



# COMMUNICATION OF WOMEN'S PARTICIPATION IN THE PRESERVATION AND MANAGEMENT OF SUSTAINABLE FOREST RESOURCES IN TAHURA WAR LAMPUNG PROVINCE INDONESIA

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## ABSTRACT

The massive collection of non-timber forest products has led to around 80% of the land in Wan Abdul Rachman Forest Park (Tahura WAR) being controlled by the community. This has resulted in an increase in the rate of deforestation and damage to the forest canopy. Forest sustainability is one of the unresolved problems throughout Indonesia, the rate of forest destruction is higher than the preservation or planting of trees. Likewise in Lampung Province, the basic problem is the increasing population growth so that there are needs that must be met, while the availability of land does not increase. However, ecological impacts are not the only aspect of concern. Related to this, gender issues are also a serious concern in the context of agricultural and plantation expansion. Research has shown that there are significant gender differences in terms of dependence on forests for livelihoods and intended use of forest resources. Women in the KTH Tahura WAR have a role as those who do not directly benefit from the forest. Many women do not enter the forest and manage the land directly, but rather process a small portion of forest products into finished products with limited marketing. This research aims to analyse women's participatory communication in the preservation and management of sustainable forest resources in Tahura Wan Abdul Rachman, Lampung Province. The research method used in this study is qualitative ethnographic communication, which focuses more on social reality in the process of interaction between individuals in carrying out daily activities. The results showed the existence of participatory communication with four dimensions of participatory communication, namely heteroglasia, dialogue, polyponni, carnival. In the efforts to conserve and manage forest resources carried out by women around the forest, they have an important role as part of the non-timber forest product collection actors. Although women's participatory communication in the utilisation of forest resources is still minimal, researchers provide two important contexts to complement inclusive participatory communication, namely collaboration and cultural expression in forest resource manageme

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## 1. INTRODUCTION

Forests are one of the most valuable natural resources on the planet. Not only are forests a refuge for many species, they are also critical to maintaining the overall balance of the ecosystem. According to research, forests cover

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nearly 30 per cent of the Earth's land area (Keenan et al., 2015), contain 80 per cent of terrestrial biomass and provide habitat for more than half of the world's known terrestrial plant and animal species (Aerts and Honnay, 2011). However, the condition of forests in recent decades has become increasingly worrying as forest environmental degradation continues to worsen.

Tropical forest loss currently exceeds forest gain, causing net greenhouse gas emissions that exacerbate global climate change (Jones, 2020). According to UN Food and Agriculture Organisation data, 5.5 million ha of tropical forests were cut down annually between 1990 and 2015, and other estimates suggest that losses may be much higher and accelerating (Keenan et al. 2015). The main driver of deforestation is the expansion of agriculture and plantations, with around one-third of carbon emissions contained in international trade (Pendrill et al. 2019).

Forest sustainability is one of the unresolved problems throughout Indonesia, the rate of forest destruction is higher than the preservation or planting of trees. Likewise in Lampung Province, the basic problem is the increasing population growth so that there are needs that must be met, while the availability of land does not increase. In the end, to fulfil their needs, people are forced to clear new land around the forest.

The significant threat of deforestation experienced by Lampung Province is due to illegal logging, and illegal agricultural activities are the main factors that cause forest destruction. Deforestation is not only detrimental to biodiversity, but also has a negative impact on water management, climate change, and increased risk of natural disasters. Lampung is one of the important agricultural producing provinces in Indonesia. However, population growth and increased food demand have led to the conversion of forests into agricultural land. Clearing forests to make way for new farmland leads to habitat loss for flora and fauna, and increases the risk of floods and landslides.

