



## Developing of Integrative Ecotourism in Waifo Village, Papua Barat, Indonesia

Mutiono<sup>(a)\*</sup>

<sup>(a)</sup> Balai Besar Konservasi Sumber Daya Alam Papua Barat

\* Corresponding Author; Address: Jl. Klamono km.16 Kota Sorong Papua Barat, Email: mas.muti1992@gmail.com

### ARTICLE INFO

#### Article History

Submitted 12 August 2020

Revised 23 November 2020

Accepted 20 December 2020

#### Keywords:

Dynamics,  
Innovation,  
Waifo Village,  
Empowerment,  
Integration.

### ABSTRACT

Community empowerment carried out in Waifo village in the process has dynamics that can be understood as material for developing community empowerment processes and formulating empowerment activities appropriate to the local community's context. The purpose of this study is to uncover the dynamics of community empowerment in Waifo village and describe the innovative formulation of empowerment activities in accordance with the context of community needs in Waifo village in a participatory manner. The research method used was a case study and participatory rural appraisal through observation, incidental interviews, focus group discussions and document studies which were analyzed descriptively. The results showed that the Waifo Village community was a type of community that was open to developing innovation but had a socio-cultural context of hunting and gathering types. There is a differentiation of perception in the community structure of Waifo village regarding interest in the object to be developed in the village. Empowerment through the formulation of integrated village-based ecotourism development can be an alternative that can be drawn from the results of a participatory community needs tracking done.

## Introduction

Forest is not just empty geometric spaces containing only flora and fauna managed by rigorous scientific methods. A rigid



perception of forest management that only emphasizes the aspects of prohibition, supervision, and relying on intense state domination, in reality, has led to the alienation of forest communities and tends to be anti-social.<sup>1</sup> Safitri describes forests and forest areas as social, legal, and administrative constructs, each of which has significant implications for social, economic, and political life.<sup>2</sup> Thus, forest resource management cannot be separated from the social, economic, and political contexts while still paying attention to biophysical and biodiversity contexts.

The Central Statistics Agency in 2019 has recorded that there are at least 21,385 villages in and around forest areas with 8,643,228 households.<sup>3</sup> The existence of communities, villages, and social systems related to forest areas makes area management efforts more responsive to their existence. Research by Massiri et al. has shown that local communities around the Lore Lindu National Park (TNLL) are motivated by material needs for the TNLL forest and have high social and moral motivation in management.<sup>4</sup> Likewise, Sadono finds that the community participated in protecting the Mount Merbabu National Park area in order to maintain water management and prevent flooding in the area.<sup>5</sup>

---

<sup>1</sup> Eko Cahyono, "Eksklusi Atas Nama Konservasi (Studi Kasus Masyarakat Sekitar/Dalam Kawasan Taman Nasional Ujungkulon Banten)," *Sosiologi Reflektif* 8, no. 1 (2013): 209–46; Sudarsono Soedomo, "Scientific Forestry," in *Kembali ke Jalan Lurus Kritik Penggunaan Ilmu dan Praktek Kehutanan Indonesia* (Yogyakarta: Tanah Air Beta, 2013).

<sup>2</sup> Myrna A. Safitri, "Keniscayaan Transdisiplinaritas dalam Studi Sosio-Legal Terhadap Hutan, Hukum dan Masyarakat," in *Kembali ke Jalan Lurus Kritik Penggunaan Ilmu dan Praktek Kehutanan Indonesia* (Yogyakarta: Tanah Air Beta, 2013).

<sup>3</sup> BPS, "Statistik Lingkungan Hidup Indonesia 2019 Hutan dan Perubahan Iklim" (Jakarta, 2019).

<sup>4</sup> Sudirman Daeng Massiri et al., "Preference and Motivation of Local Community in Utilization of Forest Resource in Lore Lindu National Park, Central Sulawesi Province," *Jurnal Manusia dan Lingkungan* 23, no. 2 (2016): 215–23, <https://doi.org/10.22146/jml.18793>.

<sup>5</sup> Yulian Sadono, "Peran Serta Masyarakat dalam Pengelolaan Taman Nasional Gunung Merbabu di Desa Jeruk Kecamatan Selo, Kabupaten Boyolali," *Jurnal Pembangunan Wilayah & Kota* 9, no. 1 (2013): 53–64, <https://doi.org/10.14710/pwk.v9i1.6526>.

Also, Mutiono shows that the community around the TWA Sorong area has a positive perception of protecting the conservation area but requires intensive communication and collaboration to minimize differences in understanding the area's boundaries.<sup>6</sup> Thus, management processes of involving the community and managing conservation areas are essential to be carried out.

Empowerment as part of a development process that involves the community, in practice, can occur in a top-down or participatory manner according to the context of their needs.<sup>7</sup> However, the empowerment that emphasizes a vertical structure is more inclined to a misunderstanding as irresponsible to the community, so it potentially leads to the domination and inequality of silence culture.<sup>8</sup> The effect of a top-down approach in development has been shown by Suryawan, who found a rupture and socio-cultural transformation of the Papuan people due to the development intervention process through the domination of an extremely capitalistic-based vertical structure.<sup>9</sup>

Waifo Village is one of the supporting villages for the East Waigeo Nature Reserve or Cagar Alam Waigeo Timur (CAWT) conservation area. As a buffer zone for conservation areas, West Papua Natural Resources Conservation Center or Balai Konservasi Sumber Daya Alam (BKSDA) as area manager also involves local communities in the context of carrying out CAWT management, so that community interactions with forests tend to be more

<sup>6</sup> Mutiono, "The Phenomenon and Construction of Community Communication Around the TWA Sorong, West Papua," *Jurnal Komunikasi Pembangunan* 18, no. 1 (2020): 67-79, <https://doi.org/10.46937/18202029342>.

