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Evaluation of Sustainable Development Goals-Based Projects for Sustainable Education and Society

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Abstract

The Sustainable Development Goals (SDGs) aim to create a sustainable future by considering environmental, social, and economic elements from a holistic perspective. Instilling these goals in individuals through education is critically important for increasing awareness of sustainable development and translating this awareness into behavior. This study aims to examine how non-governmental organizations (NGOs) contribute to the implementation of the Sustainable Development Goals (SDGs) through educational projects conducted in collaboration with schools. While the projects involved various educational stakeholders, including students, teachers, school administrators, and parents as project beneficiaries, the qualitative data for this study were collected through semi-structured interviews with representatives of 17 NGOs responsible for planning and implementing these projects. The interview data were analyzed using inductive qualitative content analysis. The findings show that SDG projects significantly contribute to developing environmental awareness, sustainable thinking, and responsible behavior in students. However, the success of the projects varies depending on the level of stakeholder participation in the educational environment, i.e., the active involvement and collaboration of relevant individuals in the process. The research findings indicate that strengthening stakeholder participation and more regular integration of sustainability-themed projects into educational curricula are necessary to promote the dissemination of sustainable development goals through education.

Keywords: sustainable development goals; sustainable education; stakeholder engagement; society

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Academic Editors: Mónica Martínez-Gómez, César Berna-Escriche, Víctor Yeste and Mª Ángeles Alcaide González

Received: 21 July 2026
Revised: 22 August 2026
Accepted: 31 August 2026
Published: 7 September 2026

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1. Introduction

Sustainable development is considered important because it requires both social and ecological perspectives and seeks to reflect contemporary practices into the future. Sustainable Development Goals (SDGs) aim to protect the world without causing a decline in the well-being of individuals by examining the situation from a broad perspective [1]. The concept of sustainable development, which is not limited to developed countries, involves the protection of natural resources while economic development continues [2].

Individuals with an awareness of sustainable development are expected to exhibit environmentally respectful and conscious consumption attitudes. It is believed that the development and transformation of sustainable environmental awareness into behavior takes place in classroom settings. It is believed that by emphasizing sustainability and sustainable development in the curriculum, this awareness can be fostered in every individual [3].

Sustainable development is considered important because it requires both social and ecological perspectives and seeks to reflect contemporary practices into the future. In this context, it can be said that sustainable development means protecting the capacity of ecological systems, supporting the preservation and improvement of the quality of social systems, and contributing to development [4]. The aim is to cultivate individuals who are environmentally conscious, act with future generations in mind, and possess well-developed scientific thinking skills. Accordingly, scientific process skills are included in textbooks and curricula [5].

At the United Nations Conference on Environment and Development held in Rio de Janeiro in 1992, it was emphasized that education is one of the most important key factors for sustainable development and that the concept of "education for sustainable development" is needed for a safe and sustainable future. It is known that education plays a significant role in building the capacity of society to assess some of the most important problems it faces in order to achieve a state of sustainable development [3].

Within the scope of sustainable development, raising sensitivity and awareness in individuals is only possible through education [6]. Sustainable development education encompasses almost all topics included within the concept of sustainable development, such as climate change, biodiversity, poverty reduction, and sustainable consumption [3]. It can be said that through education, individuals and societies are able to make more informed decisions, taking into account the Sustainable Development Goals [7]. It is considered important for students to receive a good education so that they develop environmental awareness and research skills, become sensitive to their environment, and are curious individuals. Effective implementation of SDG-oriented educational projects also depends on stakeholder engagement, as the perspectives of teachers, administrators, students, and other educational actors play a crucial role in shaping sustainable practices.

The international literature demonstrates substantial progress in research concerning Education for Sustainable Development, sustainability competencies, project-based learning, and stakeholder collaboration. However, three important research gaps remain. First, most empirical studies examine individual Sustainable Development Goals or isolated sustainability interventions rather than investigating the integrated implementation of all seventeen SDGs within a single educational programme. Second, although stakeholder collaboration is widely recognized as a critical success factor for sustainable development, relatively few studies have explored how long-term partnerships among schools, municipalities, non-governmental organizations, healthcare institutions, private-sector organizations, and community members collectively support comprehensive SDG implementation. Third, existing research has focused predominantly on secondary schools and higher education, leaving primary education comparatively underrepresented despite its critical role in shaping lifelong sustainability values, attitudes, and behaviours. To address these gaps, the present study investigates a whole-school sustainability programme implemented in a primary school in Northern Cyprus through seventeen interdisciplinary projects corresponding to all seventeen Sustainable Development Goals. By evaluating the educational, institutional, and community outcomes of this comprehensive implementation model, the study contributes new empirical evidence to the international literature on Education for Sustainable Development and proposes an Integrated SDG Education Model that may inform future research, educational practice, and sustainability policy. The present study adopts the Whole-School Approach (WSA) as its guiding Education for Sustainable Development framework. The whole-school approach (WSA) conceptualizes sustainability education as a systemic process that extends beyond classroom instruction and integrates curriculum and pedagogy, school leadership and management, institutional practices, learner participation, and engagement with families, communities, and external

partners [8]. This framework is particularly appropriate for the present study because the 17 SDG-oriented projects were implemented within a common primary school setting through collaboration with NGOs and other external stakeholders. Accordingly, the projects are examined not as isolated educational activities but as interconnected components of a whole-school sustainability process.

Recent sustainability research has also emphasized the importance of examining the interaction between ecological and socio-economic dimensions of sustainability rather than treating environmental outcomes in isolation [9]. Such perspectives further support the need for integrated approaches to sustainability, although they have generally been developed at regional or macro levels rather than within primary school settings. The present study addresses this contextual gap by examining the implementation of all 17 SDGs within a single primary school.

The aim of this research is to examine and evaluate the implementation processes and effects of Sustainable Development Goals (SDGs) projects carried out in a primary school, based primarily on the perspectives of NGO representatives who were directly involved in the planning, implementation, or coordination of these projects. The research also aims to examine the contributions of SDG projects in education to the development of students' social responsibility, environmental awareness, social sensitivity, and sustainable behavior, and to develop recommendations for the more effective, inclusive, and sustainable implementation of SDG projects in educational institutions.