The Wan Abdul Rachman Grand Forest Park (Tahura WAR) is located in Lampung Province, Indonesia, and is one of the important areas for conserving biodiversity and protecting natural ecosystems. Administratively, Tahura WAR covers seven sub-districts spread across Bandar Lampung City and Pesawaran Regency, namely Teluk Betung Barat, Tanjung Karang Barat, Kemiling, Kedondong, Gedong Tataan, Way Lima, and Padang Cermin. Around 40 villages are located around the Tahura buffer zone. With a topography that varies from light to heavy waves, the area also includes four mountains: Mount Pesawaran, Mount Rantai, Mount Tangkit Ulu Padang Ratu, and Mount Betung.

In recent years, Tahura WAR has faced serious threats in the form of alarming forest destruction. This damage has a negative impact on the environment and the wildlife within it. However, ecological impacts are not the only aspect of concern. Related to this, gender issues are also a serious concern in the context of agricultural and plantation expansion. Research has shown that there are significant gender differences in the dependence on forests for livelihoods and the intended use of forest resources. Women's and men's involvement in forest utilisation is often uneven, with men tending to dominate valuable resources such as high value timber (Aguilar et al. 2011; FAO 2015; Agarwal 2009 in Marin, 2017). This gender gap does not only stem from individual choices, but is also influenced by social and cultural factors. Women's limited access to land and resources, as well as their lack of participation in environmental decision-making, further exacerbates this inequality.

Women generally have lower access to land use and ownership, financial capital, and information compared to men, and women are also often faced with the additional burden of taking care of households and childcare in addition to agricultural responsibilities (JosC et al., 2016). As happened in the Forest Farmer Group (KTH) in Tahura WAR, women have not been an important part because there are 153 groups recorded in the forest farmer group, there are no women as group leaders and only as members. Women in forest farmer groups have not been prioritised, they are mostly only as complements. In other portions, as wives who take part, their role is more related to household chores.

There is a different division of labour in the role of farmers in KTH WAR in the utilisation of forest resources. Most men have more roles, namely as forest cultivators. Women as utilisers of forest products are processed into goods that can be sold. Women have more domestic roles in taking care of the household. This happens in the KTH Tahura WAR, many women are only wives who wait for their husbands to return from the forest. Their usefulness as part of forest management is very small.

An important factor to note is the inequality of benefits received by women in this context. Women in the KTH Tahura WAR have a role as parties who do not directly benefit from the forest. Many women do not enter the forest and manage the land directly, but rather process a small portion of forest products into finished products with modest marketing. For example, the wife of Mr Zarkowi, Mrs Nur Listiari, processes nutmeg bark into syrup, but only when there is an order. The data shows that women only receive a small portion of the benefits from forest and tree resource management. This is in line with the findings of Agrawal and Chhatre (2006), which indicate that women are often sidelined in benefit sharing and not actively involved in decision-making related to these resources. This condition not only harms women directly, but also has a negative impact on the sustainability of the environment and society as a whole.

Empowering women forest farmers is an important element in development agendas such as sustainable land and forest management (Kinati et al., 2022). Existing literature has focused on identifying factors that accompany



empowerment, ignoring the importance of understanding the types of empowerment resources (Jones et al., 2019; Okpara et al., 2019).

Women's participation in income-generating activities is not only a key avenue for realising women's empowerment (Akram et al. 2015; Huluka 2022), but also has a significant impact in the context of environmental and natural resource protection. Communication plays a central role in connecting different parties to their roles and interests in environmental protection efforts. Using the concept of participatory communication, effective collaboration can be built among stakeholders, making it possible to jointly address issues of environmental degradation and achieve greater goals.

Participatory communication in natural resource management is not just a set of techniques to get people to change their knowledge, attitudes and practices, but people must voluntarily engage in natural resource management activities as part of the process to gain a critical understanding of why they are doing so. (Kheerajita et al., 2013). The communication process is not only a means of solidarity but also a foundation for realising effective cooperation to overcome the problem of environmental damage. In this case, the concept of participatory communication emerges as the key to building collaborative networks between stakeholders.

