

## The role of stakeholders in marine conservation areas in Wakatobi National Park, Indonesia

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**Abstract.** Wakatobi National Park (WNP) is a marine conservation area, the management of the area being based on zonation system, consisting of core zone, marine protection zone, tourism zone, local utilization zone, general utilization zone and special zone/land. Stakeholders are those that influence or are influenced by decisions or actions. This study aims to determine the role of stakeholders in the management of marine conservation in WNP. This research was conducted in WNP Wakatobi Regency, Southeast Sulawesi Province, Indonesia, between October to December 2016. Data collection method used in this research is semi-structured interviews from informants, direct observation in the field and literature study. The analysis was conducted descriptively through three stages including stakeholder identification, role-based classification of stakeholders, and understanding of stakeholder relationships. The results of identifying stakeholders involved in the management of the conservation area of WNP are 16 stakeholders. The stakeholders are divided into several groups: the government consists of central government and local government, private groups, local communities, and academics. Stakeholder roles and interests are divided into 4 (four quadrants), as subjects, key players, crowd, and context setters. The role of stakeholders within the WNP area can provide important information in the management of conservation areas.

**Key Words:** stakeholders, conservation area, interests, influence.

**Introduction.** National parks are large natural protected areas used to protect large-scale ecological processes, along with complementary characteristics of species and ecosystems in the region; the characteristics of ecosystems and species that make the full national park can be used for environmental education, scientific research as well as to be used for recreation and culture, and to meet the people living around the national park (Dudley 2008). Principles and guidance on conservation management in Indonesia shall be Law No. 5 of 1990 on the conservation of biological natural resources and their ecosystems through: (1) protection of life support systems; (2) preservation of the diversity of plant and animal species and their ecosystems; and (3) the sustainable use of biological natural resources and their ecosystem (Santoso 2008). Conservation area management is conducted based on zonation system, zoning concept is used to control human activities so that the activities carried out do not affect or damage the natural resources (Rotich 2012).

Wakatobi is located amidst the world's coral triangle and has a high biodiversity, recorded 396 species of scleractinian corals, 942 species of fish, 31 species of fungal corals, 31 species of foraminifera and 34 species of stomatopods (Pet-Soede & Erdmann 2003). Prior to the 1990s, the Wakatobi region was almost unknown to foreign visitors and researchers. Today, marine scientists, conservationists, policy makers, and scuba divers value Wakatobi for its crystal clear water, stunning underwater scenery, and pristine coral reefs. These images are articulated and distributed to the outside world through speech, text, photography, and film (Von Heland & Clifton 2015). On that basis, this region was designated by the Indonesian government as a national park under the

name of Wakatobi Islands National Park (WINP) through Decree of the Minister of Forestry No. 393/KPTS-VI/1996 dated July 30, 1996, and its stipulation was made through the Minister of Forestry Decree No. 7651/Kpts-II/2002 dated August 19, 2002 covering an area of  $\pm 1.39$  million hectares including the waters and the entire island region. Then with the issuance of Forestry Minister Decree No.P.29 of 2006 which sets the change of name Wakatobi Islands National Park (WINP) in to WNP. WNW zonation consists of: core zone of  $\pm 1,300$  ha, marine protected zone of  $\pm 36,450$  ha, tourism zone covering  $\pm 6,180$  ha, local utilization zone of  $\pm 804,000$ , general utilization zone of  $\pm 495,700$  ha and special zone/land area of  $\pm 46,370$  (WNP 2008). This zoning system is also used in several national parks in Indonesia, one of them in Karimunjawa National Park (Yuliana et al 2016).

Since the establishment of Wakatobi as a park conservation area, there are various problems in the implementation of management, and this is due to the role and influence of the parties has not been maximized in supporting conservation. Regulations in conservation areas that prohibit the use of excessive resources and protected biota have not been fully accepted by the community. The rules have not been fully accepted by the public (Adimu 2013), developing conflict of authority in the policy of conservation area with managers from central government and local government (Clifton 2013). Stakeholders are those that influence or are influenced by decisions or actions by either government agencies, individual communities and others (Reed et al 2009). This study aims to find out who are the stakeholders who play a role in the conservation area in WNP, and to determine the role of each stakeholder.