<sup>7</sup> A Rahmat and A Izudin, "Impact Evaluation of Community Empowerment Programs with the Farmer Managed Extension Model," *European Research Studies Journal* XXI, no. 2 (2018): 225-35.

<sup>8</sup> Mutiono et al., "Pedagogical Communication in High Forestry Education in Critical Perspective," *Jurnal Komunikasi Pembangunan* 16, no. 2 (2019): 172-85, <https://doi.org/10.46937/16201825630>.

<sup>9</sup> I Ngurah Suryawan, "Identitas yang Terpecah dan Peluang Transformasi Sosial Budaya di Tanah Papua," *Kawalu: Journal of Local Culture* 2, no. 1 (2015): 16-41.

positive. It is hoped that community involvement in the form of empowerment activities can provide increased knowledge, attitudes, and conservation behavior of the local community to support efforts to conserve the CAWT area, which is also expected to be able to increase the welfare and independence of the community in maintaining its existence. This study aims to reveal community empowerment dynamics in Waifoi Village and plan appropriate empowerment strategies as participatory community development innovations.

Using a case study method reinforced by the Participatory Rural Appraisal (PRA) method, this research is to assess and understand village conditions in a participatory manner.<sup>10</sup> The data collection process is through observation, incidental interviews, focus group discussions, and document studies. The research was conducted in February 2020 in Waifoi Village, Tiplol Mayalibit District, Raja Ampat Regency. Eighteen residents followed participatory data collection to compile village sketches, seasonal calendars, village history, livelihood studies, and community needs assessments. Field observations, document studies, and incidental interviews are part of the triangulation method to check and recheck one source of evidence from another.<sup>11</sup> Data analysis was carried out by descriptive analysis, namely analysis, to obtain important findings from the data collected to gain understanding (*verstehen*) of the meanings that emerged and could be used as material for the preparation of

---

<sup>10</sup> Robert Chambers, "The Origins and Practice of Participatory Rural Appraisal," *World Development* 22, no. 7 (1994): 953–969; Pante et al., "Participatory Action Research in Disaster Preparedness and Community Reconstruction," *Philippine Sociological Review* 61, no. 2 (2013): 419–42; Bambang Hidayana et al., "Participatory Rural Appraisal (PRA) Untuk Pengembangan Desa Wisata di Pedukuhan Pucung, Desa Wukirsari, Bantul," *Bakti Budaya* 2, no. 2 (2019): 99–112, <https://doi.org/10.22146/bb.50890>; Robert Chambers, "Sustainable Livelihoods: The Poor's Reconciliation of Environment and Development," in *Real-Life Economics: Understanding Wealth Creation*, ed. Paul Ekins and Manfred Max-Neef (London: Routledge, 1992); R. Chambers and R. Conway, "Sustainable Rural Livelihoods: Practical Concepts for the 21st Century," *IDS Discussion Paper*, vol. 296, 1992.

<sup>11</sup> Paul Gill et al., "Methods of Data Collection in Qualitative Research: Interviews and Focus Groups," *British Dental Journal* 204, no. 6 (2008): 291–95; S. Jamshed, "Qualitative Research Method—Interviewing and Observation," *Journal of Basic and Clinical Pharmacy* 5, no. 4 (2014).

community empowerment planning.

### Empowerment Dynamics

Waifoi Village is one of the villages located in the Tiplol Mayalibit District, Raja Ampat Regency. To reach Waifoi Village, it takes  $\pm$  2 hours of travel by using an outboard motorboat 15 pk from Waisai Raja Ampat Port or  $\pm$  1 hour by the same transportation mode Warsambin Harbor, Raja Ampat. Administratively, the north of the village is bordered by Kapadiri Village; in the south, the village is bordered by Warimak Village; in the west, the village is bordered by Kabilol Village, and in the east, the village is bordered by Mount Kapak Balaun.

The name Waifoi village comes from the Maya language, one of the original tribes in the Raja Ampat Islands region. Waifoi comes from the word “Wa” which means water, and “Foi” which means a wooden tree, so it is literally interpreted as a village with water flowing under the tree. This naming cannot be separated from the origin of the village’s initial formation, which was originally a place for residents to stop by to find and get fresh water. Due to the characteristics of its large location and having good water sources and fertile land, settlements were built in the area, precisely on the shores of Mayalibit Bay, which five families started from the Gaman clan. Kampung Waifoi was definitively recognized as a village by the local government in 1972. Population data for Kampung Waifoi in 2017 recorded that the total population of Waifoi Village reached 215, with 105 male and 110 female. The majority of Waifoi Village residents embrace Protestant Christianity while fishermen and forest farmers dominate the community’s livelihoods. The sketch of Waifoi Village is presented in Figure 1.

Figure 1. The sketch of Waifoi Village



Source: Fieldwork, 2020.

