

Mapping stakeholder's roles in Clungup Mangrove Conservation *Tiga Warna Sendang Biru* Ecotourism's Value Chain

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ABSTRACT

Ecotourism is a sustainable tourism development concept that aims to conserve the environment (nature and culture). One type of ecotourism is mangrove ecotourism. Clungup Mangrove Conservation (CMC) Tiga Warna is a famous ecotourism located on Sendang Biru Beach, South Malang. This study aimed to analyze the stakeholder's involvement in CMC *Tiga Warna Sendang Biru* Ecotourism's value chain. The data were analyzed using the concept of the Yilmaz and Bititci value chain. The research results found that the Bhakti Alam Foundation managed the CMC Tiga Warna Ecotourism with members from POKMASWAS Gatra Olah Alam Lestari (GOAL) by applying the concept of conservation-oriented in the application of sustainable tourism. Other actors involved are local communities, consumers, and the government. The problems that existed were related to Government Agencies' overlapping roles, causing management to be slightly hampered. For example, infrastructure problems, including arranging permits by Perum Perhutani and negotiating their management with the Tourism Office. Therefore, it is necessary to establish reliable cooperation between agencies to pursue better ecotourism management.

Key words : Mangrove, Value chain, Ecotourism, CMC Tiga Warna

Introduction

Natural resources in coastal areas are divided into three types: mangrove resources, coral resources, and seagrass resources. The mangrove forest resource is a forest formation filled with littoral plants, influenced by seawater tides, with anaerobic soil conditions. The forest's existence does not depend on the climate, but generally, mangrove forests grow well in protected coastal areas, such as deltas and estuaries (Pariyono, 2006).

Ecotourism is a concept of sustainable tourism development, in which the objective is to support the endeavors of environment conservation (nature and culture). Ecotourism can also increase commu-

nity participation in management to provide economic benefits to the community and local government (UNESCO Office Jakarta and Regional Bureau for Science in Asia and the Pacific, 2009).

Clungup Mangrove Conservation (CMC) *Tiga Warna* is mangrove ecotourism that implements conservation-oriented concepts to apply sustainable tourism. According to Sulistyadi *et al.*, (2019), sustainable tourism is committed to protecting and being responsible for the integrity of the natural and cultural environment by planning and managing the socio-cultural environment.

The development of ecotourism activities is increasing, which has attracted various visitors, previously only visited by nature-lovers. The rapid de-

velopment also impacts ecotourism management, which must be developed to maximize mangrove ecotourism's function. Based on the background, the research objectives were formulated to analyze the actors involved in the development of ecotourism at CMC *Tiga Warna*.

Research Methods

The method used for sampling at each location in this study was a nonprobability sampling method with a snowball sampling technique. Snowball sampling is a technique of determining a sample that is initially small in number, then enlarges. In determining the sample, one or two participants are selected. If the data obtained from those participants are not sufficient, the researcher will look for other knowledgeable people to complete the data from two previous participants (Sugiono, 2018).

The data analysis method uses data analysis model Interactive analysis from Miles and Huberman (1994), which divides analysis activities into several parts: data collection, data reduction, data presentation, and drawing conclusions or data verification.

1. **Data collection** collects data on the activities and actors involved in ecotourism activities carried out through objective interviews, observations, and field documentation.
2. **Reducing data** is summarizing the data and then selecting the compatible data with the research objectives.
3. **Data presentation** is presenting data based on compiled information.
4. **Conclusions or verification** is checking and demystifying the data obtained after being examined to generate causal or interactive relationships, hypotheses, or theories.

Results and Discussions

Ecotourism Profile

The CMC ecosystem area has a total area of \pm 210 ha. This area has a complete ecosystem in Malang Regency, including mangroves, sandy beaches with coral reefs, and hills. CMC TigaWarna CMC area is divided into two conservation areas, namely the Mangrove conservation area (Clungup Beach and Gatra Beach) and coral reef conservation areas (Sapana Beach, Mini Beach, BatuPecah Beach, and

TigaWarna Beach). The total area that has been rehabilitated reached approximately 117 hectares, consisting of 71 hectares of mangroves, 10 hectares of coral reefs, and 36 hectares of protected forests.

The CMC ecotourism was established by local communities' circumstances and conditions which formerly worked as forest encroachers, fishers who caught fish in a harmful way, and as wood thieves. Consequently, the natural ecosystem in that area slowly demonstrated the disruption to ecological equilibrium caused by destructive behavior, and the detrimental impacts were gradually affecting the locals. Therefore, intensive approach and socialization were carried out as an initial action to change the locals' habits and perceptions in protecting and fixing nature balance.

