

COMMUNITY ENGAGEMENT AND ACCOUNTABILITY IN ENVIRONMENTAL CONSERVATION: STRATEGIES, CHALLENGES, AND OPPORTUNITIES

Elmer P. Peneciba

North Eastern Mindanao State University

PHILIPPINES

elmer.peneciba@deped.gov.ph

ABSTRACT

Community engagement and accountability play a crucial role in environmental conservation and preservation. This study employs thematic analysis to explore the potential strategies, challenges, and opportunities that shape the involvement of stakeholders, including teachers, school heads, PTA officers, and Youth for Environment in Schools Organization (YES-O) officers, in sustainability efforts. By analyzing qualitative responses, the study identifies recurring themes that influence the effectiveness of conservation initiatives and provides insights into the factors that enhance or hinder active participation.

Findings indicate that one of the most pressing challenges is the lack of awareness, education, and training, where knowledge gaps prevent individuals and communities from engaging in meaningful environmental action. Additionally, resource constraints and financial challenges limit the implementation of sustainability programs due to insufficient funding, infrastructure, and logistical support. Furthermore, cultural sensitivity and trust issues create barriers to participation, particularly when past environmental projects have been mismanaged or failed to address community concerns.

To address these barriers, the study identifies key strategies for improving environmental conservation efforts. Education and awareness programs, particularly those integrated into school curricula, foster environmental literacy and long-term engagement. Community-based actions, such as clean-up drives, tree-planting initiatives, and waste segregation programs, empower individuals to take responsibility for their surroundings. Additionally, recognition and incentives—including rewards, public acknowledgment, and community-driven appreciation programs—serve as effective motivators for sustained participation in conservation activities.

Beyond challenges and strategies, this study also highlights opportunities for strengthening community involvement. Community empowerment and livelihood initiatives, such as eco-tourism, community gardens, and resource management programs, provide economic incentives while promoting environmental responsibility. Moreover, fostering climate resilience and integrating traditional knowledge into conservation efforts allows for culturally responsive and sustainable approaches that align with local values.

Keywords: Conservation, Preservation, Community Engagement

INTRODUCTION

Environmental conservation and preservation are crucial challenges that necessitate collaborative action from all segments of society. As the effects of climate change, pollution, and biodiversity loss become more visible, the importance of community engagement and accountability in environmental activities has grown significantly. Effective community engagement instills a sense of responsibility in individuals and improves the overall effectiveness of environmental

policies and practices. Researchers and environmentalists emphasize the need of community involvement in supporting sustainable environmental practices. David (2021), Sahai (2019), and Sumardjo et al. (2023) underline the importance of community involvement in building collective responsibility and environmental stewardship. In the Philippines, encouraging community participation has been critical to improving environmental protection efforts and guaranteeing sustainability, as demonstrated by Calinao et al. (2021) and Mamauag and Orencio (2021).

Despite legislative support such as Republic Act 9512, issues remain, including a lack of awareness, resources, and institutional efficacy (Kumar, 2023; Taylor et al., 2022). These barriers prevent effective community participation in environmental conservation, contributing to continuous environmental deterioration and biodiversity loss. Addressing these difficulties is critical to improving comprehensive environmental education and promoting sustainable practices in schools and communities (Phan Hoang & Kato, 2019; Throssel, 2023).

In terms of environmental conservation and preservation in DepEd Surigao del Sur, recurring local challenges reveal a major lack of community engagement and accountability. Despite a variety of programs and regulatory frameworks aiming at increasing community involvement, the researcher observed persisting obstacles. For example, they discovered that while many community members participate in environmental conservation programs, fewer are actively involved in policy lobbying efforts. Furthermore, the researcher discovered that awareness of environmental policies and sustainable practices is low.

With the information provided above, this study aimed to provide actionable insights and recommendations to improve the effectiveness of environmental education programs and promote stronger community involvement in environmental conservation and preservation initiatives. This study attempted to promote the adoption of comprehensive environmental education initiatives, developing an environmental stewardship and sustainability culture in local communities. Moreover, in alignment with the Sustainable Development Goal (SDG) on environmental conservation and preservation, this research contributed to the broader global agenda of ensuring sustainable and responsible practices to address environmental challenges. The study aligned with SDG 15, which focused on protecting, restoring, and promoting sustainable use of terrestrial ecosystems, and SDG 4, which underscores the importance of quality education for fostering environmental awareness and responsibility.

