	8.3: Promote productive activities and entrepreneurship	<ul style="list-style-type: none"> • Number of people earning income from recycling/eco-products • Average additional monthly income (RM) 	Simple income record; short community survey
SDG 11: Sustainable Communities	11.6 – Reduce environmental impact of settlements	<ul style="list-style-type: none"> • Number of gotong-royong activities per year • Visible reduction of illegal dumping spots 	Activity logbook; before–after photos

Taken together, the five components form an integrated framework that positions SULAM as an experiential sustainability platform within Environmental Economics education. As depicted in Figure 2, the model operates through continuous interaction between learning, community engagement, and sustainability outcomes, thereby supporting SDG localisation,

enhancing student learning, and contributing to inclusive and sustainable community development.

Conclusion

The implementation of SULAM within the Environmental Economics course at UiTM demonstrates the potential of service-learning as an experiential platform for sustainability education. However, analysis of student and community feedback reveals several gaps, including limited SDG integration, insufficient participatory planning, overemphasis on awareness activities, and lack of economic value creation and monitoring. The proposed five-component SULAM–SDG framework addresses these challenges by embedding cross-cutting environmental–economic goals, ensuring inclusive planning, explicitly mapping activities to SDG targets and indicators, producing sustainable outputs, and implementing measurable impact with continuous feedback. By operationalising this model, SULAM projects can achieve dual benefits: enhancing students’ understanding of environmental economics while generating tangible, long-term value for communities. Ultimately, the study underscores the importance of structured, participatory, and SDG-aligned approaches in higher education service-learning initiatives, highlighting their potential to foster responsible graduates, strengthen university and community linkages, and contribute to localised sustainable development outcomes.

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References

- Adam, N. I. A., & Mohamed, M. (2024). The impact of service-learning (SULAM) on civic attitudes and skills of UTHM students. *Online Journal for TVET Practitioners*, 9(2), 124-131.
- Anderson, K. L., Boyd, M., Ariemma Marin, K., & McNamara, K. (2019). Reimagining service-learning: Deepening the impact of this high-impact practice. *Journal of Experiential Education*, 42(3), 229-248.
- Ang, S. M. (2021). Awareness on sustainable development goals among university students in Malaysia. *Asian Journal of Research in Education and Social Sciences*, 3(1), 105-116.
- Assefa, E. A., & Mujtaba, B. G. (2025). Diversity Management for Accelerating the United Nations 2030 and the African Union 2063 Agendas in Education. *Educational Planning*, 32(1), 27-44.
- Ferdiansyah, S., Winarno, A., & Ardhita, Z. (2022). Service learning in Indonesia: developing undergraduate students' leadership during COVID-19 pandemic. *Higher Education, Skills and Work-Based Learning*, 12(5), 884-89
- Hanum, H., Farhan, M. A., Ashikin, A. N., Faiz, M. M., Naqiyah, S. S. D., Rosniza, A. H., & Hasnah, H. (2021, July). From classes into practices: The impacts of implementing SULAM in public University on the students. In *AIP Conference Proceedings* (Vol. 2347, No. 1, p. 020168). AIP Publishing LLC.
- Hashim, R., Aminuddin, Z. M., Saidon, J., & Wang, C. (2025). Sustainable Rural Development and Community Economics for Population Wellbeing in Malaysia. *Environment-Behaviour Proceedings Journal*, 10(31), 317-324
- Huang, R., Liu, D., Tlili, A., Knyazeva, S., Chang, T. W., Zhang, X & Holotescu, C. (2020). Guidance on open educational practices during school closures: Utilizing OER under COVID-19 pandemic in line with UNESCO OER recommendation. *Beijing: Smart Learning Institute of Beijing Normal University*, 1-80
- Laurent, É. (2020). *The new environmental economics: sustainability and justice*. John Wiley & Sons.
- Leal Filho, W., Salvia, A. L., & Eustachio, J. H. P. P. (2023). An overview of the engagement of higher education institutions in the implementation of the UN Sustainable Development Goals. *Journal of Cleaner Production*, 386, 135694.
- Mancini, M. C., Arfini, F., & Guareschi, M. (2022). When higher education meets sustainable development of rural areas: Lessons learned from a community–university partnership. *Social Sciences*, 11(8), 338.
- Mishra, M., Desul, S., Santos, C. A. G., Mishra, S. K., Kamal, A. H. M., Goswami, S., ... & Baral, K. (2024). A bibliometric analysis of sustainable development goals (SDGs): a review of progress, challenges, and opportunities. *Environment, development and sustainability*, 26(5), 11101-11143.
- Mohamad, J., Baharun, N., & Janah Singh, D. S. S. (2024). The implementation of Service-Learning Malaysia-University for Society (SULAM) Programme at Universiti Teknologi MARA Perak Branch, Malaysia/Dr. Junainah Mohamad, Prof. Ts. Dr. Norhayati Baharun and Dr. Daljeet Singh Sedhu. *Creative Practices in Language Learning and Teaching (CPLT)*, 12(2), 49-62.
- Nkonki-Mandleni, B. (2023). *Monitoring and evaluation for university–community impact in driving transformation agenda*. *South African Journal of Higher Education*, 37(1), 151–165. <https://doi.org/10.20853/37-1-5679>
- Robinson, R. S. (2024). Purposive sampling. In *Encyclopedia of quality of life and well-being research* (pp. 5645-5647). Cham: Springer International Publishing

- Sharina Syed-Abdullah, S. I., & Syakirah Ahmad Fairos, N. F. (2026). Top-Down or Bottom-Up Policy Approaches for Integrating Education for Sustainable Development in Higher Education Institutions.
- Syed Azhar, S. N. F., Mohammed Akib, N. A., Sibly, S., & Mohd, S. (2022). Students' attitude and perception towards sustainability: The case of Universiti Sains Malaysia. *Sustainability*, *14*(7), 3925.
- Tajik, O., Golzar, J., & Noor, S. (2025). Purposive sampling. *International Journal of Education & Language Studies*, 1-9.
- Wahab, M. Z. (2024). Evaluating the impact of service-learning Malaysia-University for Society (SULAM) on student learning and community engagement. *International Journal of Academic Research in Progressive Education and Development*, *13*(3), 2080-2096.
- Zakaria, S. A. S., & Singh, A. K. M. (2023, March). Environmental issues and sustainability in Malaysia—A community perspective. In *AIP Conference Proceedings* (Vol. 2484, No. 1, p. 050004)