The ecosystem protection effort continues to conserve ecosystem areas by shifting the land status from open access to the conservation area, known as the Clungup Mangrove Conservation (CMC). This conservation area's existence is also supported by Tambakrejo Village Regulation Number 03 of 2015 concerning Customary Law, Administration, Development, and the Environment, which states that the mangrove protection area's core zone is one of which is in the Clungup Beach area. In this area, activities such as removing anchors, crossing with sea transportation, fishing, cutting wood, catching animals, taking sand/coral, and constructing buildings/settlements were banned.

The actors involved in ecotourism activities

Economically, CMC TigaWarna Ecotourism in its management involved several actors (stakeholders). According to Maryono *et al.* (2005), these actors' characteristics are divided into three categories, namely primary, secondary (supporting), and key actors. The primary actors are directly affected by a plan or project and directly involved in the activity. The secondary actors do not have direct involvement in the project but concern and become facilitators in the decision-making process. The key actors are stakeholders who have legal authority in terms of decision making.

At CMC TigaWarna, the actors involved consisted of the primary, secondary, and key actors. The primary actors were the Bhakti Alam Foundation as the manager, the local community as a member and supplier of labor and raw materials, and providers of homestays, food stalls, and parking attendants around the area.

Secondary actors were the Malang Regency Fisheries Service, East Java Province Maritime Affairs and Fisheries Service, and the Ministry of Marine Affairs and Fisheries as supervisors and caring for the environment. Higher education institutions serve as advisors to other supporting stakeholders, namely the Malang Regency Environmental Agency and consumers.

Key actors were the Tambakrejo Village Government, the Malang Regency Culture and Tourism Office, and Perhutani Public Corporation.

Stakeholder mapping was shown as the following figure:

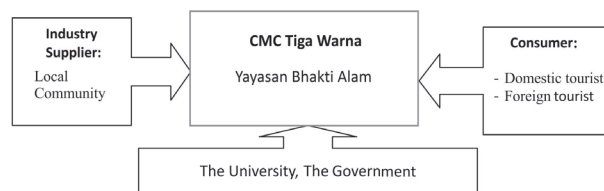


Fig. 1. Stakeholder's mapping at CMC Tiga Warna, Sendang Biru

The description of Figure 1 would be depicted as follows.

1. Yayasan Bhakti Alam

Yayasan Bhakti Alam Sendang Biru aims to organize various community empowerment-based coastal rehabilitation and conservation activities. They also guide local communities and research to increase education related to coastal ecosystems built together by some locals who appreciate coastal ecosystems' benefits for global life sustainability. The logo of Yayasan Bhakti Alam Sendang Biru can be seen in Figure 2.

This foundation has a vision of "Living with Nature," with the mission of building a community that loves the environment, forming conservation village communities, utilizing natural resources responsibly through community empowerment programs, and actively participating in the development of tourism villages in East Java. This foundation had members from the surrounding community who were members of the POKMASWAS



Fig. 2. The logo of Yayasan Bhakti Alam Sendang Biru

Gatra Olah Alam Lestari (GOAL), which was established earlier under the auspices of the Department of Marine Affairs and Fisheries Malang Regency; besides that, some volunteers also join as members of the foundation. Most of the foundation's members were people who used to work as forest encroachers, fishers who catch fish in a harmful way, and wood thieves. The approach and socialization were intensively carried out, resulting in better behavior changes. The communities that had been coached were also involved in the management of Tiga Warna CMC ecotourism. The foundation members were fostered to carry out tourism activities such as safeguarding, secretariat, local guides, coast guards, and boatmen. The management principles applied by the Foundation Bhakti Alam Sendang Biru which is oriented to Ecology, Social, and Economy. To date, 108 people are members of the foundation.

2. The Locals

Tourism development should involve the locals in its management. According to Sutedjo (2017), involving the community in management can generate income and increase community care for environmental sustainability and has a positive impact on various aspects of community life.

The community of Bhakti Alam foundation participation in the management of the CMC TigaWarna was protecting the environment by participating in community service activities carried out by members of the foundation and local communities. Communities that participated were adults and children through Si Dolan (Sinau dan Dolanan - Learn and Play) activities. Si Dolan activities aim to provide learning about sustainability and instill awareness of environmental sustainability from an early age. The community was also involved in cultural activities, namely LarungSaji conservation or AmbalWarso. The AmbalWarso activity was carried out as a form of public gratitude to God Almighty and nature given. The AmbalWarso had several activities starting from the opening, core, and closing held at Clungup Beach.

Communities around the CMC area had a high level of participation in mangrove ecosystem management. This community participation level analysis enriched the research data that also carried out by Yustinaningrum (2018). It showed that the community was directly involved and played an active role in managing the mangrove ecosystem, starting

from the planning, implementation, utilization, and evaluation stages. Furthermore, most of the locals also had adequate knowledge about mangroves and support the management of mangrove ecosystems in this area.