LITERATURE REVIEW

The concept of environmental education emerges as a dynamic and transformative process, as highlighted by the United States Environmental Protection Agency (2022). This process empowers individuals not only to comprehend the complexities of environmental issues but also to actively engage in problem-solving and contribute meaningfully to environmental betterment. This aligns with the perspective of the Global Development Research Center (2020), which defines Environmental Education (EE) as a profound journey that equips individuals with a profound understanding of their surroundings, enriches them with valuable knowledge and skills, and instills essential values and experiences. To sustain environmental conservation and preservation through education, the National Environmental Education Act of 1990 mandates the

Environmental Protection Agency (EPA) to take a leadership role in enhancing environmental literacy (Bearden, 2019). According to him, the Act also authorizes the EPA to provide grants and cooperative agreements to support projects related to environmental education and training. These projects focus on designing, demonstrating, or disseminating best practices in environmental education. The Act emphasizes the importance of engaging various educational entities, including local education agencies, colleges, universities, nonprofit agencies, and noncommercial broadcasting entities, in applying for and utilizing these grants (McAllister, 2019).

As perceived by Munna & Kalam (2021), not only does community engagement exist but accountability. The accountability of stakeholders in environmental conservation and preservation is crucial for fostering sustainable practices, demanding that individuals and entities involved uphold their responsibilities towards the environment. Cashore et al.'s (2021) exploration of "private environmental governance" underscores the necessity of holding these stakeholders accountable, aligning their actions with established environmental regulations and standards. Kern and Bulkeley (2019) further elaborate on the complexities of environmental governance, emphasizing the need for collaborative accountability mechanisms among diverse stakeholders to enhance the effectiveness of environmental policy outcomes.

Numerous scholarly works support the importance of community-based and integrated approaches to environmental management. Studies by Roka (2019), emphasize the effectiveness of community-based resource management in achieving sustainable outcomes. Additionally, the precautionary principle has been widely discussed in environmental literature, highlighting the significance of anticipatory action to prevent potential environmental harm. The incorporation of environmental impact assessment and cost-benefit analysis is consistent with international best practices for ensuring the sustainability of development projects (Pascual, 2023). Furthermore, the emphasis on shared responsibility and good governance aligns with governance theories that underscore the role of effective institutions and collaborative decision-making in environmental management (OECD, 2020).

METHODOLOGY

Research Design

In this research, a qualitative approach was utilized to delve into the strategies, challenges, and opportunities surrounding community engagement and accountability in environmental conservation and preservation. Qualitative methods allowed for a deep exploration of the perspectives, experiences, and practices of the respondents involved in these crucial efforts.

The study focused on identifying effective strategies that communities employ to engage with environmental issues, as well as the barriers or challenges they face in these endeavors. It also aimed to uncover opportunities for enhancing community involvement and accountability in preserving and conserving the environment.

By using qualitative methods such as interviews, focus groups, or ethnographic observations, the researchers gained rich insights into the lived experiences and perceptions of those actively engaged in environmental initiatives. This approach not only highlighted the diversity of

strategies employed but also revealed nuanced challenges that impact effective community participation.

Research Locale

The research was conducted in public elementary and secondary schools within the Municipality of Barobo, Tagbina, and Hinatuan of the 2nd District of Surigao del Sur, namely Barobo Central Elementary School, Tambis Central Elementary School, Barobo National High School, Tagbina Central Elementary School, Tagongon Central Elementary School, Tagbina National High School, Hinatuan South Central Elementary School, Hinatuan North Central Elementary School, and Hinatuan National Comprehensive High School.

These nine (9) public schools were particularly relevant due to their rich biodiversity and significant environmental challenges, such as deforestation and coastal degradation. These factors provided a compelling backdrop for examining community engagement in environmental conservation.

