

# Stakeholder analysis in the management of irrigation in Kampili area

Jumiati<sup>1</sup>, M S S Ali<sup>2</sup>, I M Fahmid<sup>2</sup>, Mahyuddin<sup>2</sup>

<sup>1</sup> Graduate Student, Hasanuddin University, Jalan Perintis Kemerdekaan KM 10, Makassar, 90245, Indonesia.

<sup>2</sup> Department of Agriculture Socio-Economics, Faculty of Agriculture, Hasanuddin University, Jalan Perintis Kemerdekaan KM 10, Makassar, 90245, Indonesia.

E-mail: *jumiati.amin@unismuh.ac.id*

**Abstract.** Irrigation has appreciable contribution in building food security, particularly rice crops. This study aims to analyze the role of stakeholders involved in distributing of irrigation water. The study was conducted in the Kampili Irrigation Area in South Sulawesi Province Indonesia, the data were obtained through observation and interviews with stakeholders involved, and analysed by stakeholder analysis, based on the interests and power held by the actors. This analysis is intended to provide an optimal picture of the expected role of each stakeholder in the management of irrigation resources. The results show that there were many stakeholders involved in irrigation management. In the arrangement of irrigation distribution there was overlapping authority of the stakeholders to its management, every stakeholder had different interests and power between each other. The existence have given positive and negative values in distributing irrigation water management, then in the stakeholder collaboration there was contestation between them. This contestation took place between the agriculture department, PSDA province, the Jeneberang River Region Hall, the Farmers Group and the P3A.

## 1. Introduction

Food sovereignty can be achieved if supported by good irrigation. Irrigation is a requirement for paddy fields therefore in order to sustain water supply for irrigation, it needs improvement from upstream to downstream, from the presence of rivers and dams as the vital infrastructures [1]. One of the existing irrigation sources In South Sulawesi is coming from Jeneberang River. Jeneberang River is a legendary river in Gowa regency. Jeneberang is one of 15 major rivers in Gowa. Started from Mount Bawakaraeng, flowing through the area of Gowa Regency and disembugue into Barombong and Tanjung Bayang. Jeneberang River which has a length of 75 km with the extent (coverage area) of 727 km<sup>2</sup> flowing from Mount Bawakaraeng, this river often overflows during the rainy season that occurred in December to January. The most severe condition occurred in 1976 almost 2/3 city of Ujung Pandang (Makassar) was inundated. This water comes from the overflowing of the Jeneberang River in the downstream area of the Sungguminasa Bridge, and drainage channels like Sinrijala, Jongaya and Panampu are inadequate in catching water, on the other hand during the dry season unable to meet the needs of irrigation and drinking water [2, 3, 4, 5].

The dams that handle irrigation are Bili - Bili, Bissua and Kampili irrigation. Service area capacity, Bili - Bili is 2,350 ha, Bissua is 10,758 ha and Kampili area is 10,545 ha. In the technical and operational implementation in the management of Kampili Irrigation Area, there are many stakeholders involved, from the central to the local level [4].



The objectives to be achieved in this research were: 1) to identify stakeholders in the management of Kampili irrigation; 2) to get an explanation of interest and influence of each stakeholder in the management of Kampili irrigation

## 2. Research Method

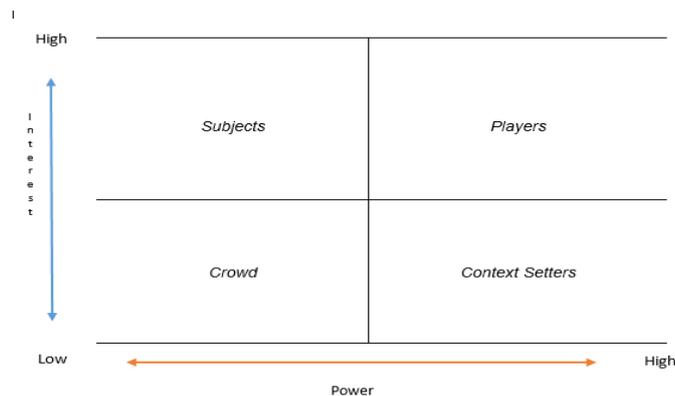
This research paradigm used constructivism paradigm, this research type was a descriptive by using case study approach. The research was conducted at Kampili Irrigation Area in South Sulawesi Province of Indonesia

## 3. Data collection

Data collection was done through observation and interview to a number of informants [6, 7]. Interview activities intended to gain an explanation of the interests and influence of each stakeholder, as well as the role of stakeholders in accommodating the interests of farmers in obtaining and fulfilling their needs in obtaining good irrigation.