The location of Kampung Waifoi based on the village sketches and observations made shows that the village is in a very strategic position in terms of the availability of its natural resources. The village sketch shows a natural forest in the Mount Kapak Balaun landscape with various forest products, both wood and non-timber. In the front of the village, it is the Mayalibit Bay Seas with marine potential. It appears that in fulfilling the community's subsistence needs through the availability of abundant natural resources surrounding Kampung Waifoi. However, it is necessary to assist the community in avoiding the resource curse phenomenon under these conditions.<sup>12</sup> On the other hand, the abundant resources, both forest and seas, protected by law, in this principle of prudence, exploration natural resources should be introduced to the community concerning the subsistence life and no conflict with existing positive laws.

<sup>12</sup> The phenomenon of the resource curse describes a condition in which a community that has an abundance of resources but is unable to encourage economic growth and tends to make its people not concerned with education. See, Sudarsono Soedomo, *Obrolan Nusantara "Menyambut Indonesia Baru"* (Jakarta: Firdaus Pressindo, 2012).

Based on the season calendar assessment in Waifo Village, natural commodities commonly used by the local community are presented in Table 1.

Table 1. Commodities of natural products used by the community

No	Commodities	Month
1	<i>Teripang</i> (Sea cucumber)	October - December
2	<i>Lola</i> ( <i>Trochus Niloticus</i> )	October - December
3	<i>Ikan Goropa</i> (Goropa fish)	October - December
4	<i>Sagu</i> (Sago)	January - December
5	<i>Cempedak</i>	January February
6	Guava	March April
7	<i>Langsat</i>	January - March
8	<i>Rambutan</i>	February - July

Note: before 2016, the use of timber forest products for commercial use and hunting of animals was still performed, but along with forestry counselling activities that were continuously introduced in Waifo Village, after 2016, the use of wood for commercial use and hunting of animals tended discontinued.

The community's commodities indicate the natural products around the village provided by the forest and the sea. The community in Waifo Village is a type of people hunting and gathering whose life has been provided by nature. By this fact, Waifo people are classified as ordinary people with intensive cultivation activities that require their own time, effort, and techniques to obtain harvest results. The empowerment activities in 2016 through intensive agricultural activities had not shown success.

The current condition of Kampung Waifo shows a tendency towards a shift in their livelihood interests. Before 2016, most people's livelihoods were hunters, fishermen, sago farmers, and trading. It cannot be denied because the natural and marine potential of Kampung Waifo is very abundant. In fact, in the past, the sale

of protected bird species was still very widespread in the area because the forests in the Mayalibit Bay area as one of the habitats for protected birds such as the Koki Cockatoo (*Cacatua galerita*), Nuri Bayan (*Electus roratus*), Black Head Kasturi (*Lorius lory*), Papuan hornbills (*Rhyticeros plicatus*), and so on.

Post-2016, along with forestry extension activities by the West Papua KSDA Center as well as government agencies and other non-governmental organizations that emphasize the importance of nature conservation and ecotourism development opportunities, some communities have gradually begun to take an interest in developing ecotourism in their region. Three homestays have been recorded in the Waifo Village area, which facilitates special interest tourists to enjoy the natural beauty of Mayalibit Bay, especially those around Waifo Village, through the tour packages offered. The emergence of interest in ecotourism and awareness of conservation of the benefits obtained, hunting and trade in protected animals from the Waifo Village area disappeared.

Table 2. Ecotourism Attractions in Waifo Village

Time	Over Tourism Package
2D1N	Overnight in Saufon Homestay
2D1N	Overnight in Kamtabay Homestay
2D1N	Overnight in Lainserongga Homestay
3D2N	Mayalibit Jungle Trekking
3D2N	Maya Tribe Cultural Trip
4D3N	Journey of Mayalibit Bay
5D4N	Long Journey of Mayalibit Bay
Tourism Attractions Package	
<ul style="list-style-type: none"> <li>• Blue River: Ajelly Pool -Penish Rock</li> <li>• Mangrove Kayaking</li> </ul>	<ul style="list-style-type: none"> <li>• Trekking to Panorama – Birdwatching.</li> <li>• Pin Raja Ampat</li> <li>• Travel to Waisai</li> <li>• Birdwatching</li> </ul>



Tourism Attractions Package		
• Traditional Cooking	• Night Trekking.	• Wooden Fabric Processing
• Travel to Waisai	• Birdwatching Red BoP	• Traditional Fishing
• Jungle Trekking	• Trekking to Bat Cave	• Visit Women Crafting.
• Watching Panorama	• Waterfall	• Sago Processing (Tokok Sago)

Source: Fieldwork, 2020.

The existence of a new trend in the livelihoods of the people of Kampung Waifo to develop ecotourism has resulted in the differentiation of perceptions among the people of the village. The focus group discussion results indicated a differentiation of perceptions of people’s interest in developing their livelihoods. The perceptual differentiation is presented in table 3.

Table 3. Differentiation of livelihood interests’ perceptions

Interest Group	Perception
Ecotourism (Natural and cultural tourism packages)	Ecotourism is actually able to generate economies and also change people’s lifestyles from hunting to protecting nature.
Forestry (Utilization of Sago)	People have always used sago, some for a living, some for sale. It has been a habit of people from generation to generation.
Agriculture (Vegetable Cultivation)	Vegetable cultivation has been taught to the community, but it has not been successful because it is not accompanied. If it is assisted, it will be successful.
Arts (crafts)	The women ( <i>mama-mama</i> ) in Waifo village have received training and assistance in making handicrafts by NGOs to have skills that can continue to be developed for the provision of typical Raja Ampat souvenirs.