## Material and Method

**The location and the time of study.** This study was conducted in WNP in Wakatobi regency, Southeast Sulawesi Province, Indonesia between October-December 2016. Research sites can be seen in Figure 1.

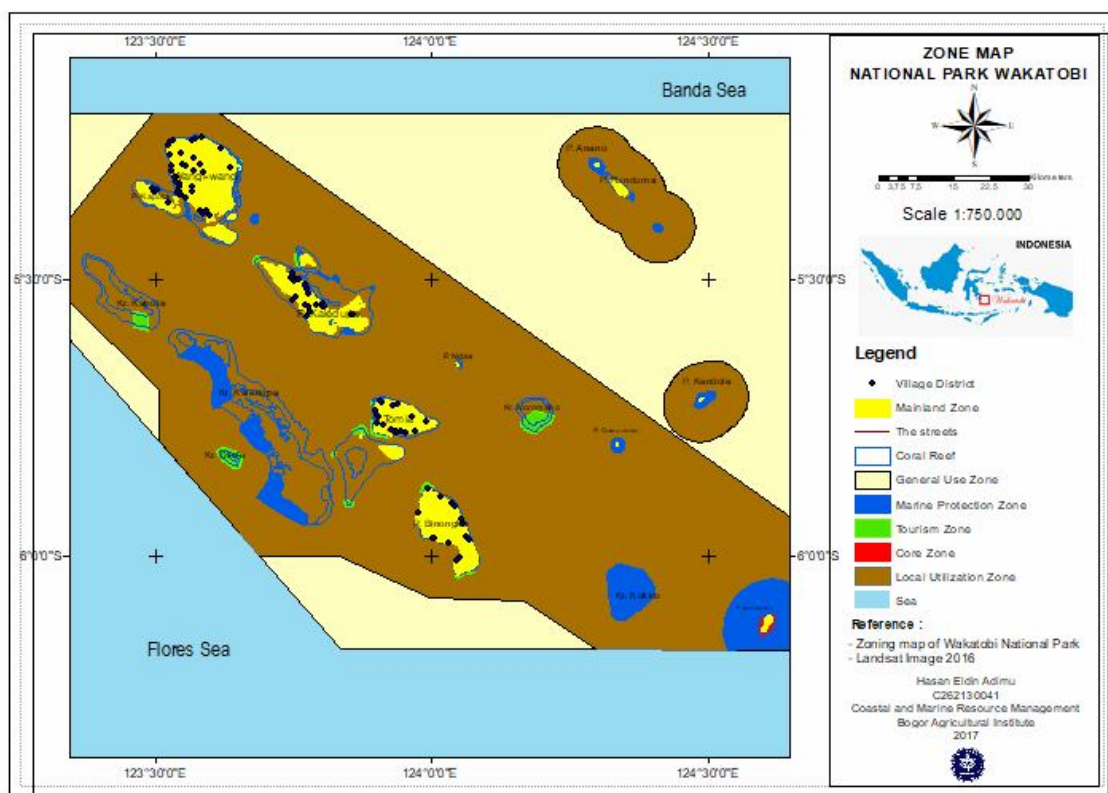


Figure 1. Wakatobi National Park.

**Tipes and sources of data.** Data collection method used in this research is primary method that is semi structured interview and direct observation in field and secondary

method that is literature study, research result reports and other supporting materials. Interview informants consist of the central government, local government, community, and customary institutions. Determination of source of interview informant is done by using purposive sampling method of sampling technique of data source with certain consideration (informants who know best about conservation). The types of data and collection methods based on the research objectives are presented in Table 1.

Table 1

The types of data and collection methods based on research objectives

<i>Aim</i>	<i>Variables measured</i>	<i>Methods of data collection</i>
Identify stakeholders within the WNP marine conservation area	Identify stakeholders within the WNP marine conservation area	Semi-structured interviews and field observations
Analyze the role of stakeholders in TNW marine conservation area	Analyze authority and function within the WNP marine conservation area	Semi-structured interviews, field observations and data processing results