Based on the above problems, research was conducted with a target group of women from villages around the Tahura WAR. The things that underlie the implementation of this research, namely, firstly the small level of communication of women's participation around the forest so that massive activities occur that increase the rate of deforestation and cause the risk of socio-ecological crises. Tahura WAR of Lampung Province is part of a forest ecosystem area that is home to endemic tropical rainforest flora and fauna, a stronghold for protected and endangered wildlife sanctuaries, and a natural flood barrier.

Second, the lack of women's participatory communication on access to information and utilisation of forest resources, even though the role of women is very impactful in promoting the sustainable development agenda and women's involvement in environmental issues will encourage the fulfilment of human rights not only for themselves but also for future generations and the environment more broadly. Third, there needs to be a series of capacity building that will consolidate the communication of women's groups and encourage the economic agenda. In addition, this research will emphasise the importance of women's participatory communication in discussing forest management.

## **2. METHODOLOGY**

This research uses a qualitative method with a communication ethnography approach. The ethnographic approach observes the social, cultural, and behavioural aspects of a person or group of people in the context of their native culture (Cresswell, 1998). Ethnography is closely related to communication and focuses on the study of communication behaviour in a society. Ethnography refers to a scientific method used to describe and understand the culture, daily life, and social interactions of a human group.

This research chose the realist ethnography method because it places the researcher in a third-person perspective and must act as objectively as possible. The selection of this method is expected to reduce the researcher's bias as part of the culture under study. In addition to these reasons, the researcher intends to study the life behaviour of certain groups of people in an effort to apply the existing culture. Ethnographic research on women's values was conducted to explore in depth the understanding and meaning of symbols and interactions between these symbols related to the lives of women around the forest.

This research was assisted by key informants, namely the head of UPTD Tahura Wan Abdurahman, Mrs Eni Puspasari. Eni Puspasari selected six women from KTH wives who could provide information on forest sustainability and utilisation. The six informants were then consolidated with Mrs Rini as the extension coordinator. In addition to the six informants, there are two community leaders in the village around the forest, namely the head of Cilimus village and the head of the SHK Lestari farmer group, Mr Agus Guntoro.

## **3. DISCUSSION**

### **1. Forest group character and cultural background**

In this study, forest farmer groups in the Wan Abdul Rachman Grand Forest Park are an important part of forest conservation because almost 80% of the forest area has been cultivated by them so that involvement in conservation is needed. Their involvement in forest management and conservation is key to maintaining environmental sustainability and community welfare. The involvement of forest farmer groups not only impacts forest conservation directly, but also helps strengthen local community involvement in environmental conservation efforts.

**Table 1 Cultural characteristics of forest cultivators**

Cultural background	Character traits of forest farmers
Java	For the Javanese, there are usually a lot of plants in one area. Javanese culture is that when people harvest, I also harvest.
Sunda	Sundanese tribes with mlinjo plants usually make small balongs to keep fish.
Sumendo	The Semendo tribe usually grows coffee plants that can be harvested once a year.

Profiles of women in forest farmer groups, both as part of the group and as wives of forest farmer group members.

**Table 2 Women farmer group informants**

No	Nama	Usia	Desa	KTH	Status
1	Nurlistiyari	49	Hanura	Karya Mukti	menikah
2	Zubaidah	48	Cilimus	Sinar Banten	menikah
3	Rosmawati	49	Cilimus	Sinar Banten	menikah
4	Manisah	48	Bogorejo	Wana Karya	menikah
5	Ketut fitriasih	50	Bogorejo	Wana Karya	menikah
6	Rafiah	47	Pinang Jaya	Maju Lestari I	menikah

Participatory communication is a communication process where there is two-way communication or dialogue, resulting in a common understanding of the message conveyed. Participation has long been seen by development experts and practitioners as an important element that enables poor and marginalised groups to exert influence over institutions and decisions that greatly affect their lives (Mayoux, 1995). Particularly in the forestry sector, participation is seen as a pathway to improved governance, promoting sustainable utilisation and management, while increasing benefits and livelihood opportunities. Whether women's participation in forest management facilitates sustainable utilisation or improves livelihoods is still a matter of debate. The factors that determine women's participation are important because forestry reforms in many developing countries explicitly aim to increase the participation of marginalised groups in decision-making processes such as forest management (Mai et al., 2011).