## 4. Data analysis

Analysis of data used stakeholder based on interest and power [8, 9, 10] (figure 1).



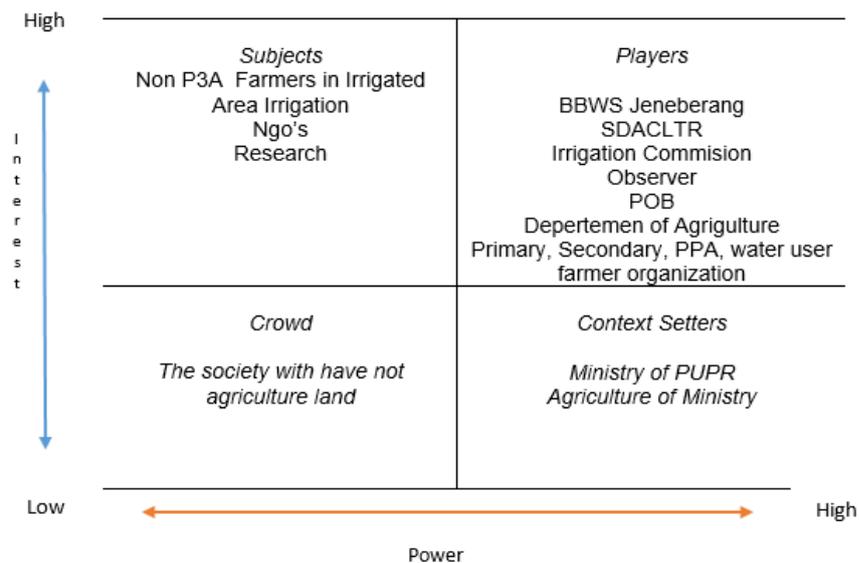
**Figure 1.** Matrix of Stakeholder *Gird*

## 5. Results and Discussion

Mitchell and Wood [11] define stakeholders as groups or individuals who can influence and or be influenced by a particular goal achievement. While Fletcher [12] briefly define stakeholders is a person with an interest or attention to the problem.

These stakeholders have an interest and power in each owned positions of importance and influence of each stakeholder [12, 11, 10]. So that stakeholders can be grouped into three namely primary, secondary and key stakeholders in mapping of Stakeholder of Kampili Irrigation Area. Stakeholders generally have high interest and power over the management of the Kampili Irrigation Area.

This analysis intended to provide an optimal picture of the expected role of each stakeholder in the management of Kampili Irrigation Area. The meaning of interest here is the interest / concern of stakeholders in the management of Kampili Irrigation Area while power is the strength/ability/authority/influence of stakeholders to implement the management of Kampili Irrigation Area. All parties involved in the management of the Irrigation Area are grouped in four quadrants (two-by-two matrix) as in figure 2.



**Figure 2.** Mapping of stakeholders based importance and intelligence

## 6. Subjects

In Kampili irrigation area management, the matrices of interest and power of stakeholders for irrigation distribution management are grouped into high interest - low power. Subjects are the stakeholders who are consists of non P3A farmers, NGOs and researchers. These stakeholders have a high interest but have no influence or authority in regulating the management of water according to their need. Non P3A. farmers or farmers around the channel or irrigation buildings at upstream and downstream but outside the in the irrigation map, have no right to obtain water distribution from irrigation. However, they are in dire need of water for the farm, thus these farmers sabotage in the main irrigation channel to meet their needs. While for NGOs and researchers have an interest in improving the distribution of irrigation but they have no right and authority in the regulation or management of Kampili irrigation area as one of the instrument for agricultural and rural development [13] to make a direct contribution to reducing poverty [14].

## 7. Players

Stakeholders who have high interest and power in the management of Kampili irrigation area.

### 7.1. BBWS Jeneberang, Irrigation Management Unit

Has the most authority and interest in the management of the river, dam, weir, primary and secondary irrigation, having a considerable source of funding BBWS Jeneberang has not been able to produce improved conditions as farmers hope in the operation and maintenance of the Kampili irrigation area. Where in the management of Irrigation Area there is still a lot of damage to irrigation buildings, garbage disposal, illegal buildings operating in the upstream area and no sanctions given so that many farmers' needs are not met well in accordance with the schedule and the amount of water. Likewise, with the operation of the irrigation, where in the distribution of water resources prioritize the PDAM and PLTA so that the supply for irrigation is still lacking.