Research Respondents

A total of 596 respondents out of 611 were selected to participate in this study through a stratified random sampling and full enumeration technique, guided by Slovin's formula, to ensure a representative and reliable sample of the population. The respondents were strategically distributed across several key positions: PTA officers, YES-O (Youth for Environment in Schools Organization) officers, faculty/coordinators/advisers, and school heads. These respondents were drawn from nine public schools at both elementary and secondary levels in the municipalities of Barobo, Tagbina, and Hinatuan, all located in the 2nd District of Surigao del Sur. All selected respondents were actively engaged in environmental education and efforts within their respective schools and communities.

Research Instrument

Key informant interviews were conducted among the PTA, YES-O officers, faculty/coordinators/advisers, and school heads through face-to-face sessions using open-ended questions relevant to the study. These questions included both key questions that allowed respondents to share their expert opinions and probing questions that encouraged deeper reflection on the subject. This approach gathered in-depth qualitative data on their views and opinions regarding potential strategies, challenges, and opportunities related to community engagement and accountability in environmental conservation and preservation.

Statistical Treatment

After organizing the collected data, the researcher carefully analyzed the interview transcripts using Creswell's thematic analysis framework. The process began with data immersion, where the researcher repeatedly reviewed the recorded interviews to fully grasp the respondents' perspectives on community engagement and accountability in environmental conservation. Next, the researcher employed coding techniques, systematically identifying key phrases, recurring

ideas, and significant statements related to strategies, challenges, and opportunities in environmental initiatives. Through this iterative process, patterns emerged, revealing the shared experiences and unique insights of the participants.

RESULTS

Thematic Analysis of the Potential Strategies, Challenges, and Opportunities Exist in the Community Engagement and Accountability of the Respondents in Environmental Conservation and Preservation

This section provides a thematic analysis of the potential strategies, challenges, and opportunities related to community engagement and accountability in environmental conservation and preservation. By analyzing the qualitative responses of the participants, which originally included teachers, school heads, PTA officers, and YES-O officers. The analysis aims to identify recurring themes that reveal both the strengths and barriers to effective community involvement. These insights will help inform future approaches, strategies, and policy decisions to enhance environmental initiatives, encouraging greater accountability and more robust participation from all stakeholders involved.

Table 1. Perceived Challenges of the Respondents Relative to Environmental Conservation

Themes	Codes/Categories	Sample Transcription
Lack of Awareness, Education, and Training	Knowledge Gaps Lack of Education Lack of Awareness Lack of Training and Capacity Building	AA3: "Lack of awareness, education, and training" AAAM3: "Lack of awareness on environmental issues and preservation" B3: "Lack of collaboration, knowledge in trainings, and concern for environmental care"
Resource Constraints and Financial Challenges	Funding Issues Lack of resources Limited Infrastructure	Q3: "Conflicting interests, communication barriers, and trust issues" AB3: "Financial resources; lack of resources and funding for conservation"
Cultural Sensitivity and Trust Issues	Barriers to Participation Behavioral and Attitudinal Issues Laziness Cultural Barriers Trust Issues	AAAC3: "Low engagement, communication barriers, and lazy attitude" G3: "Lack of trust and community involvement" A3: "Lazy attitude, lack of cooperation, and little awareness"

		<p>N3: "Challenges from historical power dynamics, socio-economic disparities"</p> <p>Q5: "Addressing cultural diversity and language for successful conservation"</p> <p>AAM3: "Negative experiences and distrust from past projects"</p> <p>2WWW</p>
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One major challenge in environmental conservation is the lack of awareness, education, and training. Knowledge gaps hinder effective participation, as communities often lack access to necessary educational resources, training programs, and awareness campaigns. This leaves them ill-equipped to address complex environmental issues, highlighting the need for inclusive educational programs that can reach diverse populations.

As stated by Respondent B3, *"Lack of collaboration and lack of knowledge in trainings."* Similarly, AM3 pointed out that *"Lack of knowledge and lack of time."* Additionally, A3 mentioned that *"Lazy attitude, non-environmental concern, and lack of training and awareness."* Another significant challenge is resource constraints and financial challenges, where limited financial resources and infrastructure pose barriers to the implementation of conservation initiatives. Communities often struggle to secure funding, which results in incomplete or unsustainable efforts. Innovative funding models and partnerships with government and non-governmental organizations are crucial for overcoming this issue.

