

Strengthening the Sustainability of Community-Based Turtle Conservation Funding in Bali through Digital Fundraising Strategies and Social Media Digital Marketing

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Abstract.

Community-involved turtle conservation plays a crucial role in preserving endangered marine species and increasing public awareness of the environment. The success of these conservation initiatives is linked not only to conservation efforts but also to the continuity of funding that supports conservation activities. This study aims to analyze the potential of digital fundraising strategies and digital marketing through social media to strengthen the sustainability of community-based turtle conservation funding at the Turtle Conservation and Education Center (TCEC) in Serangan Village, Bali. This study used a descriptive qualitative approach through field observations conducted during the 2026 International Community Service (ICS) program. Data were collected through participant observation, informal discussions with conservation managers, and documentation of conservation activities. The results indicate that the sustainability of conservation activities still relies on internal funding and visitor donations, while the utilization of digital fundraising strategies has not been optimal. Proposed strategies include implementing a digital fundraising platform, optimizing social media through storytelling content, and collaborating with various parties to increase public participation and fundraising effectiveness. This research demonstrates that the integration of crowdfunding platforms, QR-based donations, storytelling content, social media campaigns, influencer collaboration, and community engagement strategies has the potential to increase fundraising effectiveness while expanding public participation in conservation. Digital marketing not only increases financial support but also strengthens environmental education and multi-stakeholder collaboration. The research findings indicate that the integration of digital fundraising and social media marketing has the potential to strengthen funding sustainability while increasing public participation in supporting community-based turtle conservation in Bali.

Keywords: *Turtle conservation; Digital; Fundraising; Social media marketing; Funding sustainability; Community participation.*

I. INTRODUCTION

Turtles are a type of marine animal that plays a vital role in maintaining the stability of coastal and marine ecosystems. As a keystone species, turtles contribute to the sustainability of seagrass beds, coral reefs, and the marine food web. Unfortunately, several threats such as habitat

destruction, ocean pollution, illegal trade, and climate change have resulted in a significant decline in turtle numbers, necessitating sustainable conservation efforts. Indonesia, an archipelagic nation, is home to six of the world's seven turtle species and has numerous conservation areas that play a crucial role in supporting the preservation of these species (Sara Vieira, 2024). One such center contributing to turtle conservation in Indonesia is the Turtle Conservation and Education Center (TCEC), located in Serangan Village, Bali.

This organization creates a conservation approach that involves the community through various activities, such as turtle rehabilitation, egg hatching, hatchling releases, environmental education, and educational tours. The existence of TCEC indicates that conservation efforts are not solely focused on animal protection but also serve as a tool for community empowerment and increasing environmental awareness. However, success in conservation depends not only on ecological factors but also on the sustainability of funding to support various conservation operational activities. Based on observations during the 2026 International Community Service (ICS) event, conservation activities at TCEC still rely on revenue from admission tickets, souvenir sales, and visitor donations. This situation indicates that existing funding sources are still limited, necessitating approaches that can strengthen the sustainability of conservation funding. Advances in digital technology provide opportunities for non-profit organizations to create digital fundraising strategies and social media marketing as options to increase community engagement and secure financial support.

Research (Takahiro Kubo, 2022) shows that the use of social media can improve fundraising efficiency for conservation organizations by expanding information distribution and increasing public participation. Furthermore, social media platforms serve to raise public awareness of environmental issues and strengthen connections between conservation organizations and potential donors (Hanna Kim, 2023).

Although numerous studies have explored turtle conservation and the use of social media platforms in nonprofit organizations, studies combining digital fundraising and social media marketing approaches as a means to support the sustainability of community-based turtle conservation funding are still relatively rare, especially among conservation organizations in Indonesia. Therefore, this research aims to analyze the funding situation at the Turtle Conservation and Education Center (TCEC) and provide digital fundraising and social media marketing strategies as suggestions to support the sustainability of turtle conservation funding.

II. METHODS

This study used a qualitative descriptive approach to analyze the funding situation for turtle conservation and identify digital fundraising and social media marketing strategies that have the potential to support sustainable funding at the Turtle Conservation and Education Center (TCEC). A qualitative approach was chosen because it provides a deep understanding of social phenomena, organizational management strategies, and the challenges faced in maintaining sustainable conservation funding in a natural context (Creswell & Poth, 2024).

The study was conducted at the Turtle Conservation and Education Center (TCEC), Serangan Village, Denpasar City, Bali, one of the community-based turtle conservation centers in Indonesia. The location was chosen purposively because TCEC is a community-based turtle conservation center that actively organizes rehabilitation, education, and conservation tourism activities, while

also facing challenges in maintaining sustainable operational funding. Participant observation was conducted on TCEC's conservation activities, organizational management, and fundraising practices.

