



Raising Community Participation in Sustainability Project: A Study on Communication Strategy of Permayouth in Action Program in Timor-Leste

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Abstract. Timor-Leste is one of the countries affected by climate change and vulnerable to natural disasters such as droughts and soil erosion. Some areas in the country also still face limited access to water resources. This situation encourages the involvement of non-governmental organizations like PERMATIL, which implements various efforts such as water and soil conservation through the Permayouth in Action program. However, local community participation in this program is still considered low. Using an explanatory case study method, this research aims to examine the communication strategies used by PERMATIL in promoting community participation from the perspectives of the Communication for Social Development. Data collection techniques included interviews, FGDs, and field observations. The results show that the communication strategies implemented by PERMATIL to increase community participation in Timor-Leste encompass information, education, and communication. The finding shows that information that is more critically related to the root problem of climate change is needed to complete the practical knowledge that the society has. Education that is more consistent and structured is needed to encourage a more sustainable effect on the society. Face-to-face communication is still the main communication model that is effective, while integrating with culture and inducing word of mouth are also the keys to creating the discussion on climate action amongst youth.

Keywords: communication for social development, climate action, developing-countries, ecosystem restoration, youth participation

1 Introduction

Speaking of climate change in Southeast Asia, Timor-Leste is one of the countries most vulnerable to its impacts, such as droughts, floods, and others [1]. As an agrarian country with over 70% of its population dependent on the agricultural sector, climate change has a direct impact on people's livelihoods and food security [2]. The availability of water resources also remains a significant issue in some areas, especially during the dry season.

Additionally, in the field of communication, Timor-Leste faces various challenges [3]. Limited access to information and differences in how people access information.

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In urban areas, people tend to access television more, while in rural areas, radio remains the primary medium used [4]. The use of social media in Timor-Leste is also still limited [5]. Facebook has become the most dominant platform compared to other social media, with a user base reaching 84.46% of the total social media users [6]. Not only that, but there are still local communities who do not have good literacy skills, such as being unable to read and write [7].

In this context, communication plays an important role in raising public awareness and encouraging participation in addressing the situation. However, existing research on youth participation in sustainability initiatives often emphasizes only visible forms of engagement, such as activism or digital mobilization, and abandons culturally embedded community-based participation [8]. According to Rogers, Communication for Development serves to raise awareness, shape behavior, and promote social change through the active participation of the community [9].

One of the non-governmental organizations actively involved in sustainability efforts is PERMATIL, which stands for Permaculture Timor-Leste. Since 2000, PERMATIL has implemented various sustainable programs focusing on water and soil conservation, organic farming, and empowering local communities through one of its flagship programs, Permayouth in Action, which aims to educate and involve community participation, especially for the younger generation, in sustainable agriculture and water and soil conservation activities [10]. Despite this, public participation in this program is still considered low. The lack of awareness and understanding regarding climate change, as well as challenges such as limited communication access that has not been fully addressed, are factors contributing to low community participation [11].

This research aims to examine the communication strategies PERMATIL has been using, particularly in their program Permayouth in Action. By focusing on culturally based programs in low-resource situations, this study also seeks to understand how participation is shaped through communication process relationships, not just formal mobilization structures [12]. The goal is to understand their past communication approaches and see if they align with the principles of communication for development, which aims to raise awareness, shape behavior, and drive social change through active community participation.

The results of this study contribute to enriching the study of social development communication, particularly in the context of countries facing structural and environmental challenges like Timor-Leste. In addition, this research is also expected to provide strategic recommendations for various parties, ranging from NGOs and policy-makers to actors involved in sustainable development. The knowledge gained from this research is expected to contribute to the development of communication for sustainability programs, especially in the context of climate change.

The results of this study will be written in the structure outlined below. First, we will examine how the literature review relates to the concepts of communication for social development, which are the main perspectives for viewing the existing communication issues. Next, the methodology used, namely a case study with a post-positivist paradigm, will be described in detail, along with an explanation of how the data was obtained. Finally, the research results will be directly discussed with existing concepts to find new knowledge and enrich the existing conceptual discussions. This section will

also discuss communication barriers encountered in the Permayouth in Action sustainability program, with the hope that it will provide a more complete picture of communication issues in sustainability programs in Timor-Leste. In conclusion, recommendations will be provided on what can be done to improve communication strategies for sustainability programs, particularly those related to climate change.