The University

Bhakti Alam Foundation SendangBiru collaborated with the Faculty of Fisheries and Marine Sciences, University of Brawijaya, as the organizational structure advisor at CMC Tiga Warna ecotourism management. The activities included community assistance, research, and lectures, especially on ecotourism.

The Government

Tambakrejo Village Government

The Tambakrejo Village Government as a key stakeholder issued Tambakrejo Village Regulation Number 03 of 2015 concerning Customary Law, Administration, Development, and the Environment, which stated that one of the core zones of the mangrove protection area is in the Clungup Beach area. This regulation is the basis for area management, including rules regarding the management group's duties and responsibilities, obligations and prohibitions, and procedures for collecting and receiving fund management.

Department of Marine Affairs and Fisheries (DMAF), Malang Regency

One form of local government support is through mentoring, carried out by the DMAF Malang Regency, starting in 2011. Government support in area management is also carried out through mentoring (BIMTEK, outreach, counseling), including HR training and guides' certification.

Department of Marine Affairs and Fisheries (DMAF), East Java

Apart from being a supervisor, in 2012, the Provincial DMAF built monitoring vessels and garbage collection vessels in 2016. The procurement of these facilities is a form of attention to monitoring the South Malang Regency waters' resources, including Sendang Biru.

Ministry of Marine Affairs and Fisheries

Based on data from the Directorate of Coastal and Small Islands Utilization, the Ministry of Marine

Affairs and Fisheries provided government assistance for managing mangrove ecosystems in Tambakrejo Village, Sumbermanjing Wetan District, Malang Regency. Government assistance has been channeled through Pengembangan Kawasan Pesisir Tangguh (PKPT) Program since 2013. Coastal area arrangement activities focus on human development, resources, infrastructure/environment, business, disaster preparedness, and climate change.

Some of the assistance provided in the program included mangrove seedlings (10,000 stems), construction of mangrove bridges (15 meters long, 1.5 meters wide, and 3 cm thick), procurement of solar cells (2 units), procurement of four boats (2 units), procurement of snorkeling equipment (3 units), procurement of HT communication equipment (1 unit), construction of toilets (4 units), manufacture of the septic tank (1 unit), procurement of diving equipment (1 unit), equipment documentation (1 unit), procurement electric generator set (1 unit), procurement of water pipe installation (2.75 m long), greening in the form of planting sapodilla and soursop seeds (205 trees), and procuring waste recycling machines (1 unit).

In 2017, assistance was also given to BhaktiAlam Foundation, SendangBiru, to support productive economic businesses and mangrove ecotourism development. The assistance was in the form of Jiangdong outboard engines (1 unit), Yamaha 15 PK outboard engines (1 unit), Yamaha 25 PK outboard engines (1 unit), Yamaha 40 PK outboard engine (1 unit), and 10,000 Watt electric generator (1 unit).

PerumPerhutani

Perum Perhutani is the legality of land ownership and fosters community participation through the LMDH (Forest Village Community Institution).

Department of Culture and Tourism of Malang Regency

Based on the Decree of the Minister of Tourism, Post and Telecommunication Number 5 / UM.209 / MPPT-89 regarding the Guidelines for the Administration of Sapta Pesona, SaptaPesona is a condition that must be manifested when visiting Indonesia. SaptaPesona (seven enchantments) consists of seven elements: safe, orderly, clean, cool, beautiful, friendly, and memorable.

As reported in Rahmawati *et al.* (2017), in line with the increased tourism development performance, Sapta Pesona Program is refined into the

SadarWisata concept as written in Kelompok SadarWisata (Pokdarwis) guidance (2012).

According to Ramanda *et al.* (2019), the Tourism Department's role as the tourism management authority decreases. The tourism department acts more as a tourist event maker and does not act as a tourist destination manager—one example of a problem is overlapping management. If there are problems related to infrastructure around tourist destinations, the Tourism Department cannot directly handle and provide solutions because the area is the Perhutani's scope. Permits from Perhutani are required to build and manage infrastructure in the area.

Conclusion

The CMC Tiga Warna Ecotourism is managed by the Bhakti Alam Foundation, as the key stakeholder. It has local members who are POKMASWAS Gatra Olah Alam Lestari (GOAL) members by applying conservation orientation to apply sustainable tourism. Other actors involved are local communities, consumers, and the government.

Suggestions

Problems related to the overlapping roles of Government Agencies hampered tourism management. For instance, infrastructure problems happened because Perum Perhutani owns the tourism area's licensing, but Tourism Office undergoes tourism management, which made the development complicated. Therefore, it is necessary to negotiate and cooperate between agencies to pursue better ecotourism management.

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