Data analysis was conducted using thematic analysis, as described by Braun and Clarke (2022). The analysis stages included data reduction, coding, grouping data into key themes, interpreting results, and drawing conclusions. The themes analyzed included funding sustainability, digital fundraising practices, the use of social media as a marketing tool, community involvement, and opportunities for developing sustainable funding strategies for community-based turtle conservation. To enhance the credibility of the research results, technical triangulation was conducted, comparing information obtained through observation, informal discussions, and documentation. Triangulation aims to increase data validity, thus increasing the trustworthiness of the research results (Tracy, 2020).

III. RESULT AND DISCUSSION

Existing Condition of Community-Based Sea Turtle Conservation Funding at TCEC Bali

Based on observations and discussions with the management, the main funding sources for TCEC come from educational tour tickets, visitor donations, souvenir sales, and irregular support from the government and non-governmental organizations. This dependence on the number of tourist visits causes the organization's income to fluctuate, thus affecting the implementation of conservation activities.

Conservation activities include rescuing turtles injured by fishing activities or marine pollution, animal rehabilitation, egg incubation, egg hatching, hatchling release, conservation education for students and tourists, and empowering local communities as area managers. Field findings indicate that the success of conservation at the Turtle Conservation and Education Center is not only determined by biological aspects, but also influenced by the sustainability of the organization's funding.



Figure 1. Field Observation Activities at Turtle Conservation and Education Center (TCEC), Serangan, Bali

Based on the results of informal discussions with the management, the main funding sources still come from educational tour tickets, direct visitor donations, souvenir sales, and irregular support from the government and non-governmental organizations. This condition causes the organization's cash flow to be greatly influenced by the number of tourist visits.

This situation indicates financial vulnerability. As tourist numbers decline, organizations' ability to fund conservation operations also declines, while operational needs remain constant, such

as providing turtle food, maintaining rehabilitation ponds, maintaining conservation facilities, providing environmental education, and providing labor.

These findings indicate that conventional funding models are unable to guarantee long-term conservation sustainability. Therefore, diversifying funding sources through digital approaches is necessary, allowing organizations to gain public support without relying solely on tourism.

Social Media Marketing as a Driver of Conservation Sustainability

Based on observations of TCEC's social media accounts, content such as hatchling releases, turtle rehabilitation processes, and educational activities were the most frequently published material and received interaction from social media users. This phenomenon indicates that experience-based content can build emotional engagement between conservation organizations and the public.

In the context of nonprofit organizations, emotional engagement is a crucial factor influencing a person's decision to donate. The analysis also shows that most of the Turtle Conservation and Education Center's publications are still documentary-style, thus underutilizing the opportunity to build long-term relationships with potential donors. Recent research indicates that conservation organizations that combine storytelling, strong visuals, audience interaction, and impact narratives have a greater opportunity to increase community engagement on social media. Thus, social media functions not only as a communication channel but also as a social marketing instrument that can build public trust and expand the donor base.

Community Participation in Sustainable Conservation Funding

The Turtle Conservation and Education Center's primary characteristic is its community-based conservation approach. The Serangan Village community serves as conservation managers, educational tour guides, volunteers, and local business owners supporting conservation activities.

Community participation offers several benefits, including enhancing the organization's social legitimacy, expanding collaborative networks, and strengthening a sense of ownership of the conservation area. However, observations indicate that volunteers, tourists, and the community actively document conservation activities through personal social media.



Figure 2. Discussion with TCEC Management during Field Observation Activities

However, TCEC has not yet systematically utilized this documentation as part of its digital promotion strategy. This approach also reinforces the concept of community-driven marketing, where the community is not only the beneficiary of conservation but also a key actor in expanding public support.

Discussion

The results of this study reveal that the greatest challenge faced by the Turtle Conservation and Education Center (TCEC) lies not in implementing conservation programs, but rather in the sustainability of funding. Although TCEC has successfully established a turtle conservation program that engages the community through turtle rehabilitation, environmental education, and conservation tourism, its funding remains largely dependent on admission revenue, direct donations, and inconsistent assistance from the government and other institutions.

This reliance on visitor numbers makes the organization's financial condition vulnerable when tourism declines. These findings indicate that sustainability in conservation is influenced not only by how well species are protected but also by the organization's ability to develop a stable and sustainable funding system. These findings align with a study by (Sara Vieira, 2024), which revealed that the success of community-based conservation requires ongoing social and financial support for conservation efforts to continue. Conservation goes beyond protecting species; it also requires community participation and resource management that can support the organization's long-term sustainability.