The primary purpose of this study is to examine the educational, institutional, and community outcomes of implementing the Sustainable Development Goals (SDGs) through a whole-school approach in a primary education setting. Specifically, the study investigates how seventeen interdisciplinary projects corresponding to each of the seventeen SDGs contributed to students' sustainability competencies, environmental awareness, social responsibility, stakeholder collaboration, and institutional development. Unlike many previous studies that have focused on individual sustainability initiatives or specific SDGs, this research adopts a comprehensive perspective by evaluating the simultaneous implementation of all seventeen goals within a single educational programme. The study therefore seeks to understand sustainability education not as a collection of isolated classroom activities but as a systemic process integrating curriculum, school leadership, community partnerships, and experiential learning. A further objective is to explore how collaboration among teachers, school administrators, municipalities, non-governmental organizations, private-sector partners, healthcare professionals, and community volunteers influenced the implementation process and supported educational outcomes. By examining the interaction between institutional capacity and stakeholder engagement, the study provides a broader understanding of how schools can function as local sustainability hubs that contribute to both educational improvement and community development. Ultimately, this research aims to generate empirical evidence that informs educational policy and practice while contributing to the international literature on Education for Sustainable Development (ESD). The findings are expected to provide practical guidance for schools seeking to integrate the SDGs into everyday educational practice through interdisciplinary and community-based approaches. To achieve the objectives of the study and address the identified research gaps, the following research questions were formulated:

1. How are SDG-oriented educational projects implemented through collaborations between educational institutions and NGOs?
2. How do NGO representatives perceive and evaluate the implementation and outcomes of SDG-oriented projects?

3. What educational and social contributions do SDG-oriented projects provide for sustainable development?
4. What barriers and enabling factors influence the effective implementation and long-term sustainability of SDG-oriented educational projects?

2. Sustainable Development Goals

Conference on Environment and Development, held in Rio de Janeiro in 1992, saw participation from 178 countries [10]. The document "Agenda 21" was adopted at this conference [11]. The Millennium Development Goals, which were valid until 2015, were adopted in 2000. In 2002, the Johannesburg summit was held, where the implementation of the decisions made at the Rio Conference was critically examined [10]. With the expiration of the Millennium Development Goals in 2015, the goals expected to be achieved by 2030 were replaced by the Sustainable Development Goals (SDGs), encompassing different areas such as ending hunger and technological advancements [12].

The Sustainable Development Goals were adopted by the United Nations. The UN Development Programme (UNDP) has identified 17 Sustainable Development Goals and 169 sub-goals. The fundamental aim of the program is to recognize that strategies that end poverty and other forms of deprivation, combat climate change, protect our water resources and forests, improve health and education, reduce inequality, and support economic growth must go hand in hand [13] (Figure 1).



Figure 1. UN Sustainable Development goals [14].

The aim of this research is to examine and evaluate the implementation processes and impacts of Sustainable Development Goal (SDG) projects carried out in educational institutions, based on the views of education stakeholders. This study aims to reveal the perceptions, experiences, and evaluations of teachers, school administrators, students, parents, and relevant stakeholders regarding SDG projects.

The research also aims to determine the contributions of SDG projects in education to the development of students' social responsibility, environmental awareness, social sensitivity, and sustainable behavior; and to analyze the strengths, limitations, and structural obstacles encountered during the implementation process. Based on the findings, one of the main objectives of this study is to develop recommendations for implementing SDG projects in educational institutions in a more effective, inclusive, and sustainable way.

3. Education for Sustainable Development

Believing that success in achieving sustainable development goals can be achieved through education, Boeve-de Pauw et al. [15] define education for sustainable development as every individual with the right to education having access to knowledge of sustainable living. Sustainable development and initiatives in education aimed at addressing climate change and protecting biodiversity are among the goals [16].

Initially encompassing behaviors such as using only what is needed, avoiding waste by consuming food in appropriate amounts, and protecting the environment, this current concept now covers every aspect of life, including turning off lights unnecessarily, using solar energy, using resilient crops in agriculture, acting with recycling awareness, and keeping up with and using developing technologies [17]. While this gives the impression that awareness of sustainable development exists at every age, Labog [18] believes that sustainability can be contributed to by establishing connections between institutions. Education aims to foster environmentally protective behaviors and environmental awareness in individuals.

When evaluating the aims of education for sustainable development, they are identified as: developing and diversifying critical thinking and worldview; acquiring new knowledge and skills that will contribute to the sustainable development of society in all areas; supporting and developing moral values; and teaching healthy living and sustainable consumption concepts [19].

Education for sustainable development includes all people of all ages [3]. In this context, it is important that all educational institutions implement education based on the concept of lifelong learning. Although different education systems have different aspects and tasks related to education and training for sustainable development, all aspects aim for students to internalize practices and behaviors that socially support the Sustainable Development Goals [20].

Studies on SDG-Based Educational Projects

Stakeholder collaboration has become a central principle within sustainable development because contemporary environmental and social challenges cannot be addressed effectively by individual institutions acting independently. The Sustainable Development Goals themselves explicitly recognise partnership and collaborative governance as essential mechanisms for achieving sustainable development, particularly through SDG 17 (Partnerships for the Goals).

Within educational research, stakeholder collaboration refers to the systematic cooperation among schools, families, local governments, non-governmental organisations, universities, healthcare institutions, private-sector organisations, and community groups to improve educational quality and student development. Such partnerships extend learning beyond classroom boundaries by connecting formal education with authentic community experiences.

Epstein's [21] framework for school–family–community partnerships remains one of the most influential theoretical models explaining collaborative educational governance. According to Epstein, schools achieve stronger educational outcomes when parents, teachers, community organisations, and public institutions work collectively toward shared educational objectives. More recent sustainability research has expanded this perspective by incorporating environmental organisations, municipalities, businesses, and civil society into educational partnerships supporting sustainable development.

Bryson et al. [22] argue that cross-sector collaboration enhances institutional capacity by combining complementary resources, expertise, and organisational networks. Within sustainability education, such collaboration enables schools to provide students with authentic learning experiences that would be difficult to achieve through classroom instruction alone. Environmental field studies, health campaigns, biodiversity conservation projects, recycling programmes, social responsibility initiatives, and public awareness campaigns all benefit from cooperation among multiple stakeholders.

Empirical studies further demonstrate that stakeholder partnerships strengthen students' civic engagement, leadership skills, and community participation. Students participating in collaborative sustainability projects develop greater appreciation of democratic decision-making, collective responsibility, and social inclusion. At the institutional level, partnerships contribute to organisational learning, innovation, and long-term sustainability by strengthening schools' relationships with their surrounding communities.

The table below provides a comparative overview of key studies on the implementation of Sustainable Development Goals (SDGs) in education, considering their methodologies, the SDGs they focus on, and the research gaps they leave in the literature. A review of the literature reveals that the majority of studies concentrate on sustainability competencies, environmental education, policy development, and higher education applications. However, it is noteworthy that empirical research that comprehensively evaluates the holistic implementation of all SDGs at the school level, involving multiple stakeholders such as school administration, teachers, students, families, local governments, and civil society organizations, is quite limited (Table 1).

This comparison shows that the existing literature focuses primarily on sustainability competencies, environmental education, and policy development; however, studies examining the holistic implementation of all 17 SDGs at the school level and multi-stakeholder governance processes are quite limited. Qualitative case studies at the primary school level that examine the implementation of multiple SDG-oriented projects through collaboration with civil society organizations and other educational stakeholders remain limited. Therefore, this research offers a unique empirical contribution to the literature by revealing how this approach contributes to the implementation of all SDGs in schools in Northern Cyprus.