Source: Research process, 2020.

From Table 3, it can be understood at least four differentiated interests in the Kampung Waifoi community. There is an interest in ecotourism, which is a suggestion from some people pursuing ecotourism that youth groups generally dominate. There is interest in sago as a suggestion from some elderly groups, and sago represented their early village life by utilizing sago in the village forest. Agriculture interest is a suggestion from community groups trying to develop vegetable cultivation after the intensive agricultural empowerment activities previously, but not thriving. Crafting interest is a suggestion from a group of women who make handicrafts in knitted bags. Besides, it is additional marine interest with sea cucumber cultivation, but because of the limitation of empowerment by the CAWT, this proposal is not raised.

This differentiation of perceptions of livelihood interests has led to the impression of a conflict between interest groups about the most suitable interests developed in the empowerment process in Waifoi Village. Therefore, we need innovation that can formulate differences in interests and minimize conflicts of interest in developing community needs in the empowerment program that will be implemented.

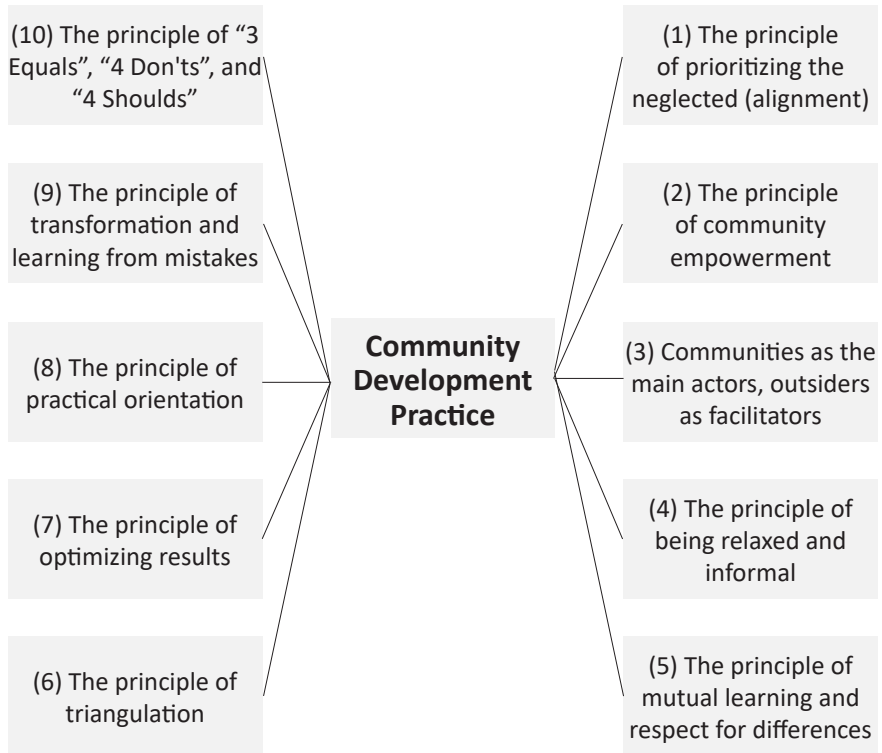
### **Empowerment Innovation Formulation**

Empowerment emphasizes the concept of independence in the future; therefore, empowerment practices must avoid patterns that can lead to dependency. Thus, it is important to implement participatory empowerment planning to exercise control over power sources and gain independence. For this reason, this study applies participatory principles strictly to obtain the right empowerment innovation formulation, as follows<sup>13</sup>:

---

<sup>13</sup> R Djohari, *Partisipasi, Pemberdayaan, dan Demokratisasi Komunitas: Reposisi Participatory Rural Appraisal (PRA) dalam Program Pengembangan Masyarakat* (Bandung: Studio Driya Media, 2013); Dipa

Figure 2. Empowerment Innovation Concept



Based on figure 2, the researcher explores that the meaning of principle empowerment is a prioritizing maintenance of social capital in local people. Likewise, the researcher can be explained its meaning, as follows:

- In community groups, there must be neglected groups or power groups. Through this principle, their existence must be involved both in data collection and in discussion moments so that opportunities for

Nusantara Aidit, *Kaum Tani Mengganjang Setan-Setan Desa* (Jakarta: Yayasan Pembaruan, 1964); Elizabeth Lindsey, Kelli Stajduhar, and Lisa McGuinness, “Examining the Process of Community Development,” *Journal of Advanced Nursing* 33, no. 6 (2001): 828–35, <https://doi.org/10.1046/j.1365-2648.2001.01722.x>; Badaruddin Badaruddin et al., “Village Community Empowerment through Village Owned Enterprise Based on Social Capital in North Sumatera,” *Asia Pacific Journal of Social Work and Development* 00, no. 00 (2020): 1–13, <https://doi.org/10.1080/02185385.2020.1765855>; D. L. Mwaseba et al., “Perceptions and Practices of Farmer Empowerment in Tanzania,” *Development in Practice* 19, no. 3 (2009): 403–13.

opinion are given equally (not only focus on vocal ones in speaking/arguing).