2 Literature Review

2.1 Communication for Social Development

According to Everett Rogers, development communication plays a role in driving the process of social change through active community participation. In this context, development is seen as a process of social transformation that directly involves the community with the goal of creating progress both socially and materially [9].

Meanwhile, Mathur in [9] emphasized that development communication and social change must be carried out in a planned and conscious manner. Communication is aimed at raising public awareness of the social problems they face, as well as motivating them to participate in their resolution. When society becomes aware of a problem, that awareness can be a catalyst for active involvement in finding solutions.

Mathur also outlined three main components of development communication that are used in an integrated manner to increase public awareness and understanding of development issues, namely: (1) Information, this includes the dissemination of technical and statistical data to raise awareness among government, non-governmental organizations, and the public about existing social issues, (2) Education, aims to deepen individuals' understanding of a social issue within a specific timeframe. Through this process, the community is invited to understand the root causes of the problems and their impact, enabling them to respond more appropriately, and (3) Communication, serves to increase knowledge, encourage attitude change, and shape the public's voluntary behavior toward development issues faced.

Thus, this research approach can examine what development communication PERMATIL is doing, both in terms of information, education, and communication in encouraging the involvement of the people of Timor-Leste in the Permayouth in Action program.

3 Research Methods

This research aims to deeply understand both community participation in the Permayouth in Action program and the communication strategies implemented by PERMATIL in Timor-Leste. With a qualitative approach, researchers can explore the meanings, experiences, and direct perspectives of the relevant parties in their environment [13]. The nature of this research is descriptive, aiming to detail the communication strategies of PERMATIL and the forms of community participation in the Permayouth in Action program. The focus is not on finding new issues, but on understanding the existing situation, starting with the problem of low public participation in the program [14].

This study aims to deeply examine PERMATIL's communication strategies in increasing community participation through the Permayouth in Action program. By using the explanatory case study method, this research can uncover complex communication activity sequences and understand how specific processes can deeply influence an organization's outcomes. Data collection techniques were carried out through in-depth interviews, FGDs with selected informants, direct observation of conservation activities, and documentation. The data was also supplemented with some documentation and direct observations of field activities [15].

This research also uses triangulation techniques to compare and strengthen data from various sources such as interviews, observations, documentation, and FGDs, resulting in more accurate and comprehensive findings. The data was then analyzed using pattern matching techniques, comparing the findings in the field with the concepts of Communication for Social Development. The alignment between the field data and the conceptual framework helps clarify the understanding of PERMATIL's communication strategies and community participation in the Permayouth in Action program [15].

4 Results And Discussion

4.1 The Role of Information in Public Awareness

In the concept of Communication for Social Development, information plays an important role in raising awareness of development issues [16]. The more information received, the greater its influence on a person's knowledge and awareness, which can ultimately drive behavioral change [17].

The results show that PERMATIL disseminates information about climate change as an initial step in raising awareness among the people of Timor-Leste, to encourage their participation in addressing the issue. Awareness and information related to climate change can be the basis for developing adaptation and mitigation strategies [18]. The dissemination of important information is done because many people still do not understand that natural disasters are the impact of climate change due to human activities [19]. In line with this, PERMATIL recognizes that people often only understand climate change from their daily experiences without scientific understanding. Therefore, information is used as a basis for raising awareness, which can ultimately encourage active participation in environmental programs. This indicates that the information function is not only as a transmission of knowledge but also as a basic mechanism to enable the active role of communities in sustainability initiatives [20].

PERMATIL also disseminates other information supporting sustainable development, such as water conservation guides, local practices, and traditional knowledge, including in the Permayouth in Action program on Atauro. Information about local traditions is shared to strengthen the community's connection to the environment. The importance of combining technical knowledge, local wisdom, and community participation to enhance resilience to climate change [21].

PERMATIL has implemented an information dissemination strategy that focuses not only on climate change but also on distributing technical guidelines and considering local social and cultural aspects before involving the community in the Permayouth in

Action program. This step is important because the information can broaden the understanding of the people of Timor-Leste, strengthen their commitment to sustainable development, and thus encourage their participation in the program being implemented.