**Data analysis.** Stakeholder analysis uses the approach developed by Reed et al (2009), through several disciplines, such as the health sector policy of Schmeer (2000) and Freeman (1984). Stages include stakeholder identification, stakeholder classification, and knowing relationships among stakeholders (Freeman 1994). Identification is done in order to find the stakeholders involved in the conservation area in WNP. However, the analysis used in this study is only to recognize the role of stakeholders in the WNP marine conservation area. Stakeholder classification is done after stakeholders are identified by grouping and differentiating between stakeholders. The formulation of influence and importance matrix is based on data obtained from interviews with key informants transformed into scoring data and subsequently grouped according to the classification of stakeholders. Quantitative determination of question scores on stakeholder identification and mapping refers to the measurement of five-tiered data, the procedure being the result of a modified model developed by Abbas (2005) and Roslinda et al (2012). In Table 2, a score of 5 questions summed up and the value is mapped in a matrix of influence and interests.

Table 2

Measurement of scores on the role of interests and stakeholder influences

<i>Score</i>	<i>Value</i>	<i>Value</i>	<i>Description</i>
<i>Interests of stakeholder</i>			
5	21-25	Very high	Has high interests in the area
4	16-20	High	Has interests in the area
3	11-15	High enough	Has low interests in the area
2	6-10	Not high enough	Lack of interest in conservation areas
1	0-5	Low	No role in conservation area
<i>Influence of stakeholders</i>			
5	21-25	Very high	Greatly affect the conservation area
4	16-20	High	Affects the conservation area
3	11-15	High enough	Simply affect the conservation area
2	6-10	Not high enough	Less influence on conservation area
1	0-5	Low	Does not affect conservation area

Modified after Abbas (2005).

The result is a matrix consisting of four quadrants, as subjects, key players, crowd, and context setters. Subjects have high importance but low influence. Although it supports activities, its capacity for impact may not be present. Key players are active stakeholders because they have a high interest and influence on the development of a project. The crowd is a stakeholder who has little interest and influence over the desired outcomes

and this is a consideration to include in decision making. Context setters have high influence but little importance so that it can be a significant risk to be monitored (Reed et al 2009). Stakeholder analysis results are classified according to the degree of influence and importance illustrated in Figure 2.

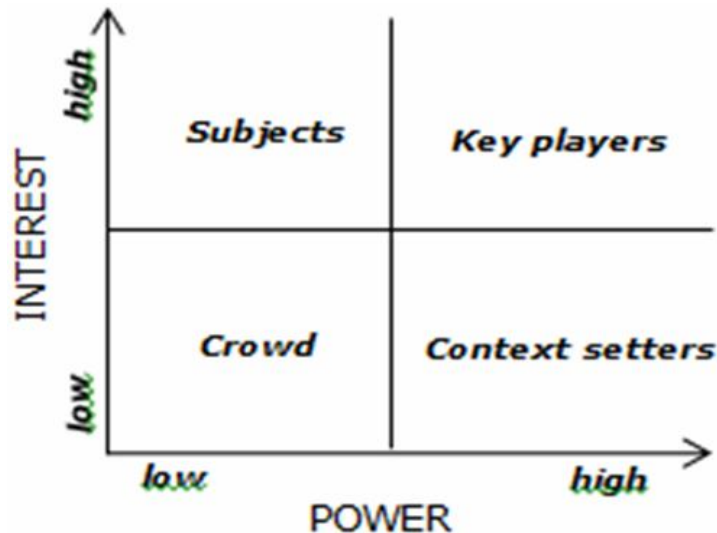


Figure 2. The matrix of influence and interests (Reed et al 2009).

**Results.** The results of the analysis found as many as 16 main stakeholders. These stakeholders are divided into: government groups composed of central government and local government, non-governmental organizations, local communities, customary institutions, academia and the private sector. More details can be seen in Table 3.