### 7.2. Irrigation Commission

Is an agency that handles when the dam door is operated for water distribution / order of opening of the weir gate, the determination of planting schedule, but this institution is always slow in the implementation. Often times after planting irrigation water not flowing, so the farmer pumped the water or submitted request to IP3A to coordinate with Primary Interpreter and POB.

### 7.3. POB, Staf and PPA

Have a high interest and important role in the management of Irrigation Area, because they have authority in giving permission in opening of water doors.

#### 7.4. Water User Farmer Organization (P3A, GP3A and IP3A),

Have the authority to coordinate from irrigation to tertiary in terms of distribution of farmer's needs. These stakeholders are working in accordance with their respective responsibility. Some water gates that are sometimes not maintained in accordance with the schedule especially the secondary doors, so that farmers through the foremen open the gates which should not be done.

### 8. Context Setters

The management of the Kampili Irrigation Area which is located under the central shelter because it has a distribution area above 3000 hectares, it is included in context setters is the stakeholders who have a big role in determining the direction and policy of Irrigation management. However, Irrigation management in the Jeneberang River Region is not the only area but many areas in it are in addition to Kampili Irrigation Area Management. Likewise, with the ministry of agriculture that has the authority in providing assistance facilities and infrastructure in irrigation management, especially tertiary areas.

### 9. Crowds

There are many stakeholders do not care about the condition of Kampili irrigation area, let alone to keep and repair, they even contributed in eroded the building, by littering into irrigation channel, making distribution less substandard and damaging the condition of the building. Communities living around the channel consider that irrigation channels are the safest place to dispose of waste because the water flows so that in the downstream area the has tons of garbage which obstructing the distribution of water. This is due to the lack of sacntions enforcement are given to the people who destroy the building despite the fact that the rules and sanctions are written around the irrigation areas

### 10. Conclusion

There are many stakeholders involved in irrigation management. In the arrangement of irrigation distribution there is overlapping of authority of stakeholder, every stakeholder has different interests, and power different from each other. The existence of stakeholders has given positive and negative value, in the management of irrigation water distribution, and then in the stakeholder collaboration there is contestation among the stakeholders.

### Reference

- [1] Fahmid I M 2004 *Gagalnya politik pangan di bawah rezim orde baru: kajian ekonomi politik pangan di Indonesia* (Jakarta: Yayasan Sandi Kota-ISPEI)
- [2] Anonim 2017 Kabupaten Gowa Dalam Angka. <https://gowakab.bps.go.id/> diakses 5 Januari 2018
- [3] Rampisela D A 2016 *Buku Pegangan Pengaturan Air Irigasi Wilayah Irigasi Bili - Bili DAS Jeneberang - Sulawesi Selatan* (Makassar: Universitas Hasanuddin)
- [4] BBWS 2018 Profil Balai Besar Sungai Pompengan Jeneberang
- [5] Rampisela D A, Marunding R and Bulaeng 1999 *Cropping Pattern in Working Area of FWUA Sirannuang Bili - Bili Irrigation System* (Makassar)
- [6] Creswell J W 2013 *Research Design : Qualitative, and mixed Methods Approaches* (California: Sage Publications)
- [7] Creswell J W 2007 *Chapter 3: Designing a Qualitative Study* (California: Sage Publications)
- [8] Crosby B 1991 Stakeholder Analysis : A Vital Tool for Strategic Managers *U.S Agency Int. Dev.* 1–6
- [9] Bryson J M 2004 What to do when stakeholders matter: a guide to stakeholder identification and analysis technique *Public Manag. Rev.* 9–11
- [10] Wilayah S and Citarum S 2010 For Integrated Water Resources Management (IWEM) In The 6 Ci â€™™ S River Basin Territory - Package B ‘Citarum Stakeholders Analysis’
- [11] Mitchell R K and Wood D J 2017 Toward a Theory of Stakeholder Identification and Salience : Defining the Principle of Who and What Really **22** 853–86
- [12] Fletcher A, Guthrie J, Steane P, Roos G and Pike S 2003 Mapping stakeholder perceptions for a third sector organization *J. Intellect. Cap.* **4** 505–27
- [13] Ekasari Z K, Saleh S A M, Jusoff K, Salman D, Akhsan, Kasirang A, Arsyad M, Amrawaty A A, Fudjaja L 2013 Communication pattern and conflict in agricultural extension *Asian Soc. Sci.* **9**

(5) 27-33

- [14] Thalyta E Y, Mustajab M, Arsyad M 2010 Abstracts of doctoral theses on the Indonesian economy, *Bulletin of Indonesian Economic Studies*, 46:2, 251-254, DOI: 10.1080/00074918.2010.486113