Mass media plays an important role in disseminating information to broaden public insight and knowledge, which in turn can support development in various regions [22]. This aligns with the strategy implemented by PERMATIL, which also utilizes mass media to disseminate information with the aim of raising awareness and encouraging the participation of the people of Timor-Leste in its programs, including the Permayouth in Action program.

Mass media such as television and newspapers are important in reaching a wide audience [23]. Television and radio are effective in increasing public awareness and participation because they can reach remote areas, are flexible in broadcast time, and are easily accessible diakses [22]. This finding aligns with PERMATIL's practice of utilizing mass media to disseminate information about its programs, including thru television channels such as RTTL, GMNTV, Lafaek News, as well as local radio in Ermera, Liquica, and Dili, in order to reach more people quickly and widely.

In Timor-Leste, television is more widely accessed than radio, including in rural areas. Despite this, radio remains important in areas not yet reached by television services, with 65% of the population accessing television and 32% still relying on radio [24]. This finding reinforces the relevance of PERMATIL's mass media strategy, where television can be the primary channel for reaching a wide audience, while radio remains effective for reaching people in remote areas.

According to Tandoc and Eng, social media is now the primary means of disseminating information about climate change because it can build conversations and encourage real action [25]. Social media plays an important role in raising public awareness and engagement with sustainability issues [26]. Platforms like Facebook, Twitter, Instagram, and LinkedIn can expand the reach of information, encourage participation, and strengthen collaboration in support of sustainable development goals [27].

The research found that PERMATIL utilizes Facebook as one of its main platforms for disseminating information, such as activity documentation, announcements about the Permayouth in Action program, and other environmental issues, thru the "Permatil" account. This strategy allows their message to reach a wider audience and encourages public participation. According to data [6], approximately 84% of social media users in Timor-Leste use Facebook, making it an effective tool for PERMATIL to raise public awareness and participation in sustainable development.

Information needs to include technical and statistical data used to raise awareness of important issues among governments, non-governmental organizations, and the public [16]. The dissemination of information often faces various limitations, as available data may not always cover all the essential aspects needed for a thorough understanding of the problem [28].

This is also evident in the context of disseminating information about climate change in Timor-Leste. To date, information about climate change in the country is still limited, making it difficult for the public to deeply understand its impact. Although some data

is available thru various international portals, this information often does not specifically cover how climate change affects local communities or how effective the adaptation and mitigation measures taken have been [29].

The research results also show that PERMATIL has similar weaknesses. PERMATIL is too focused on disseminating resilience issues such as water conservation or sustainable agriculture, but does not adequately address the root political problems of climate change, such as the role of major countries that cause environmental damage. If these root problems are not clearly discussed, it will be difficult to build a strong community movement to face climate change.

On the other hand, it is crucial for society to deeply understand the impacts of climate change because these impacts not only threaten human life but also damage ecosystems, worsen extreme weather conditions, and increase the risk of conflict between humans and wildlife [30].

Additionally, climate change also threatens food security, exacerbates natural disasters, and increases public health risks. Therefore, PERMATIL needs to consider expanding the information data provided, including discussing the structural causes of climate change such as the impact of global policies and the role of major industrialized countries, so that the public has a more complete understanding, thereby encouraging stronger participation.

The research results also show that PERMATIL not only disseminates information to the public but is also actively gathering information from the community as a basis for designing targeted programs. The information obtained covers various issues faced by the community, as well as the resources available to address challenges such as climate change. This process is carried out thru various participatory methods such as Focus Group Discussions (FGDs), direct interviews, and questionnaires.

PERMATIL also leverages local community networks such as Permayouth Movimento Konservasaun Bee no Rai (MKBR), or the water and land conservation movement, as an important source of information regarding field conditions. This approach serves as the basis for program planning without the need for direct surveys in every area, and its purpose is to gain a deeper understanding of community needs and develop action plans that are appropriate for local conditions. The importance of utilizing the community as the main communication channel is because it can help achieve the predetermined goals [31].

4.2 Educational Activities in Promoting Awareness and Participation

Education is an important component in supporting development and social change [16]. Educational approaches such as training and outreach play a significant role in raising public awareness and skills related to sustainable development. These educational programs have proven effective in encouraging participation and building public understanding of the importance of sustainable practices [32].