Table 1. Summary of Studies on SDG-Based Educational Projects.

Author(s)	Country	SDGs	Educational Level	Method	Main Findings	Research Gap
Leal Filho et al. [23]	International	Multiple SDGs	Higher Education	Review	Institutional commitment strengthens SDG implementation.	Limited evidence from primary and secondary schools.
Lozano et al. [24]	International	SDG 4	Higher Education	Conceptual	Sustainability competencies should be embedded across curricula.	Limited practical validation in schools.
Kioupi & Voulvoulis [25]	UK	Multiple SDGs	Schools & Universities	Case Studies	Systems thinking and ESD facilitate SDG transitions.	Small number of case studies. (Frontiers)
Rieckmann [26]	Germany	SDG 4	General	Conceptual	Sustainability competencies underpin ESD.	Limited application in school settings.
Ardoin et al. [27]	USA	SDGs 4, 13	Primary & Secondary	Literature Review	Experiential learning improves environmental literacy.	Limited stakeholder participation.
Sánchez et al. [28]	International	SDG 4	General	Systematic Literature Review	Sustainability literacy and environmental literacy are complementary competencies for ESD.	Conceptual heterogeneity across studies.
Hu & Mou, [29]	2025	China	SDGs 4, 13, 15	Systematic Review	Outdoor education consistently improves sustainability competencies and environmental responsibility.	Most studies conducted in higher education.
Bryson et al. [22]	USA	SDG 17	General	Conceptual	Cross-sector collaboration improves governance.	Not education-specific.
Epstein [21]	USA	SDG 17	Schools	Framework	School–community partnerships improve educational outcomes.	General education perspective only.
Wals, Bjønness, Sinnes, & Eikeland (Eds.) [8]	International	SDGs 4, 13, 17 (Whole-School Approach supporting all SDGs)	Preschool, Primary, Secondary & Higher Education	Edited Book/International Case Studies/Conceptual and Empirical Chapters	Demonstrates that a Whole-School Approach (WSA) integrates curriculum, pedagogy, school leadership, campus operations, community partnerships, and learner participation to foster Education for Sustainable Development (ESD).	Although the book presents diverse international cases, it does not provide an in-depth empirical evaluation of the implementation of all 17 SDGs within a single primary school through comprehensive stakeholder collaboration.
Hallinger & Nguyen [30]	Thailand & Vietnam	SDG 4 (Education for Sustainable Development—ESD)	K-12	Bibliometric Review (Science Mapping, PRISMA)	Analyzed 1842 Scopus-indexed publications (1990–2018) on K–12 Education for Sustainable Development. The study found a rapid increase in ESD research over the last decade	Developed primarily for K-12 education.

4. Materials and Methods

This study adopted a qualitative research design using qualitative content analysis to explore the experiences and perceptions of representatives from non-governmental organizations regarding the implementation of Sustainable Development Goal (SDG) projects in educational settings. Rather than examining each project as an individual case, the study sought to identify common themes, patterns, and shared experiences across projects implemented by different NGOs. The whole-school approach was used as the guiding ESD framework for interpreting the scope of the projects and their educational, institutional, and community dimensions. Institutional decoupling was subsequently used as an explanatory lens in the discussion to interpret the observed gap between project-level implementation and broader institutional integration. The selected projects were chosen because they represent all Sustainable Development Goal (SDG)-focused initiatives implemented at the participating primary school during the study period. The school was chosen as the study environment because it provided a unique opportunity to examine the simultaneous implementation of all 17 SDGs within a single primary school context and through collaboration with external organizations.

Therefore, qualitative content analysis was considered the most appropriate methodological approach for interpreting participants' perspectives. The research considers 17 NGO-led projects, each corresponding to a different SDG, as "cases." This design allowed for a detailed analysis of how each SDG is implemented in the field and its educational contributions. The qualitative analysis was conducted inductively, allowing analytical categories and themes to emerge from the interview data rather than being predetermined by a theoretical framework. A theoretical perspective was subsequently used in the discussion section to interpret the relationships identified among the themes.

The participants comprised representatives from 17 different NGOs who played an active role in the projects carried out. Purposive sampling and a maximum diversity approach were adopted in participant selection; organizations working in diverse fields such as sports clubs, environmental and climate-focused NGOs, youth associations, social solidarity organizations, and cultural associations were included in the study. The study comprised 17 independent SDG-oriented educational projects implemented in collaboration with different non-governmental organizations (NGOs). Because each project addressed a different Sustainable Development Goal and targeted different beneficiary groups, participant characteristics varied across projects. The projects involved students, teachers, school administrators, parents, and NGO representatives. Student participants differed in terms of number, gender distribution, and age depending on the nature of each project, while one representative from each collaborating NGO participated in the semi-structured interviews. Detailed demographic information regarding the project participants and interviewees is presented in Tables 2 and 3. For the qualitative interview component, one representative from each of the 17 collaborating organizations was interviewed. Thus, the interview sample consisted of 17 participants. Other individuals reported in Table 2, including NGO representatives, teachers, students, and parents, refer to participants involved in the implementation of the projects and should not be interpreted as part of the interview sample.

The study comprised 17 independent projects implemented within the framework of the United Nations Sustainable Development Goals (SDGs). Each project addressed a different SDG and was conducted in collaboration with one or more non-governmental organizations (NGOs), resulting in variations in participant profiles according to the objectives and target groups of each initiative. As presented in Table 2, the projects involved different numbers of students, teachers, NGO representatives, and, where applicable, parents. Overall, the 17 projects reached 1807 participants, including 1502 students, 239 teachers,

34 NGO representatives, and 27 parents, demonstrating the broad stakeholder engagement achieved through the project-based implementation of the SDGs.

Table 2. Characteristics of the SDG Projects and Participants.

SDG	Project	Students	Teachers	NGO Representatives	Parents	Total Participants
SDG1	Uniform Support	46	3	2	-	51
SDG2	Healthy Living	85	4	1	-	90
SDG3	Awareness Walk	120	6	3	18	147
SDG4	Book Donation	30	6	2	-	38
SDG5	Women's Leadership Seminar	25	1	2	-	28
SDG6	Awareness of access to clean water	60	4	2	-	66
SDG7	Increasing the use of clean energy	-	40	5	-	45
SDG8	Supporting inclusive employment.	-	-	4	-	4
SDG9	Encouraging innovation	85	4	1	-	90
SDG10	Reducing inequalities	22	4	4	-	30
SDG11	Supporting sustainable communities	320	3	1	-	324
SDG12	To increase responsible consumption and production.	-	40	2	-	42
SDG13	Raising climate awareness	320	40	5	-	365
SDG14	Protecting marine life	60	4	2	-	66
SDG15	Supporting afforestation	320	40	2	-	362
SDG16	Social justice	9	40	1	9	59
SDG17	Strengthening partnerships	1502	239	34	27	1807

Table 3. Demographic characteristics of Interview Participants.