- Empowerment means changing the pattern of power relations between the dominant group (powerful) and the weak (powerless) so that the processes must avoid the dominant group's existentialism that maintains the domination relationship.
- Researchers, or in this case as outsiders who come to the community, must position themselves as facilitators by abandoning all status and strata they have. The community must be positioned as the main actor and subject who is considered to know better so that the facilitator humbly learns and explores from the community. Outsider existentialism should be avoided because it will either directly or indirectly dominate and weaken society to open up. Building an emotional connection with equality is an integral part of community acceptance and openness to participate.
- Rigid and formal relationships will make people reluctant to open up. Researchers must show a flexible, intimate, relaxed attitude and blend in with the community so that people are comfortable with the atmosphere that is built to express the contents of their thoughts.
- The social order and public knowledge are very likely to differ, including the scientific knowledge acquired through informal education. Researchers must avoid dominating, patronizing and blaming positions on whatever the community says. Researchers must listen more and pay more attention to what is conveyed by the community to be enthusiastic about telling what they know. As for the differences, it is sufficient to make notes without being exposed and clashed openly.
- Public knowledge generally comes from oral experiences and traditions. Therefore, there may be differences in information between one person and another, whether influenced by age, gender, and other backgrounds. Thus, researchers must familiarize themselves with not concluding one source of information but must check and recheck other sources whether to confirm through reading sources, through other informants or focus group discussions.
- Learning based on the community and implementing community empowerment is to support community development needs in the present and future. Therefore, the data collection should focus on the achievement goals, and no need to know everything. It means to know enough or optimal ignorance and invite people to think in more detail and fully scientific discussion, but rather ensure that the results can be understood through agreements with sufficient information.
- It must be understood that the assessment method is not just for

applying existing methods with the community but for internalizing three main agendas, namely 1) assessment (collecting data and information), 2) learning (co-learning and understanding), and 3) developing action programs collectively. Therefore, the process must be able to obtain data, become a media for shared learning, and become a basis for developing joint action programs with the community.

- Society is a dynamic community. They have developed with the times in living life. Thus, what we are examining today is very likely related to society's past and the mistakes that have occurred. Therefore, data retrieval must be accompanied by knowing what happened in the past, the changes that occurred and the problems/causes.
- The principle of "3 Equals", "4 Don'ts", and "4 Shoulds" is the fundamental that must be adhered to in studying community so that they are willing to be open to conveying the real conditions they are facing. The principle of "3 Equal" is the same as eating, working together and sleeping together with the community. The "4 don't" principle do not patronize, do not harm the host, and do not take notes in front of the person being asked. The principle of "4 Shoulds" is that you must implement "3 Equals", be humble, polite and willing to learn, know the local language and customs, and help solve the host's difficulties or the local community.

From the participatory discussion process with Waifoi Village people, several inputs were obtained from the community regarding matters that became community needs and development potential. The polarization of community needs collected can be summarized as follows.

Table 4. Polarization of community needs

Needs	Supporting Aspects	Information
Support for ecotourism development	There is already a homestay, has beautiful natural potential and already has a travel tour package.	Ecotourism is needed as the core of the concept of community empowerment that can increase motivation to maintain sustainability and improve community welfare through education and the potential of nature, landscapes, and local knowledge owned by the community.

Needs	Supporting Aspects	Information
Support for the development of vegetable cultivation	Have received training in vegetable cultivation with the concept of meeting the needs of a homestay.	Vegetable cultivation can be integrated for subsistence purposes and homestay needs in serving food for visitors/guests. Besides, it can also be developed as a new tourist attraction.
Support for the sago utilization	Have great potential for sago, has become a staple food and can be sold.	Sago is one of the staple foods of the community and is traditionally processed. Apart from fulfilling food needs, traditional sago harvesting methods can also be a unique ecotourism attraction. Besides that, the various uses of sago in processed products can also be business opportunities.
Support for the development of handicraft businesses	Have the ability to make handicrafts and marketing opportunities	Women in Waifo Village already can make handicrafts to make knitted bags typical of Raja Ampat.

Source: Fieldwork, 2020.

Empowerment is a process of strengthening the community towards its ability to manage its resources. Polarizing the needs obtained is formulated to become an empowerment concept that all layers of differentiation can accept based on existing polarization. Participatory discussions with the community have resulted in the concept of “Village-Based Integrated Ecotourism Development” or the PETERBAKA concept.

PETERBAKA, as part of innovation, in its formulation preparations, applies the principles of innovation from Rogers<sup>14</sup>, namely paying attention to five main aspects:

<sup>14</sup> E. M. Rogers, *Diffusion of Innovations*, 5th ed. (New York, The USA: The Free Press, 2003).

Table 5. The Principle of Innovation

The Principle	Meaning
Relative advantages	PETERBAKA is based on local community businesses that are commonly carried out, and the value of benefits and economic benefits is known so that by strengthening it. It will be easy to understand the rationality of the relative benefits.
Compatibility	Innovation is based on what the community needs and what the community can do because it has become their daily habit in forestry, marine, and ecotourism contexts so that PETERBAKA innovation will be more compatible with the community.
Complexity	PETERBAKA is developed by strengthening local community businesses through business integration and development, not to be complicated but efficient.
Trialability	The PETERBAKA innovation is based on local community businesses used to apply for the community.
Observability	PETERBAKA is developed directly in the village with a simple method so that it is easy for the community to observe and do.

Source: Adapted from Rogers, 2003.