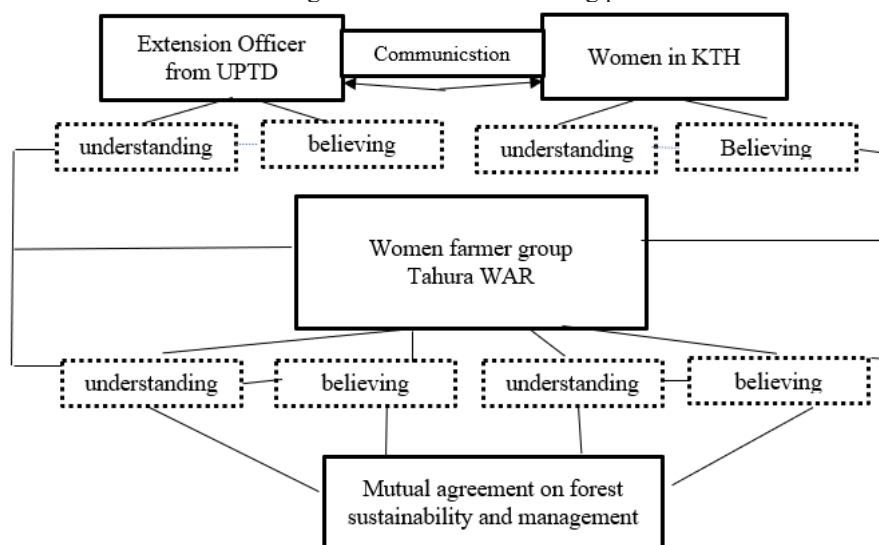
In participatory communication that runs as part of environmental communication broadly involves components in the elements of communication, among others as follows:

**Table 3 Environmental communication in efforts to manage forests**

Source sender/creator of the message.	The government through the delegation UPTD	Extension workers as facilitators and women from KTH
encoding	Formation of message (symbol)	Environmental message: nature/forest preservation
message	Information on forest preservation and utilization in accordance with regulations Information, symbol, verbal/nonverbal, something that is conveyed/sent/directed.	Environmental Communication, Community Empowerment
channel	Channels used	Group, and inter-personal
decoding	Interpreting messages (interpreting, deciphering, unlocking, making sense of, understanding, etc.).	Actively manage with form: Forest farmer groups understand the message of conservation forest form with agroforestry. High canopy of 400 trees.
receiver	Message receiver,	Forest farmer group
feedback	Feedback, the reaction returned	KTH conserves forest sustainability
context	Situation, condition, environment	Active in sustainable forest management
Noise	Gangguan, hambatan	behavior of KTH, which still has not planted many high canopies because they feel that they have been in the forest longer. Illegal logging is not

		carried out by the community around the forest.
Effect	Attitudinal / behavioral impact (cognitive, affective, conative / psychomotor)	Understand (realize), feel, act to conserve because of the importance of water sources coming from conservation forests

An overview of convergent communication taking place:



## 2. Communication relations in the participatory communication dimension of women in forest management

The continuity of communication that occurs in efforts to conserve and manage forests, is carried out in dimensions including:

### a. Heteroglasia

The communication between the extension workers and the women in the forest farmer group shows the diversity of the cadres, including age, gender, education and occupation. Forest farmer groups consist of farmers who have different cultures, some are Sundanese, Javanese, Semendo and Lampung. Each tribe has a distinctive shape or pattern of gardens planted in the forest area. This is also the case with communication between extension workers and forest farmer groups.