Participant Code	Organization Type	SDG Project	Position	Gender	Age	Experience of Year
P1	Women's NGO	SDG1	President	F	34	5
P2	Sports Association	SDG 2	Manager	F	41	10
P3	Health Association	SDG 3	Manager	F	70	40
P4	Women's Association	SDG 4	President	F	75	44
P5	Sports Association	SDG 5	Manager	F	41	10
P6	Education	SDG 6	Teacher	F	32	8
P7	Education	SDG 7	Manager	M	56	22
P8	Women's Association	SDG 8	President	F	72	30
P9	Sports Association	SDG 9	Manager	F	41	10
P10	Financial Institution	SDG10	Manager	M	52	28
P11	Business	SDG11	Manager	M	63	40
P12	Municipality	SDG12	Manager	F	52	20
P13	Women's Association	SDG13	Member	F	45	10
P14	Education	SDG14	Teacher	F	26	4
P15	Business	SDG15	Manager	M	75	40
P16	Municipality	SDG16	Manager	F	40	18
P17	Donor/NGO Representatives	SDG17	Coordinators	All	34–75	5–44

To evaluate the implementation and outcomes of the SDG projects, semi-structured interviews were conducted with one representative from each collaborating organization. As shown in Table 2, the interview participants represented the external organizations and stakeholder groups involved in the 17 projects, including women's associations, sports associations, educational organizations, municipalities, businesses, health-related organizations, financial institutions, and donor organizations. One representative associated with each project participated in the semi-structured interviews. The participants occupied different professional positions such as presidents, managers, teachers, members, and coordinators. Their ages ranged from 26 to 75 years, while their professional experience varied between 4 and 44 years, ensuring that the evaluation reflected the perspectives of experienced stakeholders who had actively participated in planning, implementing, or coordinating the SDG projects. The interview participants were selected because of their direct involvement in, and knowledge of, the planning, implementation, or coordination of the respective SDG projects.

The participants of this study were representatives of 17 non-governmental organizations that had developed and implemented educational projects addressing the Sustainable Development Goals (SDGs). Each participating NGO was represented by one individual who had actively coordinated or managed the relevant project and possessed comprehensive knowledge of its planning, implementation, and outcomes.

Although the educational projects involved a wide range of stakeholders (including students, teachers, school administrators, and parents), these groups participated in the projects as beneficiaries rather than as interview participants. Therefore, the qualitative data analyzed in this study were obtained exclusively from interviews conducted with NGO representatives.

The interview questions focused on the NGOs' experiences in planning, implementing, and evaluating SDG-related educational projects, as well as their perceptions regarding stakeholder participation, project outcomes, and implementation challenges. The findings therefore reflect the perspectives of NGO representatives concerning projects implemented with different educational stakeholder groups. Two types of qualitative data were used in the research: (1) Applied Project Processes; Data were obtained through observations of the implementation phases of the projects carried out by NGOs, activity outputs, project flow and short field notes made with the participants during the implementation. (2) Semi-Structured Interviews; Semi-structured one-on-one interviews were conducted with a representative from each NGO after the projects were completed. The discussions covered themes such as project implementation methods, the cause-and-effect relationship, and evaluation from the perspective of the SDGs. The interviews lasted an average of 20–30 min and were transcribed. In addition to the semi-structured interviews, the first author observed the implementation phases of the projects and recorded field notes regarding project activities, participant engagement, stakeholder interactions, and activity outputs. Observations were conducted during the implementation of the projects and covered 16 observation sessions, with approximately 1–1.5 h devoted to each session. The first author acted as a non-participant observer and did not intervene in the implementation process. These observations were used as complementary contextual evidence and were triangulated with the project outputs and interview data.

All data was analyzed using content analysis methodology. The two data sources served complementary purposes in the analysis. The applied project-process data were used to document the concrete activities and stated or observed project outcomes, whereas the semi-structured interviews were used to examine participants' perceptions and experiences regarding implementation, participation, impact, and institutional practices. These

two sources were compared during interpretation to identify areas of convergence and divergence between project-level evidence and participants' opinions.

This study employed content analysis methods to reveal fundamental concepts and the relationships between them. The interview transcripts were read repeatedly to identify meaningful units, which were subsequently coded and grouped into categories and themes based on their conceptual similarities. The coding process followed an inductive approach. Meaningful statements identified in the transcripts were initially coded according to their content. Codes that addressed similar issues or reflected related meanings were then compared and grouped into broader categories. Through this process, the categories were progressively organized into five overarching themes: (1) Awareness and Consciousness, (2) Implementation and Participation, (3) Contribution and Responsibility, (4) Impact and Monitoring, and (5) Social Contribution. The themes were therefore derived from recurring patterns in the interview data rather than imposed deductively from a theoretical framework. The analytical procedure was informed by the principles of qualitative content analysis described by Forman and Damschroder [31].

The coding and thematic analyses were conducted by the third author. No second independent coder was involved in the coding process; therefore, formal inter-coder reliability or inter-coder agreement statistics were not calculated. To enhance analytical consistency, the transcripts were reviewed repeatedly, codes were compared across interviews, and the emerging categories and themes were checked against the original participant statements throughout the analysis. Particular attention was also given to divergent and contradictory statements to avoid interpreting the findings solely according to the dominant response pattern. The final themes were retained only when they were supported by recurring patterns in the interview data.

To enhance the clarity of the findings, the results are presented using frequencies (n), indicating the number of participants who expressed a particular opinion or referred to a specific category. Each participant was counted only once within a category, even if the same issue was mentioned multiple times during the interview. These frequencies are provided solely to illustrate the relative prevalence of themes identified in the qualitative data. Because the interview sample consisted of 17 participants, percentages are reported together with the underlying participant counts (n/17) where applicable. These percentages are used descriptively to indicate the relative prevalence of views within the interview sample and should not be interpreted as statistical estimates or as evidence of population-level prevalence.

To ensure the trustworthiness of the qualitative findings, the study followed the criteria proposed by Lincoln and Guba [32]. Credibility was enhanced through repeated reading of the interview transcripts and continuous comparison between the original data, the generated codes, and the emerging themes throughout the analysis. Dependability was strengthened by following a systematic and transparent coding procedure during the content analysis. As the coding was conducted by a single researcher, no inter-coder reliability coefficient was calculated. Instead, analytical consistency was supported through repeated examination of the transcripts and continuous checking of the codes and themes against the original data. Confirmability was supported by maintaining a transparent analytical process that enabled clear links between participants' statements, codes, categories, and themes. Transferability was addressed by providing detailed descriptions of the research context, participants, and data collection procedures to allow readers to evaluate the applicability of the findings in similar contexts.

5. Results

The research findings are presented below under two headings: findings obtained from the project processes and results conducted in an applied manner, and findings obtained from semi-structured interviews.