Table 3  
Stakeholders in the marine conservation area of WNP

<i>Stakeholders</i>	<i>Description</i>
Wakatobi National Park Authority	Central government
Provincial government	Provincial government
Planning, Research and Regional Development	Local government
Environmental Agency	Local government
Department of Tourism and Creative Economy	Local government
Department of Marine and Fisheries	Local government
World Wide Fund for Nature	Non-governmental organization
The Nature Conservancy	Non-governmental organization
Rare	Non-governmental organization
Customary Institutions	Local indigenous peoples
Forum Communities	Local people
The bajau tribe	Local people
Forum Community tours	Local people
TNI-POLRI	Regional Security
Research institutions	Academics
Tourist entrepreneur	Private

Government-related stakeholders are Wakatobi National Park Authority (WNPA) representing the central government, a Technical Implementation Unit (TIU) unit in the representative area of the Ministry of Environment and Forestry (MEF) under the Directorate of Natural Resources and Ecosystem Conservation (NREC) in the management of conservation areas in WNP. Representatives of local governments are

provincial and district governments, provincial governments have authority in management, utilization and regulation in the area covering fisheries and marine, forestry and mining activities based on Unity RI Law No. 23 of 2014 on regional autonomy. The district government is designated as an autonomous region through Law No. 29 of 2003 on the establishment of Bombana district, Wakatobi district, and North Kolaka district, in Southeast Sulawesi Province. According to WNPA (2008) the marine conservation area of WNP is located within the local government area of Wakatobi regency causing overlapping area.

The local government of Wakatobi district is represented by a regional apparatus unit such as the planning agency, research and regional development and has a duty in preparing the regional development plan; the environmental agency is assigned in environmental permit; the fisheries is an institution in charge of marine and fisheries development, among others, empowering small-scale fishermen and cultivating fish management and running the policy of Wakatobi regency government in maritime sector; and tourism and creative economy have duty in tourism development.

The district government of Wakatobi is represented by a regional work unit (such as the planning agency), and regional development has a duty in preparing the regional development plan, the environmental agency being assigned in environmental permit; Department of Marine and Fisheries is an institution in charge of marine and fisheries development, among others, empowering small-scale fishermen and cultivation of fish management and running policy of Wakatobi regency government in maritime and tourism; and creative economy have duty in tourism development. The entire working area of the district government of Wakatobi is within the WNP area so that it can affect the improvement of conservation management.

The next stakeholders are non-governmental organizations, the World Wide Fund for Nature (WWF), The Nature Conservancy (TNC), and Rare. WWF is an international institution engaged in conservation in Indonesia and one of its working areas is in Wakatobi. WWF programs in Wakatobi include surveys and monitoring, sustainable livelihoods, tourism, and fisheries as well as outreach and community awareness. WWF is working with relevant partners to support Wakatobi National Park Board to improve the effectiveness of park management. TNC is an international institution that has worked in Wakatobi for the last 10 years helping the parks in effective conservation area management. The next is Rare, an international organization that is engaged in nature conservation, where one of the programs undertaken is in cooperation with the community and government in the management of Fisheries Area Access (PAAP). Activities undertaken are to educate the community to improve the knowledge and capacity of the community, and to keep the fishery and marine resources in order to stay sustainable.

Community stakeholders are divided into several groups, namely customary institutions, community forums, community tourism forums, and bajau community. The customary institutions in Wakatobi are led by a customary device called Sara. Each customary territory has sovereignty in the management of its territory. After the Indonesian government system changed to the Unitary State of the Republic of Indonesia in 1945, the area is still applying the system of kingdom and sultanate including in Wakatobi, where at that time still joined the sultanate Buton which also changed into the state of Indonesia. An example is the Kadie Liya customary institution located on Wangiwangi Island and the Barata Kahedupa customary institution located on the island of Kaledupa. Both institutions play a role in restoring traditional values that have long been lost, especially in the effort of natural resource management. One of the customary rules reactivated is the customary law of Barata Kahedupa on the management of coastal and marine natural resources in the Limbo Tombuluruha Territory which has been written in a customary regulation No. 1 2017. The next group as stakeholders in the community is the local community forum scattered on several islands in WNP, among others, the forum for Kahedupa taudani (Forum Kaledupa Taudani-FORKANI), tomia fishing community (Komunitas Nelayan Tomia-KOMUNTO), the fragrant fishing community (Komunitas Nelayan Wangiwangi-KOMENANGI), and community forum of Poasa'asa. This community forum is held by local people who work as fishermen or not. The focus of this

institution is to preserve and conserve resources in order to be sustainable, partnering with government and non-governmental organizations in the protection of natural resources and utilizing fisheries in an environmentally friendly manner and encouraging people to utilize fishery resources in a sustainable way. Another group is the forum of the tourism community, where the activities conducted are to carry out education and socialization to the tourist actors in order not to spoil tourism activities. Other activities are utilizing local community-based tourist services to improve the economy of the community, some of which consist of the waha tourism community (WTC), the tourism conscious group of the capital city, and the tourism agency (Lembaga Pariwisata-LEPA) Mola Raya.