The heteroglasia diversity of the members of the forest farmer group is quite evident in terms of age and education, although the majority of those involved are older people with education levels of mostly elementary and junior high school graduates, only a small number of whom can get high school and undergraduate education. Diversity is less varied in occupation because all members of the forest farmer group work as forest area farmers. As expressed by Nurul Istiana, Head of Cilimus Village.

Meanwhile, the role of women in forest management is still minimal, although there is no gender discrimination. KTH members are still dominated by men, especially for garden management activities in forest areas. The role of women is usually more in the utilization of forest products processed into finished goods. In addition, the role of women can also be seen during mutual cooperation activities, such as providing dishes. Women and children are not involved in strenuous activities.

### b. Dialog

Dialogue is an interaction that occurs between the listener and the speaker or between the meeting leader and the meeting participants as a whole. The meaning of dialogue is to recognize and respect other speakers or other voices. In dialog everyone has the same right to speak or to be heard, and expects that his or her voice is not suppressed by others or lumped together with the voices of others. Meeting participants or cadres are not just present, filling in the attendance list and being listeners during the meeting. They physically meet each other face-to-face between male and female cadres and assistants.



Communication (dialogic) efforts have been made by women in the forest farmer group (KTH). Socialization conducted by forestry extension workers in the preservation and utilization of forests with agroforestry systems is part of the group for dialogue between women.

In addition, forming a women farmer group (KWT) is an important part of participatory communication. Although it has not been formed for a long time, the KWT in Cilimus village has been planting a common garden around the house. Dialogue to build participation such as in meetings is also often done. The formation of a women's cooperative was also carried out as one of the economic activities of women in KTH. In the formation of the cooperative, a mentor was presented to explain how the cooperative runs. Knowledge about cooperative management becomes the basic foundation for women to manage it. This cooperative was deliberately established by women so that there are economic activities and financial turnover that can be utilized. A lot of dialogue took place in this formation, such as when proposing names, then when determining the contribution of principal savings, mandatory savings, voluntary savings. Many gave opinions not to give too big a burden, so that there was an agreement that could be taken from the dialog.

As Gapoktan SHK Lestari has a big role in the formation of this women's cooperative. The cooperative will run better if it is managed by women because women are more careful and younger to be collected.

c. Poliponi

Poliponi is the highest form of dialogue, where participants give their opinions, inputs without any intervention, without any emphasis on one view over another and no domination in conveying ideas, suggestions and criticisms. Openness in expressing voices gives equal rights to women in KTH. At the beginning of forest encroachment, there were different perceptions from the community regarding forest sustainability and utilization. Because the community still planted crops such as upland rice corn, but at that time there were many problems that arose as a result of deforestation such as landslides, water shortages, etc. After the year 2000, the community began to change because of the lack of water. After 2000 the community began to change because of appeals and counseling from the government and also from Non-Governmental Organizations. People began to feel the importance of sustainability and sustainable forest utilization.

Systematic efforts have been made by extension workers and also from environmental NGOs to provide socialization on the importance of planting high canopy trees for forest sustainability. The attitude of the community began to have more initiative and open opinions to provide knowledge to other communities who were still not aware of sustainability. Forest farmer groups provide input and dialog related to problems in the forest.

d. Karnival

The carnival in participatory communication refers to conducting activities in an informal manner, often accompanied by humor. The indicators of a carnival emphasize activities carried out informally and with humor. Every community member is encouraged to participate freely in the carnival, beyond serious and authoritative labels (Servaes in Rahim, 2004). The language and style of carnival indicators are based on the audience's experience and are not governed by common vocabulary usage, originating instead from their own experiences.

Carnival is a communication activity that brings a style and language of communication adapted to the culture and habits used in the daily communication process, as well as delivering messages through storytelling in a fun and relaxed manner (Adiprasetyo & Vinianto, 2020).

One key indicator of the carnival concept is the implementation of activities in a non-formal atmosphere. A relaxed and enjoyable environment within the group, for instance, can be seen in the way group members talk about plans to have a meal together after the group's activities. Group members can build closer relationships through informal gatherings.