Based on the data obtained, it is understood that the Sustainable Development Goal (SDG) projects implemented in educational institutions exhibit a multifaceted and inclusive structure, taking into account the views of the stakeholders. The implementation reviews conducted using the table show that the projects include not only social issues such as combating poverty, eradicating hunger, health and quality of life, quality education, and gender equality, but also environmental sustainability issues such as clean water and energy use, climate action, biodiversity conservation, and responsible production and consumption. The findings show that fundraising activities, awareness seminars, observation tours, and school-based practices positively influence students' understanding of social responsibility, environmental awareness, and ability to exhibit sustainable behavior. Furthermore, partnerships established with local governments, NGOs, and private sector representatives enhance the feasibility and impact of projects; and projects become more prominent and sustainable when stakeholder participation is high. In this context, the table reveals that SDG projects not only raise awareness in educational settings but also provide tangible and measurable benefits to students and other educational stakeholders.

Theme 1. Awareness and s and Consciousness

The first theme explored stakeholders' awareness and understanding of the Sustainable Development Goals (SDGs). As presented in Table 2, 9 of the participants reported having adequate general knowledge of the SDGs, while an equal proportion recognized a strong relationship between SDG principles and institutional activities. These findings indicate that awareness of sustainability concepts has become relatively widespread among the participating organizations. However, only 7 of the respondents believed that SDG principles were reflected in their daily decision-making processes, suggesting that awareness does not always translate into sustainable behaviors.

The findings reveal a discrepancy between cognitive awareness and practical implementation. Although participants demonstrated a sound understanding of sustainability concepts, the behavioral integration of SDGs into routine institutional practices remained limited. This suggests that awareness alone is insufficient for achieving sustainable transformation unless supported by continuous institutional commitment, capacity building, and practical implementation strategies.

Theme 2. Implementation and Participation

The second theme focused on the implementation of SDG projects and stakeholder participation. Only 6 of the participants reported that SDG initiatives were actively implemented within their institutions, while participation in sustainability-related seminars and training activities remained relatively low (4). Furthermore, only 5 believed that institutional policies were fully aligned with the SDGs. These findings suggest that sustainability initiatives are primarily implemented as individual projects rather than integrated into institutional strategies. Limited participation in professional development activities may also reduce stakeholders' capacity to implement SDG-related practices effectively.

Theme 3. Contribution and Responsibility

This theme examined stakeholders' perceptions of their individual and institutional contributions to the Sustainable Development Goals. Only 5 of the participants believed that they actively contributed to SDG implementation within their areas of responsibility, while 4 considered innovative thinking related to sustainability to be well developed. Similarly,

only 5 reported that SDGs had been integrated into institutional strategic plans. These findings indicate that although stakeholders acknowledge the importance of sustainability, uncertainty regarding individual responsibilities and limited institutional support reduce their capacity to contribute effectively. Furthermore, weak integration of SDGs into strategic planning may hinder long-term sustainability initiatives.

Theme 4. Impact and Monitoring

The fourth theme investigated the monitoring and evaluation of SDG projects. Only 4 of the participants believed that performance indicators were systematically monitored, while 6 considered project outcomes to be shared transparently with stakeholders. Similarly, 6 perceived that SDG projects contributed moderately to institutional sustainability. These findings suggest that monitoring and evaluation remain among the weakest aspects of SDG implementation. Although stakeholders generally perceived the projects as beneficial, limited assessment and reporting mechanisms reduce opportunities for organisational learning and continuous improvement.

Theme 5. Social Contribution

Conversely, a more optimistic picture develops about social contribution: 10 participants claim that cooperation with local stakeholders is maintained, 60% think that SDG activities increase public awareness, and 11 of them believe that social responsibility projects aimed at underprivileged groups are strong. These results show that although SDG projects lack strong institutional monitoring and evaluation, they have a great influence in terms of social responsibility and social impact.

A cross-case comparison of the 17 projects revealed differences in project scale, stakeholder participation, activity type, and outcomes. While social, awareness-oriented, and environmental projects generally produced more visible outcomes, institutional and partnership-oriented projects depended more strongly on sustained collaboration and organizational capacity. Overall, the projects shared a common whole-school context but differed in stakeholder reach, implementation mechanisms, and outcome visibility.

Negative Cases and Divergent Views

Although the majority of participants expressed relatively positive views regarding the relevance of the SDGs, two participants provided explicitly divergent responses that warrant particular attention. P3 stated that the SDGs were not effective in influencing daily decision-making, while P7 expressed limited understanding of the SDGs. These responses indicate that awareness and perceived relevance of the SDGs were not uniform across the sample. The two participants also differed in terms of organizational context, professional role, age, and experience. P3 was a 70-year-old female manager working in a health-related association, with 40 years of professional experience, whereas P7 was a 56-year-old male manager working in an educational organization, with 22 years of experience. Therefore, the two negative cases do not reveal a common demographic or organizational profile that could adequately explain their divergent views. Instead, they suggest that the translation of SDG awareness into daily decision-making may depend on contextual and organizational conditions that are not fully captured by demographic characteristics. These cases were retained in the analysis rather than treated as exceptions, as they provide an important qualification to the dominant pattern identified in the data. The divergent responses of P3 and P7 also support the interpretation that SDG awareness and institutional integration should not be assumed to develop uniformly. Their responses demonstrate that the presence of SDG-oriented projects within an organization does not necessarily mean that all organizational actors perceive these goals as relevant to their everyday decisions. These negative cases therefore reinforce the distinction between

the existence of SDG-related activities and the extent to which SDG principles become embedded in organizational practices.

6. Discussion

The findings of this study can be interpreted through the concept of institutional decoupling, which provides an explanatory mechanism for understanding the gap between organizational awareness and substantive implementation. Institutional theory suggests that organizations may adopt formally valued structures, practices, and commitments in response to institutional expectations and legitimacy pressures, while these formal commitments may not always be fully integrated into ongoing organizational activities [33]. Meyer and Rowan [33] conceptualize this separation as decoupling between formal structures and actual organizational activities. In the context of sustainability, Snelson-Powell et al. [34] similarly demonstrate that organizations may express strong sustainability commitments while these commitments remain only partially coupled with organizational practices. This perspective provides a useful framework for interpreting the present findings because the study identifies relatively strong awareness of the SDGs alongside weaker evidence of institutional integration, strategic planning, and systematic monitoring. The concept of decoupling should therefore be understood in this study as a partial separation between project-level implementation and broader institutional integration rather than as evidence that the SDG activities were merely symbolic. The projects examined in this study involved concrete activities and produced observable or stated outcomes, as demonstrated in Table 4. However, the interview findings suggest that these activities were not always accompanied by corresponding changes in institutional policies, strategic planning, routine decision-making, or monitoring systems. In this sense, the findings point to a form of partial decoupling in which substantive outcomes are achieved at the project level while the institutional structures required to sustain and systematically monitor these practices remain comparatively weak. This partial decoupling should also be considered in relation to the local context in which the projects were implemented. As the study was conducted in a single primary school in Northern Cyprus, institutional awareness and project implementation may be influenced by context-specific factors, including available resources, institutional priorities, policy conditions, and local stakeholder relationships. However, these contextual factors were not directly examined in the present study and therefore cannot be treated as empirical explanations. They should instead be considered as contextual conditions that may shape the extent to which SDG awareness is translated into systematic institutional practice.