As noted by AB3, *"Financial resources. Communities sometimes lack resources in participating actively in conservation projects."*

Additionally, cultural sensitivity and trust issues stem from historical power dynamics, socio-economic disparities, and differing cultural values, which create barriers to trust and cooperation. Past negative experiences with poorly managed projects exacerbate these issues, underlining the importance of culturally sensitive engagement and transparent communication.

As emphasized by Respondent N3, *"These challenges stem from a complex interplay of factors including historical power dynamics, socio-economic disparities, and differing perspectives on environmental values."* Moreover, AAM3 highlighted that *"Negative experiences with past conservation projects, where benefits were not shared equitably or communities were not adequately compensated for their participation, can create distrust and reluctance to engage in future initiatives."*

Overcoming these barriers requires embracing cultural diversity and fostering open, inclusive dialogue to build stronger, more trusting community relationships.

Q5 asserted that *"Addressing cultural diversity and language is not merely a matter of inclusivity. It is essential for the success of conservation efforts."* Additionally, AAAC3

mentioned that *"Conflicting interest and priorities, communication barriers, and trust issues, and lack of capacity and resources."*

Environmental conservation faces significant challenges that hinder the success of initiatives aimed at preserving natural resources and promoting sustainable practices. This issue aligns with findings from other related studies, highlighting how a lack of awareness, education, and training creates knowledge gaps that hinder communities from actively engaging in conservation efforts (Abdul et. al., 2023). Without proper education and capacity-building, individuals remain ill-equipped to address environmental issues, highlighting the need for inclusive educational programs (Eslit, 2023).

As per Respondent Q3, *"Conflicting interest and priorities, communication barriers, and trust issues, and lack of capacity and resources."* Furthermore, G3 pointed out that *"Climate change, lack of trust, lack of cooperation."*

Another challenge is resource constraints and financial limitations, where communities often struggle to secure funding and resources necessary for the implementation of conservation initiatives, resulting in incomplete or unsustainable efforts (Calinao et al., 2021). To address this, innovative funding models and partnerships with government and non-governmental organizations are crucial (Smith et al., 2018).

Additionally, cultural sensitivity and trust issues arise from historical power dynamics, socio-economic disparities, and differing cultural values, creating barriers to cooperation and engagement in conservation activities (Eslit, 2023). These issues are further compounded by past negative experiences with poorly managed projects, exacerbating distrust and reluctance to participate (Catuday, 2023).

AA3 stated that *"Lack of interest and out of feelings responsibility."*

To address these challenges, it is crucial to foster cultural sensitivity, encourage inclusive dialogue, and actively involve communities in decision-making processes. These steps help build trust and enhance the effectiveness of conservation efforts (Abdul et. al., 2023). Addressing these barriers requires a collaborative effort that considers local contexts, empowers communities, and ensures sustainable financial support.

Table 2. Perceived Strategies of the Respondents Relative to Environmental Conservation

Themes	Codes/Categories	Sample Transcription
Education and Awareness	Role of Education	D1: "Education and awareness play a critical role"
	Education Knowledge	I1: "Raising awareness and educating each one"
	Collaboration and Local Leadership	T1: "Effective strategies involve raising awareness and education"
	Curriculum Integration Holistic Conservation	AAK1: "Education and collaboration with local leaders raise awareness"