Group members are encouraged to participate actively and freely, without being constrained by serious or authoritative labels. This reflects an awareness of the importance of fostering an inclusive participatory climate, where every voice is equally valued and respected in the group's decision-making process.

In every socialization activity, discussion, or casual conversation with the community, the head of Gapoktan always strives to create a comfortable atmosphere. The communication style used by the head of Gapoktan is more about staying quiet and listening. He provides opportunities for members and the community to speak up and express their opinions, making it easier to understand and capture their attention. Additionally, the head of Gapoktan never pressures or gets angry during conversations, allowing the community to participate freely. The presence of coffee, cigarettes, and a touch of humor complements the gatherings held by Gapoktan SHK Lestari, creating a more relaxed and warm atmosphere.

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### 3. Barriers faced by women in forest conservation and resource management in promoting sustainable development

#### a. Social Aspects

The main obstacles faced by women in forest conservation and management are the lack of active participation in decision-making and the institutional frameworks governing forest management. Traditions that limit women's roles in public affairs and policy, along with restricted access to education, result in many women having fewer opportunities to actively engage in the forest management process.

Women often encounter limited access to formal education and information, which are crucial prerequisites for active participation in forest management. The lack of access to education leads to lower levels of knowledge and skills necessary to contribute effectively to forest conservation efforts.

#### b. Cultural Aspects

Women's culture in society is often influenced by traditional roles assigned by social and cultural norms. In many cultures, women are expected to be homemakers, good mothers, and obedient members of the community. These expectations often limit women's involvement in activities outside the home.

Social and cultural norms in society can hinder women's participation in activities outside the home, especially at night. The belief that women should not leave the house after dark can prevent them from engaging in activities that require being outside, such as meetings.

One major barrier to women's participation in activities outside the home is social norms around safety and honor. Many communities hold the belief that women must be protected and supervised, especially in environments considered risky, such as public spaces at night. This can result in restrictions on women's freedom to move outside the home without male supervision.

#### c. Religious Aspect

In many communities, including the majority-Muslim communities around forests with strong religious values, there is a belief that women should follow their husbands' words in all matters. This can be an obstacle to women's participation in environmental conservation, as decisions that affect the environment are often made by men in the family. As a result, women's views, needs, and interests are often neglected in environmental decision-making.

In Islam, the concept of gender equality is recognized, though its implementation may vary in cultural practices. The Qur'an teaches equality between men and women in many aspects, including responsibility towards the environment. Prophet Muhammad SAW also emphasized the importance of listening to and considering women's opinions in various matters.

It is important for communities and religious leaders to promote gender equality in participation in environmental decision-making. Initiatives such as skills training, education, and economic empowerment for women can help address the obstacles they face. Moreover, inclusive religious interpretations that take women's perspectives into account in decision-making processes can ensure that their viewpoints are recognized and respected.

### 4. The theory offered as an understanding of women's participatory communication in the conservation and management of forest resources

The author provides two important contexts to complement inclusive participatory communication, namely "collaboration" and "cultural expression." In forest resource management, empowering women forest managers is crucial because they often possess valuable local knowledge and skills for conservation and sustainable utilization. Cultural expression plays an essential role in strengthening community identity and reinforcing social cohesion. This expression includes art, music, folklore, and other forms of cultural expression that allow communities to convey their values, norms, and beliefs. In community-based natural resource management, such as forest management, cultural expressions like traditional rituals or folklore about nature can be integrated into conservation strategies. This not only ensures that initiatives are aligned with local beliefs but also strengthens the community's commitment to protecting and preserving their environment.

Collaboration involves close cooperation among various stakeholders, such as the government, NGOs, local communities, and the private sector, to combine different resources, knowledge, and expertise, while ensuring that decisions and actions are supported by a strong consensus. The integration of empowerment and collaboration in participatory communication makes forest resource management more inclusive, just, and sustainable.

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