Although SDG 17 was represented by a specific project focused on strengthening partnerships, partnership should not be understood in this study as a characteristic limited to SDG 17. Rather, collaboration was a cross-cutting feature of the implementation of the 17 projects. Each project was implemented through collaboration between the school and one or more external organizations, while the composition and intensity of stakeholder involvement varied according to the objectives and target groups of the projects. The project-level data demonstrate participation by NGOs, teachers, students, parents, municipalities, businesses, and other community actors across different initiatives. Interview findings further indicate that local collaboration, information sharing, and stakeholder engagement were among the most frequently reported dimensions of social contribution. Thus, SDG 17 functioned both as an explicit project objective and as an enabling mechanism underlying the implementation of the other SDGs.

Table 4. Applied NGO Project Findings.

SDG	Aim	Relevant SDG Target	Application	Conclusion
SDG 1	Ending poverty, fair distribution of wealth.	Target 1.4—Equal rights to economic resources and access to basic services	Uniform support for 46 students in need.	Students' access to basic needs has increased.
SDG 2	To end hunger and promote healthy eating.	Target 2.1—Access to safe, nutritious and sufficient food	Healthy Living Seminar	Awareness of healthy eating has been created.
SDG 3	Increasing awareness of early diagnosis.	Target 3.4—Promote mental health and well-being	Breast Cancer Awareness Walk	Awareness of early diagnosis has strengthened.
SDG 4	Increasing access to quality education	Target 4.7—Education for sustainable development and global citizenship	English book donation	Students' access to resources has improved.
SDG 5	Supporting women's leadership	Target 5.1—End discrimination against women and girls	Women's Leadership Seminar	Leadership awareness developed among the female students.
SDG 6	Awareness of access to clean water	Target 6.3—Improve water quality and reduce pollution	Trip to Geçitköy Dam	Water conservation awareness has increased.
SDG 7	Increasing the use of clean energy	Target 7.3—Improve energy efficiency	Donate low-energy air conditioners.	Energy savings were achieved.
SDG 8	Supporting inclusive employment.	Target 8.6—Reduce the proportion of youth not in employment, education or training	Wheelchair donation	Accessibility conditions have improved.
SDG 9	Encouraging innovation	Target 9.5—Enhance research and technological capabilities	Technological tools seminar	Technology awareness has increased.
SDG 10	Reducing inequalities	Target 10.2—Promote social, economic and political inclusion	Sports shoes provided to 22 students.	Equal access to sports facilities was provided.
SDG 11	Supporting sustainable communities	Target 11.7—Inclusive and accessible public spaces	Donation of 10 basketballs	Access to sporting facilities has improved.
SDG 12	To increase responsible consumption and production.	Target 12.5—Reduce waste generation through prevention, reduction, recycling and reuse	Recycling glass waste	Awareness of waste sorting has improved.
SDG 13	Raising climate awareness	Target 13.3—Improve education and awareness on climate change	Placement of bird nests	Nature conservation awareness has increased.
SDG 14	Protecting marine life	Target 14.1—Reduce marine pollution	Sea turtle observation trip	Biodiversity awareness has increased.
SDG 15	Supporting afforestation	Target 15.2—Promote sustainable forest management	Olive sapling planting	Their love for nature and sense of responsibility increased.
SDG 16	Promote social justice by supporting vulnerable children and families residing in a women's shelter and fostering community solidarity.	Target 16.2–Protect children and promote inclusive participation	Donation of coats and boots to children living in a women's shelter	Enhanced awareness of social justice, empathy, community solidarity, and support for vulnerable groups.
SDG 17	Strengthening partnerships	Target 17.17—Encourage effective partnerships	NGO collaborations	Organizational solidarity has strengthened.

The findings indicate that educational stakeholders generally possess a high level of awareness regarding the Sustainable Development Goals (SDGs), particularly in terms of understanding the relationship between SDGs and institutional activities. However, this awareness is not consistently translated into everyday practices, as behavioral integration and participation in sustainability-related training remain relatively limited. Similarly, institutional policies were perceived to be only partially aligned with the SDGs, suggesting that sustainability initiatives continue to be implemented primarily as project-based activities rather than as an integral part of institutional culture. These findings are consistent with recent research emphasizing that Education for Sustainable Development (ESD) has frequently been introduced as an "add-on" rather than being systematically embedded within educational policies, curricula, and educator training. Holst et al. [35] similarly reported that although the implementation of SDG 4.7 has progressed, educator training and institutional integration remain among the weakest dimensions of ESD implementation. Likewise, Suklun and Bengü [36] argued that higher education institutions have increased awareness of the SDGs; nevertheless, stronger collaboration among universities, NGOs, and external stakeholders is still required to translate awareness into sustainable institutional practices. This awareness–implementation gap is also consistent with research emphasizing the role of organizational conditions in translating strategic awareness into action. Kahveci [37] demonstrates that organizational responses to external challenges are shaped by internal resources, strategic choices, and organizational conditions, while Zahoor et al. [38] highlight the importance of organizational capabilities and strategic agility in translating strategic intentions into implemented responses. Although these studies examine different organizational contexts, they reinforce the present finding that awareness and strategic commitment alone may not be sufficient to ensure systematic implementation.

The present study further demonstrates that the strongest outcomes of the projects were observed in the dimension of social contribution. Participants emphasized effective local collaborations, increased social awareness, support for disadvantaged groups, and the development of a culture of resource sharing. These findings suggest that project-based SDG initiatives can generate meaningful community engagement when implemented through multi-stakeholder partnerships. Nevertheless, weaknesses in monitoring, evaluation, and performance measurement indicate that the long-term sustainability of these initiatives has not yet been fully secured. Similar conclusions have been reported in recent studies highlighting that participatory and stakeholder-oriented approaches are essential for achieving transformative sustainability outcomes. Fernando and Tajan [39] concluded that participatory research strengthens stakeholder engagement and enhances the effectiveness of Education for Sustainable Development by integrating community perspectives into educational practice. Likewise, Sadovska et al. [40] demonstrated that collaboration among educational institutions, community organizations, and external stakeholders increases both the social impact and long-term sustainability of education for sustainability initiatives. Collectively, these studies support the present findings by demonstrating that sustainable educational transformation depends not only on raising awareness but also on institutional commitment, stakeholder participation, and systematic monitoring and evaluation mechanisms.