Other stakeholders are research institutes, educational or academic institutions that carry out research and community service such as Halu Oleo University, Indonesian Research Institute (Lembaga Ilmu Pengetahuan Indonesia-LIPI), and several other academic institutions involved both nationally and internationally. There are also tourist service entrepreneurs from local communities as well as private parties. The existence of private parties has long utilized the natural resources as a tourist attraction in marine conservation areas in WNP, especially marine tourism. People use the sea as a source of life within the conservation area so that an effort to improve management is very important to be done. The indigenous people living in Wakatobi are a long-lived Buton tribe who settled before Wakatobi was designated as a conservation area and the Bajau tribe which came to live and settled in the coastal and marine areas of Wakatobi. The result of interest mapping and stakeholder influence in matrix form can be seen in Figure 3.

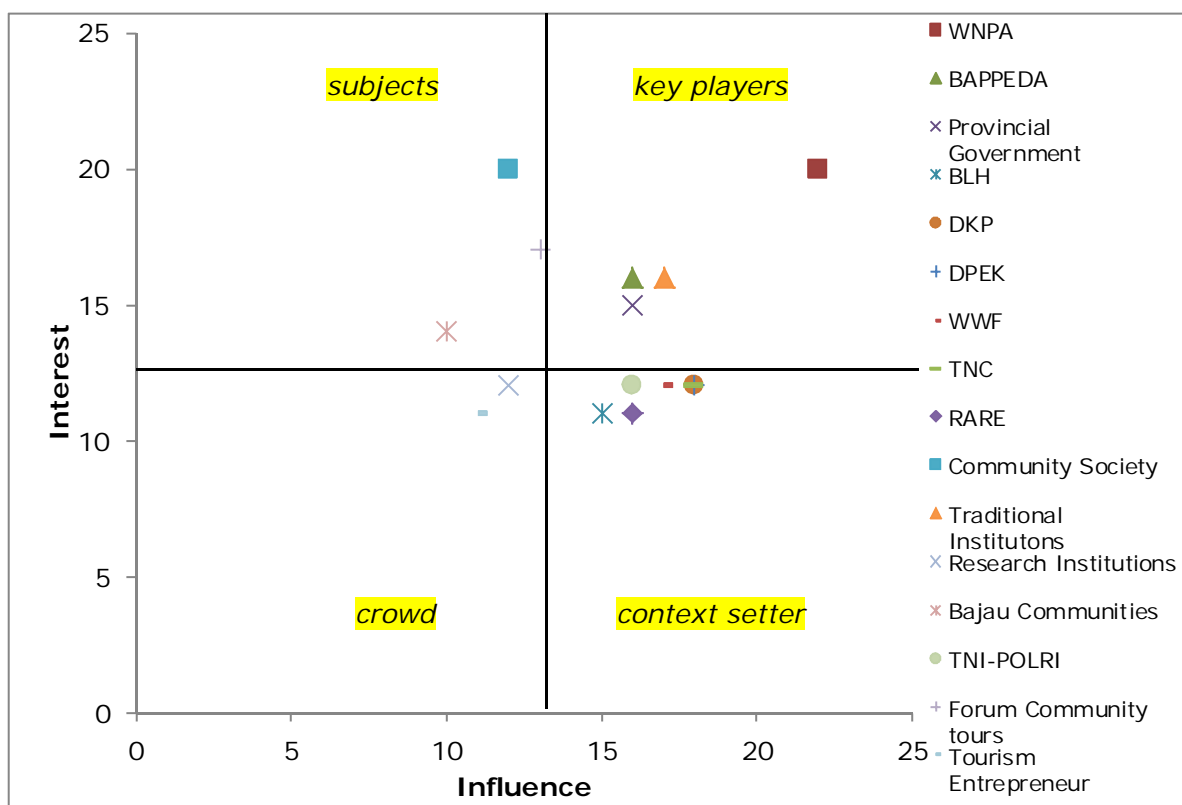


Figure 3. Matrix of stakeholder interest and influence of stakeholders in WNP conservation areas.