Research by Fry, Ryley, and Thring at least has shown how important it is to pay attention to these five aspects in determining the success of the diffusion of alternative fuel vehicle innovations in the City of Birmingham, England.<sup>15</sup> Likewise, Ahmad shows that Rogers' principles of innovation are an important part of diffusing innovation to increase community participation for environmental sustainability through the Cikapundung Bersih activity initiated by

<sup>15</sup> Amy Fry, Tim Ryley, and Robert Thring, "The Influence of Knowledge and Persuasion on the Decision to Adopt or Reject Alternative Fuel Vehicles," *Sustainability* 10 (2018): 1–20, <https://doi.org/10.3390/sul10092997>

the Kuya Tilubelas Community.<sup>16</sup> Warner, Lamm, and Silvert<sup>17</sup> also show that the formulation of these five aspects in the diffusion of water conservation innovations in urban Florida-USA is the primary consideration for adopters in adopting novel innovations.

PETERBAKA is a formulation to optimize Waifoi Village's potential to create community independence while maintaining the goal of preserving natural resources and providing increased welfare for local communities by integrating existing economic nodes in the village. Through PETERBAKA, it is hoped that people's dependence on external factors outside the village in developing their potential minimized. The economy is expected to rotate within the village to emerge from the subjects from within the village.

PETERBAKA on the contextual rationality that the ecotourism business has been developing in Waifoi Village. To support its development, it is necessary to integrate with the local population's tendencies and interests, namely vegetable cultivation, handicraft business, and sago utilization. As an integrated system to fulfil ecotourism needs (both products and attractions), it can turn the community's economy in the village. PETERBAKA community empowerment concept intensively will be carried out for five years to generate independence and increase community welfare, expected positive implications for preserving natural resources and biodiversity around Waifoi Village. The empowerment planning for five years is described in Table 6.

---

<sup>16</sup> Rizal Ahmad, "Difusi Inovasi dalam Meningkatkan Partisipasi Masyarakat Akan Kelestarian Lingkungan," *Sosietas* 6, no. 2 (2016), <https://doi.org/10.17509/sosietas.v6i2.4244>.

<sup>17</sup> Laura A. Warner, Alexa J. Lamm, and Colby Silvert, "Diffusion of Water-Saving Irrigation Innovations in Florida's Urban Residential Landscapes," *Urban Forestry and Urban Greening* 47 (2020): 126540, <https://doi.org/10.1016/j.ufug.2019.126540>.



Table 6. PETERBAKA Empowerment Plan for 2020-2024

No	Activity	Success/performance indicator	Implementation
1	Reframing the concept of empowerment in Waifo Village	Understanding of the PETERBAKA concept	2020
2	Providing support for ecotourism facilities	Improvement of ecotourism infrastructure	2020
3	Handicraft business development training	Increasing skills and product output	2021
4	Providing handicraft business assistance	Increasing output and product marketing	2021
5	Organic vegetable cultivation training	Increasing public understanding	2022
6	Preparation of organic vegetable cultivation field plans	Arrangement of field plans for organic vegetable cultivation	2022
7	Assistance in the implementation of organic vegetable cultivation	Organic vegetable cultivation by residents	2022
8	Organic vegetable post-harvest assistance	Processing products from organic vegetables	2023
9	Assisting in the development of organic and processed vegetable cultivation	Increasing output from cultivation and processing	2023
10	Sago product processing training	The output of processed sago products	2024
11	Assisting to strengthen village-based integrated ecotourism	Improvement of integrated ecotourism performance	2024
12	Evaluation of community empowerment in Waifo Village	Increasing independence, welfare, and preservation of natural resources	2024

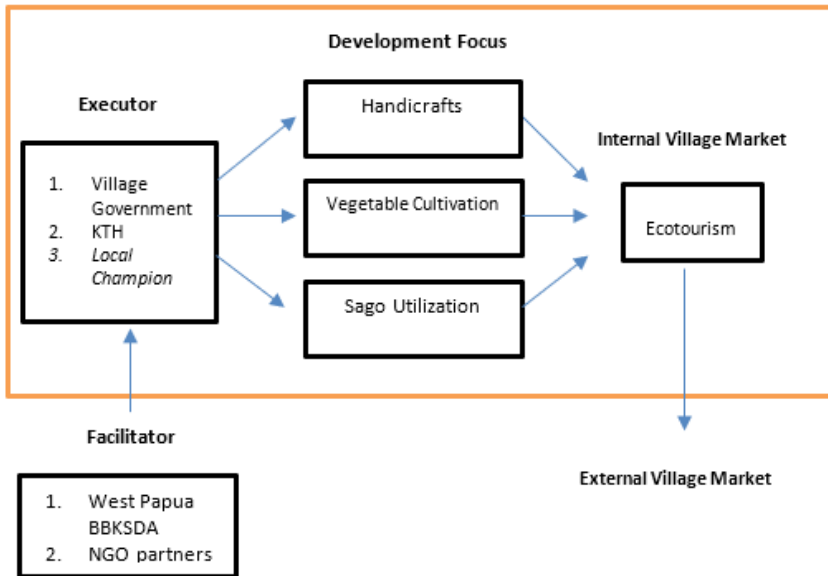
Source: Fieldwork, 2020.