The findings suggest that SDG-oriented educational initiatives may contribute to transformative change by fostering sustainability awareness and encouraging behavioral transformation among educational stakeholders. These findings are consistent with recent studies showing a significant increase in awareness of the Sustainable Development Goals in educational settings over the past decade. However, some studies indicate that despite relatively high awareness, the integration of Sustainable Development Goals principles into institutional practices and governance structures remains limited. Research highlights that

while initiatives related to the Sustainable Development Goals are adopted, these efforts often remain fragmented and are implemented mostly as individual projects rather than as part of a comprehensive institutional strategy [23,24].

Similarly, research on Education for Sustainable Development shows that stakeholder engagement plays a crucial role in transforming sustainability awareness into organizational and behavioral change [41]. Studies suggest that while sustainability is increasingly integrated into education systems, meaningful change requires greater stakeholder involvement in decision-making processes and organizational practices. In this context, findings reveal that although education stakeholders exhibit a positive attitude towards the Sustainable Development Goals, their participation in educational programs, workshops, and structured sustainability activities is quite limited [20,42]. The findings indicate several barriers to the institutionalization and scalability of SDG projects, including limited SDG training, weak integration into strategic planning, unclear responsibilities, and insufficient monitoring mechanisms. These factors may explain why awareness does not consistently translate into routine practice. Although the implementation of SDG projects was facilitated by stakeholder and NGO partnerships, scaling the model would require stronger institutional mechanisms for planning, staff development, monitoring, and continuity. Thus, the sustainability of the model depends not only on implementing individual projects but also on embedding SDGs into regular school planning and practices.

An important distinction emerges when the applied project evidence presented in Table 4 is considered alongside the interview findings presented in Table 5. Table 4 demonstrates that all 17 projects involved concrete SDG-related activities and produced stated or observed project-level outcomes. As shown in Table 4, the projects varied in the extent to which they directly addressed specific SDG targets, with some activities making a direct contribution and others representing a more indirect contribution. In contrast, Table 5 reflects participants' perceptions of the extent to which SDG principles were incorporated into broader institutional practices. The two sources were therefore not treated as equivalent forms of evidence. Rather, they were triangulated by comparing what was implemented at the project level with participants' perceptions of institutional integration. The apparent discrepancy between concrete project activity and weaker strategic integration or monitoring is therefore analytically meaningful rather than contradictory. It suggests that organizations can implement successful individual SDG projects without necessarily embedding SDG principles into their broader institutional routines. The convergence between the applied project evidence and interview perceptions suggests that the projects were capable of producing visible social value even when organizational monitoring and strategic integration remained relatively weak. This finding further indicates that decoupling should not be interpreted as a complete absence of substantive activity. Rather, substantive outcomes may emerge at the project and community levels while remaining only partially institutionalized at the organizational level.

The study's findings reveal key institutional shortcomings hindering the widespread adoption of Sustainable Development Goals (SDGs)-focused projects across the organization, including inadequate training, unclear responsibilities, lack of strategic integration, and weak monitoring mechanisms. This explains why awareness does not translate into lasting routines and why successes remain dependent on individual efforts or temporary external partnerships. Therefore, the successful transfer of the model to other schools depends not on simply repeating individual activities, but on establishing robust institutional mechanisms that make planning, capacity building, resource allocation, and monitoring processes sustainable.

Table 5. Themes, Article and Frequency (n) of Participants' Responses.

Theme	Article	n	Participants' Opinion
Awareness and Consciousness	General information about SDG	9	"I have general knowledge about SDG." (P2) "I know what SDG is, but I can't say I have a complete understanding of the subject." (P7)
	SDG -institution relationship	9	"We plan the activities we carry out in our institution within the framework of the SDGs." (P5) "Some of the activities we organize are not related to the SDGs." (P11)
	The impact of SDG on daily decisions.	7	"I disagree. SDGs are not effective in my daily decisions" (P3) "I consider SDGs to a limited extent, though not completely, in my daily decisions" (P9)
Implementation and Participation	SDG projects at the institution	6	"Our institution carries out projects aimed at achieving the SDG goals" (P5) "As an institution, we develop many projects that will contribute to society, but only partially are they geared towards the SDG goals." (P12)
	Training/seminar participation	4	"I did not attend any training that directly included SDG goals." (P1) "I attended a workshop on SDG goals and what can be done in this direction." (P16)
	Alignment of institutional policies with SDGs	5	"Institutional policies are partially in line with SDG principles (P4) "I am undecided; it cannot be said to be fully compliant." (P13)
Contribution and Responsibility	Individual SDG contribution	5	"I am implementing practices that will contribute to the SDGs within the scope of my duties and responsibilities." (P6) "I am carrying out activities that will contribute in line with the institution's policies." (P14)
	Developing innovative ideas	4	"I am not coming up with innovative ideas in this regard." (P15) "I am trying to achieve the SDG goals through various activities within the scope of available resources." (P2)
	Inclusion of SDGs in strategic plans	5	"Instead of remaining as project-based initiatives, SDGs should become part of corporate strategic planning." (P8) "Even if they are not fully included in the planning at the moment, they should definitely be in line with the organization's goals." (P10)
Impact and Monitoring	Performance indicators are measured.	4	"Monitoring mechanisms are inadequate." (P7) "Performance indicators are measured, albeit inadequately." (P3)
	Sharing the results with stakeholders.	6	"The results of SDG activities are shared with stakeholders within the scope of accountability." (P1) "The results of projects and activities are analyzed with relevant stakeholders." (P6)
	Contribution to corporate sustainability	6	"Of course, SDG practices contribute to corporate sustainability." (P16) "Practices carried out in line with the SDGs contribute to sustainability in every aspect." (P3)
Social Contribution	Local collaborations	10	"SDG projects are carried out with stakeholders." (P17) "Our institution engages in activities that contribute to SDGs with local communities and stakeholders." (P6)
	Social awareness	11	"Our activities raise awareness." (P5, P12)
	Contribution to disadvantaged groups	11	"Supporting disadvantaged groups has been one of the most valuable outcomes of these initiatives." (P8) "We are developing projects to create equal opportunities for disadvantaged groups." (P4)
	Sharing information and resources	10	"Information and experience are shared, particularly in the context of preserving culture and contributing to society." (P9) "Information and resources are shared with other institutions and stakeholders within the scope of sustainability." (P11)
	Relationship with corporate identity	8	"One of the institution's primary aims is to contribute to society." (P1, P 17)

7. Conclusions

The results of the study show that education stakeholders have a general knowledge of the Sustainable Development Goals (SDGs). Many respondents said they were familiar with the SDGs and that their institutional activities were pertinent. Opinions about the total inclusion of SDG ideas into daily decision-making systems, on the other hand, appear to be more circumspect. This implies that although awareness has developed at the cognitive level, its transfer to the behavioral level is still constrained. The results show that although SDG knowledge is present in educational environments, deliberate and ongoing actions are needed to be improved.

