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Community-Based Whale Sharks Conservation to Strengthen Marine Tourism Management in Sumbawa

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ABSTRACT

Sumbawa is famous for its marine tourism, apart from the beauty of its beaches, Sumbawa also has marine fauna that attracts the attention of tourists, namely whale sharks. It is recorded that there are around 99 species of Whale Sharks located in Saleh Bay, Sumbawa. Thus, making Saleh Bay the location with the second largest whale shark population in Indonesia and UNESCO designated Saleh Bay as part of the SAMOTA biosphere reserve. Currently, whale sharks have protected fauna according to the decree of the Minister of Marine Affairs and Fisheries No. 18 of 2013. This is due to the pollution of whale shark habitats by pollutants including garbage and microplastics. In addition, the Overexploitation of whale sharks is some of the causes of the significant decline in whale shark populations. Marine ecotourism activities in the form of exhibiting Whale Sharks to tourists can be an alternative way of sustainable use because it has minimal impact on individual Whale Sharks, in addition, marine ecotourism activities can also provide economic benefits to the Sumbawa community and regional development including supporting efforts to protect and preserve the whale shark fauna. The Study "Community-Based Whale Shark Conservation to Strengthen Marine Tourism Management in Sumbawa "aims to present a blue economy model for coastal communities in Sumbawa and increase community participation in conservation activities, as well as improve the welfare of coastal communities in Sumbawa.

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1. INTRODUCTION

Whale shark tourism is a form of development of the growing animal-watching tourism industry and offers great opportunities for people to interact with these animals. Swimming with whale sharks is an activity that gives a different impression to visitors. The development of whale shark tourism has been carried out in several countries, one of which is in Ningaloo (Western Australia) in 1989, then since then, the whale shark tourism industry has begun to develop and is popular and economically profitable and tourism like this has begun to be developed in Sumbawa Regency.

Sumbawa is one of the regencies in West Nusa Tenggara Province, which is famous for marine tourism, one of which is Whale Shark tourism, where whale shark tourism is in the Saleh Bay tourist area and there are around 99 species of Whale Sharks in this Bay, thus making this Saleh Bay tourism as a location with the second largest whale shark population in Indonesia then UNESCO also designated Saleh Bay as part of the SAMOTA Biosphere Reserve. Currently, whale sharks have protected fauna following the decree of the Minister of Marine Affairs and Fisheries No. 18 of 2013, this is caused by pollution of whale shark habitat by pollution including garbage and microplastics. In addition, the slow reproduction such as sexual maturity and the number of saplings produced tends to be small, and the exploitation of Whale Shark fishing will drive a significant decrease in the whale shark population.

Marine ecotourism activities in the form of Whale Shark exhibitions for tourists can be an alternative way of sustainable use because it has a minimal impact on individual whale sharks, in addition, marine ecotourism activities can also provide economic benefits for the people of Sumbawa and regional development including supporting efforts to protect and preserve whale shark fauna, so it is necessary to conduct

studies related to "Community-Based Whale Shark Conservation to Strengthen Marine Tourism Management in Sumbawa, with the aim of being able to become a blue economy model for coastal communities in Sumbawa and increase community participation in conservation activities, as well as improve the welfare of coastal communities in Sumbawa.

The concept and term Community Based Tourism (CBT) began to emerge in the mid-1990s (Asker et al. 2010). In general, CBT is a small-scale tourism concept by prioritizes interaction between visitors and local communities as hosts of tourism with the concept of CBT is managed and owned by local communities where local culture and the local environment are the main capital in the development of this community-based tourism through services presented by local communities (Ming et al. 2016; Asker et al. 2010). The concept of CBT is closely related to several other tourism terms such as ecotourism, and rural tourism where the concept also prioritizes the benefits of tourism for the local community as hosts or actors and main stakeholders in the management and development of tourism (Ming et al. 2016; Asker et al. 2010; Tolkach 2015).

According to Blackstock (2005) and Asker et al. (2010) in general, in its implementation, the CBT concept usually has several criteria namely (1) aims to provide benefits to local communities, especially rural or indigenous peoples who are in rural areas that contribute to their welfare, environment, and cultural assets, (2) local communities as hosts who entertain tourists, (tourism management is carried out communally by local communities, (4) equitable distribution of economic benefits or benefits, (5) using a portion of profits or resources for community development or to maintain and protect cultural assets or natural heritage of the community, (6) involving the community in tourism planning, decision-making in the development and implementation of tourism activities.