		<p>AAC4: "School programs integrate conservation projects into the curriculum"</p> <p>P1: "Engaging schools and creating opportunities for participation"</p> <p>AAAO5: "Integrating traditional knowledge with modern practices for holistic approaches"</p> <p>AH4: "Combining sustainable techniques with scientific approaches"</p> <p>E5: "Incorporating traditional knowledge for climate-resilient practices"</p>
Community-Based Actions	<p>Community Initiatives</p> <p>Clean up</p> <p>Waste Management Strategies</p> <p>Participatory Approaches</p> <p>Planting</p> <p>Promoting</p>	<p>AAQ2: "Clean-up drives and community initiatives foster participation"</p> <p>I2: "Planting trees and community-based conservation efforts"</p> <p>G2: "Engage in community gardening and apply the 3 R's"</p> <p>AG2: "Promoting the 3 R's (Reduce, Reuse, Recycle)"</p> <p>AJ2: "Focus on waste solutions to protect the environment"</p> <p>AM1: "Implement clean-up drives and community training"</p> <p>AD2: "Using participatory research and community involvement for holistic conservation"</p> <p>AAAQ5: "Collaborating with indigenous communities for culturally appropriate conservation strategies"</p>
Recognition and Incentives	<p>Motivational Strategies</p> <p>Rewards</p> <p>Recognition</p> <p>Incentives</p>	<p>AAW1: "Rewards motivate community participation in preservation"</p> <p>AQ1: "Recognition and rewards should be given to active participants"</p>

		AAY1: "Offering incentives for conservation contributions"
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Effective environmental conservation strategies often begin with education and awareness, which are foundational to fostering environmental stewardship. Schools play a key role by integrating conservation projects into curricula, educating students on sustainability, and encouraging family and community engagement. As stated by Respondent D1, *"Education and awareness play a critical role in fostering participation."* Similarly, I1 mentioned that *"The most effective strategies are raising awareness and educating each one."* Likewise, T1 reinforced this by stating, *"For me, the most effective strategies are raising awareness and educating each one."* Collaborating with local leaders amplifies these efforts through awareness campaigns and workshops, building a knowledge base that empowers individuals to make informed decisions about their environmental impact. According to P1, *"Raising awareness and education, engaging schools and educational institutions, creating opportunities for participation and empowerment, building trust and collaboration, and addressing equity and justice"* are key strategies for conservation.

Another critical strategy is community-based actions, where initiatives such as clean-up drives, tree planting, and waste segregation foster a sense of ownership and promote sustainable practices like the 3 R's (Reduce, Reuse, Recycle). AAK1 stated that *"Application of 3Rs"* is a crucial approach in environmental conservation. AAO2 provided an example, noting, *"One of the examples of this is the Clean-Up Drive taken by the barangay officials."* I2 also highlighted the importance of action, saying, *"Planting trees, segregate non-biodegradable and biodegradable, and reduce, reuse, and recycle."* Similarly, AG2 stated, *"Planting trees, segregate non-biodegradable and biodegradable, and reduce, reuse, and recycle."* AJ2 observed that *"Local clean-up drives and household proper waste segregation somewhat contribute to environmental conservation within the community and tree planting."*

Interactive workshops and collaborative projects further engage residents, making environmental issues shared responsibilities. AAC4 emphasized this by stating, *"By actively involving local communities in planning and implementation of conservation projects."* AM1 added that *"This can be achieved through participation of local government and the communities to implement cleanliness and awareness for everyone."* AD2 provided a real-world example, stating, *"One notable example is the Bantay Dagat, which protects their marine resources through patrol and monitoring."*

Additionally, recognition and incentives serve as motivational strategies to encourage participation. By rewarding contributions and publicly recognizing efforts, communities can sustain long-term engagement and reinforce eco-friendly behavior. AAW1 stated, *"Giving rewards is a great motivator in active participation of the community in relation to environmental preservation."* AQ1 added that *"Incentives and recognition—offering incentives and recognition for individuals and groups who contribute to conservation—are effective strategies."* AAY1 echoed this by stating, *"Giving rewards encourages and cooperates with community service."*

Effective environmental conservation strategies highlight the critical role of education and awareness in cultivating a sense of environmental stewardship (Abdul et. al., 2023). Schools play a pivotal role by integrating conservation projects into curricula, educating students about sustainability, and encouraging family and community involvement (Eslit, 2023). Collaborating with local leaders to conduct awareness campaigns and workshops amplifies these efforts, creating a knowledge base that empowers individuals to make informed decisions about their environmental impact (Calinao et al., 2021).