Results gathered under the heading of implementation and participation show that although actual projects targeting SDG goals are in progress in educational institutions, the degree of involvement differs amongst stakeholders. While most participants admitted the existence of SDG-centered activities in their organizations, they pointed to little engagement in SDG-related workshops, lectures, and training. Opinions further indicate that institutional regulations are only somewhat in line with SDG goals. These results suggest that SDG initiatives are primarily project-based, although full integration at the institutional level has not yet been completely accomplished.

Studies on how participants view individual contributions and duties show that stakeholders are ready to support the SDGs, but this support is mostly small and stays at the personal level. Although some participants said they used strategies promoting the SDGs in their own spheres of accountability, they showed a more cautious approach to coming up with original ideas. The fact that opinion on the degree to which SDG targets are incorporated into the strategic plans of businesses is moderate indicates that sustainability has still not grown into a core element of corporate culture.

Results on the influence and monitoring theme show that one of the weakest features of SDG initiatives is their absence of organized evaluation methods. Participants reported that performance measures for SDG objectives are seldom evaluated and that implementation outcomes are only somewhat reported to interested parties. It is remarkable, though, that people view the implementation of SDGs helping to achieve corporate sustainability as rather favorable. These results show that while SDG projects are successful, their monitoring and evaluation systems are not well designed.

Findings on the theme of community contribution show that educational institutions are carrying out SDG projects in collaboration with local communities and civil society organizations. Participants stated that these projects create positive awareness in the community and that social responsibility activities, especially those targeting disadvantaged groups, are prominent. Furthermore, it was noted that knowledge, experience, and resource sharing take place within the scope of SDGs, and that community contribution activities are beginning to become part of the institutional identity. This theme reveals that SDG projects are an important tool for integrating educational institutions with the community.

A cross-analysis of the research findings reveals that SDG projects in education are strong at the implementation level and visible in terms of social impact, but weak in terms of institutional integration and monitoring and evaluation. While tangible social assistance and social awareness projects receive a high perceptual response, environmental and governance-based SDGs are not sufficiently internalized at the behavioral and institutional levels. This cross-analysis demonstrates that it is critically important not only to implement SDG projects, but also to measure, report, and integrate them into education policies.

Although SDG 17 was represented by a specific project focused on strengthening partnerships, partnership should not be understood in this study as a characteristic limited to SDG 17. Rather, collaboration was a cross-cutting feature of the implementation of the 17 projects. Each project was implemented through collaboration between the school and

one or more external organizations, while the composition and intensity of stakeholder involvement varied according to the objectives and target groups of the projects. The project-level data demonstrate participation by NGOs, teachers, students, parents, municipalities, businesses, and other community actors across different initiatives. Interview findings further indicate that local collaboration, information sharing, and stakeholder engagement were among the most frequently reported dimensions of social contribution. Thus, SDG 17 functioned both as an explicit project objective and as an enabling mechanism underlying the implementation of the other SDGs. The findings suggest that the quality and continuity of partnerships may influence the visibility and reach of project outcomes. Projects involving broader stakeholder participation tended to generate more visible social and community-level outcomes, whereas institutional integration and monitoring remained comparatively weak. This pattern indicates that partnerships can facilitate the implementation and social impact of SDG projects without necessarily ensuring their institutionalization. In this sense, partnership operates as a cross-cutting implementation mechanism, while strategic planning, role allocation, and monitoring determine whether partnership-based initiatives become sustained institutional practices.

8. Limitations and Future Studies

This study has several limitations that should be considered when interpreting the findings. The research employed a qualitative design focusing on 17 SDG-oriented educational projects implemented in collaboration with different non-governmental organizations (NGOs). Although this approach provided an in-depth understanding of project implementation and stakeholder experiences, the findings are context-specific and cannot be generalized to all educational institutions or SDG initiatives. The projects differed in terms of objectives, participant profiles, and implementation processes, which may have influenced stakeholders' perceptions and project outcomes. Additionally, the study relied primarily on semi-structured interviews with NGO representatives and project stakeholders. Although these participants were directly involved in the planning and implementation of the projects, their perceptions may reflect subjective experiences and organizational perspectives. Future studies could strengthen the evidence base by incorporating additional data sources, such as classroom observations, document analysis, longitudinal monitoring data, and quantitative surveys involving larger samples of students, teachers, and community members. A further limitation concerns the relatively small qualitative interview sample. Because the study included 17 interview participants, the frequencies reported in the findings should be interpreted as descriptive indicators of the prevalence of particular views within the sample rather than as statistical estimates or evidence of population-level generalizability. Future studies could employ larger samples and mixed-method designs to further examine the prevalence and generalizability of the patterns identified in this study.

A further limitation is that the interview data were obtained exclusively from NGO representatives. Although teachers, students, parents, and other stakeholders participated in the implementation of the projects, their perspectives were not directly collected through interviews. The findings therefore primarily reflect the experiences and interpretations of the organizations involved in project planning and implementation rather than providing a comprehensive account of all stakeholder perspectives.

The evaluation focused mainly on stakeholders' perceptions of project implementation and outcomes rather than measuring the long-term behavioural, educational, or institutional impacts of the projects. Future research should adopt mixed-method or longitudinal research designs to examine whether SDG-oriented educational projects produce sustained changes in sustainability awareness, institutional practices, and community engagement over time. Comparative studies conducted across different educational contexts and coun-

tries would also contribute to a broader understanding of the effectiveness of project-based Education for Sustainable Development (ESD).

Education authorities should integrate the Sustainable Development Goals into national curricula using a whole-school approach rather than treating sustainability as a separate curricular topic. Sustainability should become a guiding principle influencing curriculum development, school leadership, institutional management, and community engagement. The study also offers practical recommendations for school leaders and practitioners. School principals should integrate sustainability into school development plans and encourage interdisciplinary collaboration among teachers. Sustainability initiatives are more likely to succeed when they become part of institutional planning rather than isolated extracurricular activities. Teachers should adopt experiential learning strategies that allow students to engage directly with real-world sustainability challenges. Field visits, community service, environmental conservation projects, health campaigns, and collaborative problem-solving activities provide meaningful learning opportunities that strengthen sustainability competencies.

Future studies should examine whole-school SDG implementation across multiple schools, educational levels, and national contexts to enhance the transferability of the findings. Comparative international studies could investigate how cultural, institutional, and policy differences influence the implementation of sustainability education.

Author Contributions: Conceptualization, Z.A.; methodology, S.A.; software, N.M.B.; validation, Z.A., N.M.B.; formal analysis, N.M.B.; investigation, Z.A.; resources, N.M.B.; data curation, S.A.; writing—original draft preparation, N.M.B.; S.A.; writing—review and editing, Z.A.; visualization, S.A.; supervision, Z.A.; project administration, S.A.; funding acquisition, S.A. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with and approved by the the Scientific Research Ethics Committee of Near East University (Approval No: YDU/EB/2025/1208—Approval date: 30 July 2025).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

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