Planning requires a gradual implementation of empowerment, namely in 2020, a reframing of the concept of empowerment to the community will be carried out and strengthening ecotourism developed as its economic base. In 2021, empowerment will shift to developing handicrafts to support the provision of souvenirs for tourists who enjoy tourist attractions in Waifo Village. In 2022-2023, empowerment will shift to developing organic vegetable cultivation as support for raw materials for providing food for every guest. Development is focused on organic farming as part of a trend that special interest tourists are interested in. In 2024, empowerment will focus on developing sago processing and support for strengthening the integrated ecotourism built.

This gradual implementation will be monitored annually and evaluated in the last year of implementation. Monitoring is carried out as annual activity control that is flexible and responsive to the situation and contextual conditions of activities in the following year. Evaluation is carried out as a form of the final assessment of the entire program's implementation, whether it has a positive impact and can be continued for further development or the need for fundamental changes.

Implementing the PETERBAKA concept will be carried out with collaborative actions as part of a social mobilization strategy so that empowerment innovation in Waifo Village diffused consistently and persistently. The strategy of social mobilization by building commitment and support from various parties who can influence community mobilization to commit to implementing PETERBAKA until the goal of empowerment can be achieved. The description of the social mobilization strategy in implementing PETERBAKA is described as follows.

Figure 3. Empowerment Implementation Scheme



Source: Fieldwork, 2020.

The implementation of PETERBAKA cannot be done exclusively by CAWT conservation area managers but requires collaboration from various parties. The area manager and local NGO partners who focus on activities in the Mayalibit Bay area will take the position of facilitator to increase the executor group’s capacity and capability. The executor group will strengthen the village government as a formal institution in Waifo Village and has an important role in encouraging village development. Then, the community members of forest farmer groups formed as organizations that will be directly involved in realizing the development of integrated ecotourism, and local champions, namely people who have power/influence in the community of Kampung Waifo but can also communicate with good to the facilitator. The facilitator and executor will develop interests in crafts, agriculture, and forestry to support the internal market ecotourism developed in Waifo Village and external markets in

Waisai City and online. Thus, it is hoped that the development of integrated ecotourism can be implemented effectively.

## Conclusion

Empowerment innovation requires participatory planning so that the target community's real characteristics and needs can be revealed as material for innovation planning. The people of Kampung Waifo still have the characteristics of a gathering hunting community that relies on natural and marine products available around their village. Obtained four differentiations of community interests which are the main needs to be developed, namely agricultural interest through vegetable cultivation, artistic interest through handicraft business, forestry interest through sago utilization, and ecotourism interest through special interest tourism development. The participatory interest differentiation formulation using Rogers' innovation principles resulted in an innovative PETERBAKA empowerment plan developed in Waifo Village. PETERBAKA was developed to create community independence based on local businesses in an integrated village so that the economical turnover of the community can be focused in the village with the implications of increasing welfare, changing community behaviour to be more conservationist, and preserving the existence of natural resources and biodiversity in the village around the village.

PETERBAKA innovations will be developed for over five years. Therefore, it requires consistency and persistence from all parties, both at the facilitator and executor level, in ensuring that the implementation of innovation can run according to the plan drawn up. In each sector for developing business interest, a local champion should ensure that social mobilization in carrying out business development can continue without dependent on the facilitator visiting. PETERBAKA is a flexible concept; the implementation

process will depend on the context of the field's situation and will continue to be improved according to contextual needs. Therefore, participatory empowerment monitoring and evaluation activities are an essential part of supporting the sustainability of this innovation's implementation.

Thank you to the West Papua Natural Resources Conservation Center for supporting and facilitating the entire research process, starting from the research planning process and data collection to the final project. Thanks also go to the Fauna & Flora International-Indonesia Raja Ampat Program and colleagues who have helped the entire data collection process while in the field.

## References

- Ahmad, Rizal. "Difusi Inovasi dalam Meningkatkan Partisipasi Masyarakat akan Kelestarian Lingkungan." *Sosietas* 6, no. 2 (2016). <https://doi.org/10.17509/sosietas.v6i2.4244>.
- Aidit, Dipa Nusantara. *Kaum Tani Mengganjang Setan-Setan Desa*. Jakarta: Yayasan Pembaruan, 1964.
- Badaruddin, Badaruddin, Kariono Kariono, Ermansyah Ermansyah, and Lina Sudarwati. "Village Community Empowerment through Village Owned Enterprise Based on Social Capital in North Sumatera." *Asia Pacific Journal of Social Work and Development* 00, no. 00 (2020): 1–13. <https://doi.org/10.1080/02185385.2020.1765855>.
- BPS. "Statistik Lingkungan Hidup Indonesia 2019 Hutan dan Perubahan Iklim." Jakarta, 2019.
- Cahyono, Eko. "Eksklusi Atas Nama Konservasi (Studi Kasus Masyarakat Sekitar/Dalam Kawasan Taman Nasional Ujungkulon Banten)." *Sosiologi Reflektif* 8, no. 1 (2013): 209–46.
- Chambers, R., and R. Conway. "Sustainable Rural Livelihoods: Practical Concepts for the 21st Century." *IDS Discussion Paper*. Vol. 296, 1992.