This study aims to analyze the perceptions of local communities regarding whale shark conservation in Saleh Bay, analyze stakeholders that play a role in Whale Shark conservation activities, and analyze community participation in Whale Shark conservation activities.

2. DATA AND METHOD

This research has been conducted in the Saleh Bay Area, Labuhan Jambu Village, Tarano District, Sumbawa Regency, Nusa Tenggara Province in July-August 2022, for the research location can be seen in Figure 1.

The research was conducted using qualitative methods, which were designed as case study research. Qualitative data were collected by interviewing people living using questionnaires around the Saleh Bay and local government officials and or conducting focus group discussions (FGDs) with relevant stakeholders. Secondary data analysis has also been used to supplement primary data collection (through Surveys or interviews with the public).



Figure 1: Research location (Labuhan Jambu Village)

3. RESULT AND DISCUSSION

Whale Shark Population in Saleh Bay

Whale sharks are one of the largest fish in the world and belong to the type of elasmobranch fish that have full protection status both globally and regionally. On a global scale, whale sharks have been included in the IUCN red list and are included in the categories of appendices 1 and 2 by CITES, while in Indonesia their protection is regulated by the Ministry of Environment and Forestry. No. 18 of 2013.

In Indonesia, whale sharks appear in several aquatic locations, but Saleh Bay is one of the newly discovered whale shark emergence locations so preliminary data collection on whale shark population

data such as number, appearance, sex ratio, and physical health needs to be recorded as an effort to protect and preserve this species. Whale shark monitoring activities in Saleh Bay were first carried out in September 2017 by Conservation International (CI).

According to secondary data obtained from Conservation International (2022), which has been monitoring for several years before. Whale sharks often appear in the morning when the last net lifting is lifted and at that time it is a good time to monitor. Throughout the monitoring activities that have been carried out in recent years, it shows as many as 49 whale shark individuals with an average characteristic of having a size of 5 meters, with male sex of 42 and a female of 7 individuals. By referring to the whale shark manual (KKJI 2015), it shows that this location is a nursery ground because it is still included in the juvenile category. The percentage of resighting obtained is 49% but shows a consistent trend every month. Based on the number of individuals found on average being juvenile and having a consistent trend of emergence, the Saleh Bay area can be ascertained to be a habitat for whale sharks.



(a)



(b)



(c)

Figure 2 (a-c): Whale shark sightings in Saleh Bay
Source: SuaraNTB.com

Based on information from local stakeholders such as village chiefs and Conservation International, there are around 99 species of whale sharks that follow in Saleh Bay, thus making this Saleh Bay tourism a location with the second largest whale shark population in Indonesia then UNESCO also designated Saleh Bay as part of the SAMOTA Biosphere Reserve.

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Community perceptions of Whale Shark conservation

According to Alex Sobur (2013), perception is an experience of objects, events, or relationships obtained by inferring information and interpreting messages. Community perception is a process of sensory clues and relevant past experiences organized to provide the community with a structured picture. The term public perception is usually used to express the experience of an object, or an event experienced (Phuong, 2020; Trent 2005; parker 2005). This perception is defined as the process of combining and organizing sensory data (vision) to be developed in such a way that society can be aware of its surroundings, including being aware of itself.