Another effective strategy is community-based action, where initiatives like clean-up drives, tree planting, and waste segregation foster a sense of ownership and promote sustainable practices, such as the 3 R's (Reduce, Reuse, Recycle) (Smith et al., 2018). AAAO5 emphasized the importance of integrating cultural wisdom, stating, *"Integrating traditional knowledge practices into modern environmental conservation strategies."* AH4 highlighted a balanced approach, stating, *"Combining sustainable techniques with scientific approaches for historic preservation."* E5 further elaborated, stating, *"Offering valuable insight into climate-resilient practices such as agroforestry, water management, and disaster preparedness."*

Additionally, incorporating traditional knowledge alongside modern practices ensures that conservation strategies are culturally appropriate and adaptable to local contexts (Eslit, 2023). AAAQ5 emphasized this by stating, *"Collaborate with indigenous communities and traditional knowledge holders to develop and implement conservation strategies that are culturally appropriate and sustainable."*

Recognition and incentives also serve as motivational strategies, as offering rewards and public acknowledgment encourages participation and reinforces eco-friendly behavior, ensuring long-term engagement (Catuday, 2023). By creating an inclusive environment where individuals feel valued for their contributions, these strategies promote sustainable conservation efforts.

Table 3. Perceived Opportunities of the Respondents Relative to Environmental Conservation

Themes	Codes/Categories	Sample Transcription
Community Empowerment and Livelihood	Empowerment through Participation	AAZ5: "Creating employment opportunities and supporting local livelihoods"
	Local livelihoods	
	Community values	AC5: "Recognizing community values in ecosystem and resource management"
	Resource management	
	Community-Led Actions	AP2: "Clean-up drive, tree planting, bayanihan"
	Bayanihan	AAI2: "Alay kalinisan, bayanihan for the environment"
	Inclusivity and Belonging:	H1: "An inclusive environment"

	Social Networks	encourages community participation" AB1: "Social bonds provide platforms for community initiatives" Z1: "Personalized invitations help members feel a sense of belonging"
Economic Growth and Climate Resilience	Eco-tourism and Job Creation Local Economic Benefits Health Environment Conservation Benefits	S6: "Economic growth and job creation through conservation" AS2: "Promote local food and community garden" AT6: "Health benefits from environmental conservation". F6: "Biodiversity, climate change mitigation, and tourism" M2: "Community-driven initiatives for conservation"

Opportunities for furthering conservation lie in community empowerment and livelihood, where initiatives like community gardening and tree planting not only preserve biodiversity but also create jobs and improve local livelihoods. As Respondent AAZ5 stated, *"More employment opportunities to the community. Support local businesses, and improve livelihood."* Recognizing community values ensures that conservation strategies align with local needs, enhancing their effectiveness. Respondent AC5 mentioned, *"By recognizing their values in understanding ecosystem and sustainable resource management."*

Economic growth through eco-tourism also presents significant opportunities by integrating environmental preservation with economic development, attracting investments and generating jobs. The revenues from eco-tourism can be reinvested into further conservation efforts, promoting sustainable practices while showcasing biodiversity and unique ecosystems. As Respondent S6 noted, *"Community engagement can bring benefits to the economic growth, such as empowered efficiency and effectiveness of intervention."*

Additionally, community-based actions such as clean-up drives, tree planting, and bayanihan foster a sense of ownership and encourage sustainable practices. Respondent AP2 highlighted, *"Clean up drive, tree planting and bayanihan for the community."* Interactive workshops and collaborative projects further engage residents, making environmental issues shared responsibilities. Respondent H1 emphasized, *"The most effective strategies for encouraging active community participation involve creating an inclusive environment."* Respondent AB1 also reinforced this by stating, *"Social bond and relationship within the community provide platforms and initiatives."*

Recognition and incentives serve as motivational strategies to encourage participation. By rewarding contributions and publicly recognizing efforts, communities can sustain long-term engagement and reinforce eco-friendly behavior. Respondent Z1 stated, *"Extend a genuine and personalized invitation, showcase the input to effective outcome, ensuring each member feels a sense of belonging."*