The results show that seminars or workshops on climate change are one of the educational approaches used by PERMATIL, with the aim of increasing public understanding of the impacts of climate change, thereby enhancing the participation of the people of Timor-Leste in sustainability projects.

Additionally, educational content such as videos about climate change can also encourage people to be more active in supporting sustainability projects by adopting more responsible daily practices [33]. The seminars conducted by PERMATIL are often held directly in various villages in Timor-Leste. During these seminars, PERMATIL also frequently shows educational videos and introduces programs like Permayouth in Action to inspire community participation. The results show that participation from some community members in the Permayouth in Action program was based on the seminars held in the villages.

Thus, the educational approach taken by PERMATIL thru seminars or workshops, not only aims to increase public understanding of climate change but also to encourage them to take concrete action in supporting sustainability projects.

Learning by doing is the approach used when PERMATIL conducts training on water, soil conservation techniques, and water channel retainers. This training is divided into two types: general training and group-based training. General training covers learning all three techniques in a general manner. Group-based training covers the specific learning of each technique based on the participants' groups before field practice. The training activity was conducted thru the Permayouth Camp program, which is held every two years at the provincial level and once a year at the national level.

PERMATIL has developed various effective educational approaches, but some of these approaches still face challenges in terms of sustained and structured consistency. The results show that activities such as seminars, workshops, and others are often conducted informally or only when there is an opportunity, without a clear strategy to ensure long-term impact. On the other hand, the learning-by-doing approach used in the soil and water conservation techniques training still faces challenges in time management, such as the absence of clear duration limits and the lack of a timekeeper to ensure each session runs on schedule. This can lead to training sessions running without effective time control, potentially decreasing participant concentration.

According to [NO_PRINTED_FORM] [34], sustainability requires systemic change thru consistent and structured strategies, not unsustainable short-term approaches. To achieve more optimal sustainability, PERMATIL needs to be more consistent and structured in implementing its educational programs so that the expected long-term impact can be achieved.

4.3 Communication Strategies in the Permayouth in Action Program

Communication is a key component in driving social development [16]. The importance of communication in any sustainable strategy, both internally and externally [35]. This is reflected in the PERMATIL strategy, which builds effective communication between internal teams and external parties such as local authorities and the community, to strengthen collaboration and increase participation in the Permayouth in Action program.

Face-to-face communication using the local language is an effective approach to encouraging community participation, as it can build social relationships and strengthen cultural ties. Using the local language makes the message easier to understand, while direct communication allows for two-way interaction that enriches the process of joint

decision-making [36]. Face-to-face communication is more effective in building closeness, increasing persuasion, deepening understanding, and fostering cooperation [37].

The research results indicate that face-to-face communication is one of the main approaches used by PERMATIL in interacting with local authorities and the community. The use of this communication allows for immediate responses to complaints or questions that arise in the field. This approach is also used to reach communities with limited literacy, such as those who cannot write or read, so that the message conveyed can be more easily understood, especially when using the local language.

Local authorities play a crucial role in promoting sustainability at the community level by organizing and facilitating community participation [38]. PERMATIL is also actively building communication with local authorities such as regional governments and tribal chiefs. Communication is conducted both directly and thru official invitation letters as an initial step to announce the program. The goal is to gain support and assistance in mobilizing the community to participate in Permayouth in Action activities.

The research results indicate that PERMATIL relies more on Word of Mouth (WOM) as its primary communication channel compared to mass media such as television or radio. WOM is considered more suitable for reaching the local community because information delivered thru family, friends, or community leaders is perceived as more trustworthy and easily accepted. Additionally, WOM allows for direct dialog, which strengthens social connections and improves public understanding. While mass media does have a wide reach, its one-way nature is considered less effective in building deep communication at the community level.

In Timor-Leste, culture is not just something to be observed from afar, but an experience that is felt, shared, and lived together by the community every day. From sacred rituals and traditional weaving to communal life and festive celebrations, culture here is deeply intertwined with the rhythm of daily life [39].