Reed et al (2009) classified stakeholders based on their influence and importance as subjects, key players, crowds, and context setters. Subjects have high interests but their influence is low. These stakeholders can be influential when forming alliances with other stakeholders. Key players are active stakeholders because they have a high interest and influence on the development of a project. Crowd is a stakeholder who has little interest and affects the desired outcomes and this is a consideration to include in decision

making. Context setters have high influence but little importance so it can be a significant risk to be monitored.

***The role of stakeholders within the WNP area.*** Based on the stakeholder matrix of Figure 3, the role of the subjects is occupied by community groups, i.e community forums and bajau tribes. This condition shows that stakeholders in the subject group have high interests, but the influence is low. In case of the local community forums, FORKANI, KOMUNTO, KOMENANGI, and the Poasa'asa community, members of these communities work more as fishermen and seaweed farmers and thus have a very high interest in utilizing resources in conservation areas. Their influence in the region is quite high, if this forum cooperates with government and non-governmental organizations will be very helpful in improving the management. UNDP (2012) Tomia Fishermen Community (Komunitas Nelayan Tomia-KOMUNTO) is an community based organization consisting of representative fishing groups in East Tomia, Indonesia. It aims to support sustainable and natural resource management to improve the welfare of its members. The organization evolved in response to community concerns against foreign invasions to areas under traditional fisherman's management, destructive fishing methods (including dynamite and poison fishing), and lack of clarity and coordination in the management of Wakatobi's natural resources, particularly in level of local government. KOMUNTO is designed to vote for local communities and to create constructive relationships between community fishermen and relevant government stakeholders. By facilitating the ongoing exchange of information and dialogue, KOMUNTO targets to inform policy-making in a manner that is responsive to local needs. KOMUNTO aligns and coordinates its activities with the authorities of Wakatobi National Park, District Office of Fisheries and Marine Affairs, and The Nature Conservancy-World Wildlife Fund Wakatobi Joint Program.

The two most important partners are The Nature Conservancy-Worldwide Fund for Nature Wakatobi Joint Program and Wakatobi National Park Authority (WNPA). These stakeholders often assist in management process so that these stakeholder relationships must be well maintained (Reed et al 2009; Thompson 2011). Forum of the tourism community consists of waha tourism community (WTC), tourism conscious group capital city, and tourism agency (Lembaga Pariwisata-LEPA) Mola Raya. Tourism community forums have an interest in terms of utilization of the area to increase people's income through tourism objects and tourism services.

The role of stakeholders (key players) occupied by WNPA, represents the central government, provincial government, BAPPEDA and data institutions. WNPA is an institution that performs duties and functions in the management of marine conservation areas through protection, preservation and utilization. The provincial government and BAPPEDA have strong interests and influence in the region, which can be seen from their authority in making policies, especially in improving people economy and regional development. While customary institutions have strong roles and interests in maintaining cultural values and local wisdom in terms of protection and sustainable use of resources.

The role of stakeholders as context setters consists of the Office of Marine and Fisheries, the Environment Agency (DKP), and the Department of Tourism and Creative Economy (DPEK); these three staffs are representatives of the district government. Roles and interests in the region are in terms of improving the economy of the community through fisheries, tourism and economic development. Other stakeholders are from community self-help agencies, WWF, TNC, and Rare. These three institutions are international organizations engaged in the environment so that it has a high influence especially in the protection and management of conservation areas. Some activities that have been done with other stakeholders in the WNP area are important resource monitoring activities (Purwanto et al 2010). The private sector undertakes the tourism business as mentioned by Suaib et al (2016), that is Wakatobi Dive Resort which has considerable influence in tourism, Patuno resorts and some others. The existence of the private sector is still lacking in supporting conservation management.

**Conclusions.** Each stakeholder has a role in the utilization of the area in WNP, the role can be grouped as subjects occupied by local communities or communities, key players are occupied by the central government and local government and customary institutions, the crowd is occupied by SKPD daerah government and non-governmental organizations, as well as the context Setters are occupied by research institutions and private or tourism businesses. The role of stakeholders in the area of WNP can provide preliminary information in the revamping of Wakatobi national park management plan in the future.

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