Therefore, strengthening the financing aspect is crucial to maintaining the effectiveness of turtle conservation programs. This study also shows that digital fundraising has the potential to be an alternative that can strengthen the sustainability of TCEC's funding. Through digital platforms such as QRIS donations, crowdfunding, online donations via the website, and regular donation programs, the organization can reach more potential donors without relying on tourist arrivals.

These findings support research (Takahiro Kubo, 2022) showing that digital fundraising methods can increase fundraising effectiveness if supported by effective communication and messaging that builds trust and community engagement. In addition to digital fundraising, this study indicates that social media platforms play a crucial role in ensuring the sustainability of conservation efforts. Observations show that TCEC has used social media to publicize its conservation activities, but the focus has been on documentation. However, content presented with a storytelling approach, engaging visuals, and explanations of the tangible impact of each contribution can potentially increase public participation and foster lasting relationships with potential donors.

These findings align with research (Hanna Kim, 2023), which states that social media serves not only as a communication tool but also as a crucial tool for increasing organizational visibility, strengthening community participation, and expanding support networks for conservation organizations.

Based on these findings, this study proposes a model for strengthening sustainability in funding that combines community-driven conservation, digital fundraising, and social media marketing. This approach can be realized by developing digital campaigns that focus on storytelling, increasing educational content on social media platforms, implementing a digital donation system, and engaging volunteers and tourists as digital ambassadors to naturally expand promotion.

This model not only has the potential to improve the sustainability of TCEC's funding but can also serve as a reference for other conservation organizations in Indonesia facing similar challenges in creating more independent and sustainable funding systems.

IV. CONCLUSION

This study reveals that the main challenge faced by the Turtle Conservation and Education Center (TCEC) lies in the sustainability of funding sources, not in the implementation of conservation activities. Funding sources still rely heavily on visitor numbers, direct donations, and unreliable government support. This situation has led to financial instability for the organization, potentially impacting the sustainability of its turtle conservation programs.

The findings of this study suggest that implementing digital fundraising and social media marketing strategies can be a solution to strengthen the sustainability of conservation funding. Increasing the use of social media through storytelling, digital campaigns, a QRIS donation system and crowdfunding, and community involvement as digital ambassadors can expand public reach and increase participation from potential donors. This study recommends that TCEC begin developing a digital fundraising strategy integrated with social media marketing efforts to build a more independent and sustainable funding system.

The proposed model will not only benefit TCEC but also serve as a reference for other community-based conservation organizations in Indonesia facing similar challenges.

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REFERENCE

- Atikah NURHAYATI, P. K. (2022). THE ROLE OF SEA TURTLE CONSERVATION EDUCATION FOR SUSTAINABLE MARINE TOURISM BASED ON BIO-ECOREGION (CASE STUDY IN BALI, INDONESIA) . *GeoJournal of Tourism and Geosites* .
- Dwi Yoso Nugroho¹), J. T. (2025). PARTISIPASI MAHASISWA PARIWISATA DALAM PEMASARAN DIGITAL DAN DAYA TARIK WISATA PENANGKARAN PENYU BALI. *Jurnal Education and development* .
- EDI SUSILO ^{1*}, A. A. (n.d.). THE TURTLE CONSERVATION AND EDUCATION CENTER (TCEC)'S ROLE IN BALINESE COMMUNITY TRADITIONS' TURTLE USE. *The Seybold REPORT* .
- Hanna Kim, P. R. (2023). US-based and international environmental nongovernmental organizations use social media, but few have large audiences online. *Conservation Science and Partice*.
- Manggar Adisha Pamungkas ^{*}, A. S. (2025). Pemanfaatan Instagram @pangumbahanturtlepark dalam Mempromosikan Wisata Konservasi Penyu Pangumbahan . *Bandung Conference Series: Communication Management* .
- Raditya Hafizhan Syaputra¹), S. B. (2025). Analisis Keberlanjutan dan Kinerja Aktor dalam Tata Kelola Program Konservasi Penyu di Turtle Conservation and Education Center (TCEC) Bali . *Journal of Global Sustainable Agriculture*.

- Sara Vieira, V. J.-A. (2024). Perceived social benefits and drawbacks of sea turtle conservation efforts in a globally important sea turtle rookery. *Biodiversity and Conservation*.
- Takahiro Kubo, H.-F. Y. (2022). Conservation fundraising: Evidence from social media and traditional mail field experiments. *Conservation Letters*.