Communities in Timor-Leste still practice culture- and ritual-based communication, such as the hamulak ceremony and animal sacrifices, as a form of spiritual communication to maintain harmony between humans and nature, especially when facing disasters or extreme weather [40]. PERMATIL's strategy also incorporates cultural communication and rituals as an important part of their approach, as these can strengthen social bonds and are relevant to local cultural values that are still highly regarded by the community.

PERMATIL took this approach by involving ritual leaders, known as Lia Nain, in various activities of the Permayouth in Action program. The involvement of Lia Nain was considered important because they are seen as a means of communication between the human world and the ancestral world, and they ensure that every activity undertaken has received spiritual blessing. The ritual involves hamulak, or praying, as well as animal sacrifices such as pigs, which are believed to be a form of honoring ancestors and nature. This ritual approach also aims to seek permission to prevent natural disasters during the Permayouth Camp activities, making the community feel safer and more actively involved. Additionally, the purpose of this ritual is to ensure the activity location has been spiritually sanctified, and to quickly strengthen community involvement, as people are more likely to participate when they feel the activity has deep cultural significance.

In the context of digital communication, PERMATIL utilizes the WhatsApp platform and live discussions as a means of communication and consultation space with the public, each with their own objectives. Discussion is one of the main tools used in implementing the Permayouth in Action program, especially in activities that take place directly in the field. This discussion serves as a consultation space where participants are encouraged to be more actively involved, both in training sessions and in practice. Participants were given the opportunity to ask questions, provide feedback, and offer criticism directly. Additionally, this platform also serves as an additional means for consultation in the form of groups. This WhatsApp group is used as a communication medium managed by province to facilitate coordination and information updates. This group serves as a platform for sharing program developments, production results, and the challenges faced after the program concludes.

Regarding communication, one of the communication challenges is the reliance on face-to-face communication and word of mouth (WOM). Although this approach is effective in building personal relationships and ensuring the message is clearly received. However, this type of communication requires more time, effort, and physical presence, which can be hindered by weather factors or difficult-to-access geographical conditions, thus affecting the smooth dissemination of information to the wider public. Additionally, the motivation of hoping to receive incentives for participating in this program was also found, which hindered community participation.

5 Conclusion

This research aims to examine the communication strategies used by PERMATIL to increase community participation in the Permayouth in Action program. The communication for social development perspective is used to analyze the communication strategies implemented. In general, what PERMATIL has done is able to reach the wider community and raise awareness among the people of Timor Leste about climate change and natural resource conservation issues.

The main finding of this study is that information, education, and communication strategies were implemented by PERMATIL to encourage the participation of the people of Timor Leste in the Permayouth in Action program. Mass media and social media, especially Facebook, are becoming channels for disseminating information related to climate change issues, water conservation, and traditional knowledge on these topics, although this is still limited to local data and global political factors. Education is delivered through seminars, workshops, video screenings, and hands-on training using the learning-by-doing method. Communication is done more face-to-face and using the local language, with a cultural and ritual approach, and relying on the spread of word of mouth. Although there are other forms of communication such as through digital media, the dependence on face-to-face communication poses its own challenges.

From this research, it was found that face-to-face communication is still the most effective way to build active participation from the people of Timor Leste, especially on sustainability topics. Nevertheless, the participatory process needs to be improved so that the community feels that this program is not just for certain parties, but a joint

effort that is closely related to their livelihoods. Additionally, other challenges such as societal expectations for material incentives also serve as barriers to further participation. The limited critical narrative surrounding the structural roots of climate change also hinders a sense of ownership of the program, as the public has not fully grasped the urgency of the program. This suggests that strengthening participatory communication should focus not only on expanding information delivery but also on fostering youth agency as active interpreters, decision-makers, and co-creators of sustainability initiatives.

As a recommendation for similar sustainability programs in Timor Leste, it is suggested that the educational program be more structured, consistent, and address the structural roots of climate change. Local technical narratives are important, but it's also necessary to build public critical awareness. Next, communication channels need to be diversified, such as through simple audio and video content, which complements the face-to-face communication that has already been done. Finally, it is important to strengthen inclusive and empowering participation by paying more attention to vulnerable groups and providing support for post-program initiatives with technical assistance and ongoing communication spaces. This needs to be done so that community participation can continue independently while maintaining its contextuality in each region.

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