Health benefits and climate resilience provide long-term advantages of proactive environmental management, improving air and water quality, and offering access to fresh produce through community gardens. Respondent AT6 stated, *"Clean air and water, healthy foods, and preserved nature—it can all benefit human health."* Respondent AS2 added, *"Promote local food and start a community garden, reduce community carbon footprint together, implement training and awareness to the community."*

Incorporating traditional knowledge into climate-resilient practices also helps communities adapt to environmental changes while maintaining their cultural heritage. Respondent F6 pointed out, *"Local communities possess valuable insight about the ecosystem, its biodiversity, and its challenge. By including them in decision making, conservation efforts become more effective and sustainable."* Respondent M2 concluded, *"Several community-driven initiatives have played a vital role in environment conservation around the world."*

The data highlights significant opportunities for environmental conservation through community empowerment, economic growth, climate resilience, health benefits, and the integration of traditional knowledge. These initiatives promote community-led actions and foster social bonds, which are essential for successful conservation efforts (Lee and Suh, 2022). The potential for economic growth through eco-tourism is particularly notable, as it not only creates local economic opportunities but also funds further conservation efforts. Abdul et al. (2023) highlights the economic benefits of environmental conservation align with job creation, local economic growth, and health improvements, such as enhanced air and water quality. Moreover, integrating traditional knowledge into environmental management strengthens climate resilience, enabling communities to adapt to environmental changes while preserving their cultural heritage. This holistic approach ensures the long-term sustainability of conservation efforts. These opportunities emphasize the comprehensive benefits of community-driven environmental conservation, which encompasses economic, social, and ecological advantages, ensuring a resilient and sustainable future.

DISCUSSION

The results reveal a strong consensus among respondents regarding the importance of various strategies for enhancing environmental conservation efforts. Nearly all respondents (99.16%) believe that increasing community education and awareness programs can significantly improve conservation outcomes, underscoring the value placed on knowledge dissemination as a tool for environmental stewardship. A similarly high percentage (98.32%) supports the involvement of local leaders, suggesting that leadership is viewed as critical for fostering community participation. Collaborative projects with NGOs are also highly favored (96.64%), reflecting the belief that partnerships are essential for achieving conservation goals. Social media is seen as an effective tool for advocacy and mobilization by 95.81% of respondents, highlighting the growing

role of digital platforms in environmental activism. Additionally, incorporating environmental education into school curricula received broad support (92.62%), demonstrating a commitment to long-term conservation practices through early education. However, certain challenges were identified. The lack of funding and resources was acknowledged by 84.4% of respondents as a significant barrier to community engagement, and community apathy was seen as a major obstacle by 88.09%. Similarly, insufficient government support (87.25%) and limited access to information (85.91%) were viewed as hindering factors. Cultural and social barriers were identified as significant challenges by 93.46% of respondents, emphasizing the need for culturally sensitive approaches. Technology was viewed positively by 98.15% of participants as a means to enhance community involvement, while partnerships with the private sector (98.49%) and volunteer programs (98.99%) were also seen as promising avenues for boosting engagement. Lastly, promoting sustainable practices (99.66%) and developing local policies (98.83%) were considered important for enhancing accountability and community involvement.

Overall, the results indicate a strong consensus on the importance of education, leadership, collaboration, and technology in promoting environmental conservation. Despite these positive perceptions, significant challenges such as funding shortages, community apathy, and inadequate government support were acknowledged. Addressing these obstacles and leveraging the identified opportunities could enhance community participation and improve conservation outcomes.

CONCLUSIONS

The study identifies critical strategies, challenges, and opportunities for enhancing community engagement and accountability in environmental conservation. Education and Awareness are essential, with awareness campaigns and educational programs fostering understanding of environmental issues. Community Engagement and Ownership through initiatives like clean-up drives cultivate responsibility and stewardship among local members. Incentives and recognition motivate participation, while practical actions, such as promoting the 3 R's (Reduce, Reuse, Recycle), translate awareness into impactful behavior. However, challenges persist, including a lack of awareness and education, limited resources, cultural apathy, and issues of mistrust. Addressing these requires inclusive strategies that honor cultural diversity and overcome language barriers. Integrating traditional knowledge into modern conservation efforts offers opportunities for enhanced community involvement and sustainable practices.

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