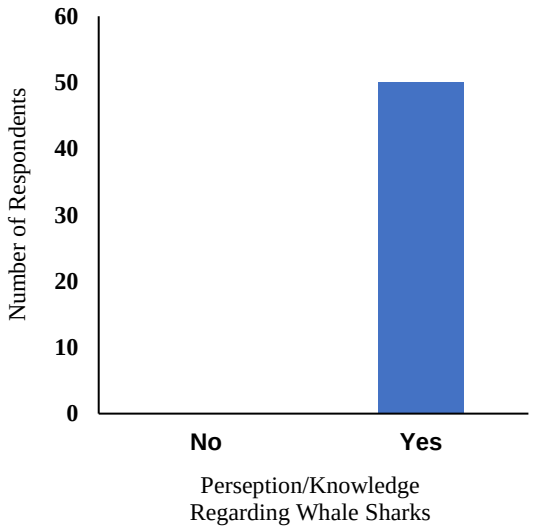


Figure 3: Community perceptions of whale sharks

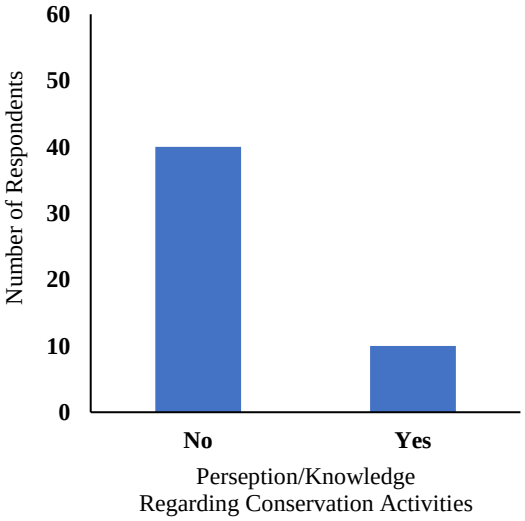


Figure 4: Community perceptions of whale shark conservation activities

Based on a survey that has been conducted in Labuhan jambu Village (Figure 3) all communities there already know the population and characteristics of whale shark species in Saleh Bay, but based on Figure 3, it is very unfortunate that there are still many communities who do not know about conservation activities.

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Stakeholders who play a role in Whale Shark conservation activities

Stakeholder analysis is used by organizations to identify key stakeholders for projects and other activities, understand stakeholder positions, and develop collaboration between stakeholders and project teams. defined as a tool that can the main goal is to ensure the success of any project or future change (Lee 2011).

Table 1 below shows the identification of stakeholders who play an important role in whale shark conservation activities in Labuhan Jambu Village, Sumbawa. The Headman, Fisheries agency, and Tourism agency in Sumbawa Regency have a significant influence on the implementation of conservation activities and when making policies related to community conservation activities feel it is important to carry out this policy, then followed by the role and Pokdarwis and Pomaswas, Ministry of Marine Affairs and Fisheries international and NGOs like Conservation International are also quite instrumental in the implementation of this whale shark conservation activity.

Table 1: Stakeholder identification (Robert 2009)

		Influence			
		Significant	**Some**	**Little**	**None**
Important	**Significant**	Headman, Fisheries agency, and Tourism agency in Sumbawa Regency	Ministry of Marine Affairs and Fisheries, NGO (CI)	x	x
	Some	Pokdarwis and Pokmaswas	x	x	x
	Little	x	x	x	x
	None	x	x	x	x

Note:
Pokdarwis = Tourism awareness group
Pokmaswas = Supervisory community groups
CI = Conservation International

Besides that the stakeholders who are involved in the Whale Shark conservation activities in Saleh Bay Sumbawa Regency include The Sumbawa regency local government (Fisheries agency and Tourism agency in Sumbawa Regency) Ministry of Marine Affairs and Fisheries, Pokdarwis, Pokmaswas, and Conservation International (CI), Indonesia.

Community participation in Whale Shark conservation activities.

The local communities in Labuhan Jambu, Saleh Bay have participated in whale shark conservation activities including conducting beach clean-up, marine ecotourism, labeling, or numbering (Tagging) The whale sharks and stop-over-exploitation are seen in figures 5 and 6.



Figure 5: Beach clean-up activity
Source: NTB-News



Figure 6: Whale shark labeling
Source:NTB-Inews



Figure 7: Over-exploitation
Source: sharkconservation.org

There is another community participation in whale sharks' conservation activities, such as the existence of Pokmaswas (Supervisory community groups) and Pokdarwis (Tourism awareness group) which play a role in helping the government in the management of marine ecotourism.

4. CONCLUSIONS

Saleh Bay is an area in Sumbawa Regency which is a biosphere reserve because there is a protected animal habitat, namely whale sharks with the second largest population in Indonesia. Most people know the species of whale shark but do not know what conservation activities are some of the stakeholders participating in whale shark conservation activities are local governments and international NGOs, Local communities have sufficiently participated in Whale Shark conservation activities, namely by carrying out beach clean-up activities, Marine ecotourism and prohibiting over-exploitation activities and the suggestion, it is necessary to carry out socialization and education activities related to the importance of conservation of whale sharks to the community.

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