- Chambers, Robert. "Sustainable Livelihoods: The Poor's Reconciliation of Environment and Development." In *Real-Life Economics: Understanding Wealth Creation*, edited by Paul Ekins and Manfred Max-Neef. London: Routledge, 1992.
- . "The Origins and Practice of Participatory Rural Appraisal." *World Development* 22, no. 7 (1994): 953–969.
- Djohari, R. *Partisipasi, Pemberdayaan, dan Demokratisasi Komunitas: Reposisi Participatory Rural Appraisal (PRA) dalam Program Pengembangan Masyarakat*. Bandung: Studio Driya Media, 2013.
- Fry, Amy, Tim Ryley, and Robert Thring. "The Influence of Knowledge and Persuasion on the Decision to Adopt or Reject Alternative Fuel Vehicles." *Sustainability* 10 (2018): 1–20. <https://doi.org/10.3390/su10092997>.
- Gill, Paul, Kate Stewart, Elizabeth Treasure, and Barbara Chadwick. "Methods of Data Collection in Qualitative Research: Interviews and Focus Groups." *British Dental Journal* 204, no. 6 (2008): 291–95.
- Hudayana, Bambang, Pande Made Kutaneegara, Setiadi Setiadi, Agus Indiyanto, Zamzam Fauzanafi, Mubarika Dyah F. Nugraheni, Wiwik Sushartami, and Mohamad Yusuf. "Participatory Rural Appraisal (PRA) untuk Pengembangan Desa Wisata di Pedukuhan Pucung, Desa Wukirsari, Bantul." *Bakti Budaya* 2, no. 2 (2019): 99–112. <https://doi.org/10.22146/bb.50890>.
- Jamshed, S. "Qualitative Research Method—Interviewing and Observation." *Journal of Basic and Clinical Pharmacy* 5, no. 4 (2014).
- Lindsey, Elizabeth, Kelli Stajduhar, and Lisa McGuinness. "Examining the Process of Community Development." *Journal of Advanced Nursing* 33, no. 6 (2001): 828–35. <https://doi.org/10.1046/j.1365-2648.2001.01722.x>.
- Massiri, Sudirman Daeng, Bramasto Nugroho, Hariadi Kartodihardjo, Rinekso Soekmadi, and Kampus I P B Dramaga. "Preference and Motivation of Local Community in Utilization of Forest Resource in Lore Lindu National Park, Central Sulawesi

- Province.” *Jurnal Manusia Dan Lingkungan* 23, no. 2 (2016): 215–23. <https://doi.org/10.22146/jml.18793>.
- Mutiono. “The Phenomenon and Construction of Community Communication Around the TWA Sorong, West Papua.” *Jurnal Komunikasi Pembangunan* 18, no. 1 (2020): 67–79. <https://doi.org/10.46937/18202029342>.
- Mutiono, Sarwititi Sarwoprasodjo, Sudarsono Soedomo, and Heri Budianto. “Pedagogical Communication in High Forestry Education in Critical Perspective.” *Jurnal Komunikasi Pembangunan* 16, no. 2 (2019): 172–85. <https://doi.org/10.46937/16201825630>.
- Mwaseba, D. L., A. Z. Mattee, R. Kaarhus, E. A. Lazaro, Z. S. K. Mvena, R. M. Wambura, and E. D. Kiranga. “Perceptions and Practices of Farmer Empowerment in Tanzania.” *Development in Practice* 19, no. 3 (2009): 403–13.
- Pante, Bernadeth Laurelyn, Allison Matociños, and Alexandra Abril. “Participatory Action Research in Disaster Preparedness and Community Reconstruction.” *Philippine Sociological Review* 61, no. 2 (2013): 419–42.
- Rahmat, A, and A Izudin. “Impact Evaluation of Community Empowerment Programs with the Farmer Managed Extension Model.” *European Research Studies Journal* XXI, no. 2 (2018): 225–35.
- Rogers, E. M. *Diffusion of Innovations*. 5th ed. New York, The USA: The Free Press, 2003.
- Sadono, Yulian. “Peran Serta Masyarakat dalam Pengelolaan Taman Nasional Gunung Merbabu di Desa Jeruk Kecamatan Selo, Kabupaten Boyolali.” *Jurnal Pembangunan Wilayah & Kota* 9, no. 1 (2013): 53–64. <https://doi.org/10.14710/pwk.v9i1.6526>.
- Safitri, Myrna A. “Keniscayaan Transdisiplinaritas dalam Studi Sosio-Legal Terhadap Hutan, Hukum dan Masyarakat.” In *Kembali ke Jalan Lurus Kritik Penggunaan Ilmu dan Praktek Kehutanan Indonesia*. Yogyakarta: Tanah Air Beta, 2013.

- Soedomo, Sudarsono. *Obrolan Nusantara “Menyambut Indonesia Baru.”* Jakarta: Firdaus Pressindo, 2012.
- . “Scientific Forestry.” In *Kembali Ke Jalan Lurus Kritik Penggunaan Ilmu dan Praktek Kehutanan Indonesia*. Yogyakarta: Tanah Air Beta, 2013.
- Suryawan, I Ngurah. “Identitas yang Terpecah dan Peluang Transformasi Sosial Budaya di Tanah Papua.” *Kawalu: Journal of Local Culture* 2, no. 1 (2015): 16–41.
- Warner, Laura A., Alexa J. Lamm, and Colby Silvert. “Diffusion of Water-Saving Irrigation Innovations in Florida’s Urban Residential Landscapes.” *Urban Forestry and Urban Greening* 47 (2020): 126540. <https://doi.org/10.1016/j.ufug.2019.126540>.