# STAKEHOLDER NETWORKING ANALYSIS ON UMBULAN WATER SUPPLY PROJECT: AN EXPLORATORY STUDY COMBINED WITH META-ANALYSIS IDENTIFICATION DESIGN

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#### **ABSTRACT**

The Umbulan Water Supply Project is categorized by the Shipping Infrastructure Acceleration Committee in the list of Accelerated National Strategic Projects through Presidential Regulation Number 3 of 2016 concerning the Acceleration of the Implementation of National Strategic Projects, targeted to operate in mid-2019. This is what will be the focus of the stakeholders of the Umbulan Water Supply Project. This study was to identifying and analyzing networks among stakeholders. Method: This study used a qualitative approach with exploratory methods combined with meta-analysis identification design Identification of stakeholder mapping in the context of early detection of stakeholder involvement in the implementation of the Umbulan Water Supply Project at various levels starting from the National, Provincial (East Java), District/City (Pasuruan, Sidoarjo, Surabaya, to Gresik), Sub-District (Winongan, Gondang Wetan, and Pohtjentrek). The conclusion of this study was based on in-depth interviews and focus group discussions in describing the determination of stakeholders which were divided into two, namely primary stakeholder and secondary stakeholder, and outline the result of the indicators analysis on the stakeholder network of Umbulan Water Supply Project.

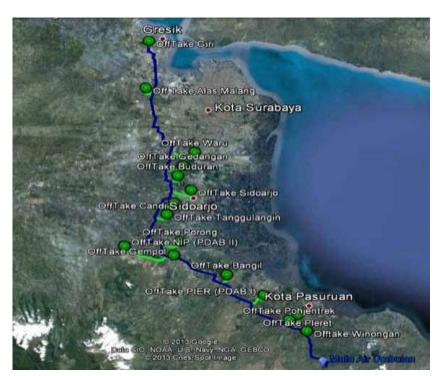
**Keywords:** Stakeholder, Networking, Stakeholder Networking, Umbulan Water Supply Project

#### INTRODUCTION

In this time, the Government and Business Entity succeeded in accelerating one of the National Strategic Projects, namely the Umbulan Water Supply Project. It implemented under the cooperation scheme of the Government and Business Entity with the East Java Provincial Government as the Institution in Charge of the Cooperation Project. The Umbulan Water Supply Project uses raw water sources from the Umbulan Spring and other sources available around It located in Umbulan Village (Winongan District, Pasuruan Regency). The Umbulan catchment area (and surrounding sources) covers six sub-districts in Pasuruan Regency, namely

Winongan, Pasarepan, Puspo, Tutur, Tosari and Lumbang, which in total reach 21,000 Ha. The production of the Umbulan Water Supply Project will be distributed with a transmission system with a  $\pm$  97.6 Km pipeline that will provide drinking water services in five districts/cities, namely Pasuruan Regency, Pasuruan City, Sidoarjo Regency, Surabaya City and Gresik Regency.

Investment in Umbulan Water Supply Project aim to channel bulk water with a production capacity of 4,000 liters of water per second with a network of transmission systems from the fifth Umbulan spring Regional Water Supply Companies in East Java Province, namely each Regional Drinking Water Company in Surabaya (1,000 liters per second), Regional Drinking Water Company Pasuruan Regency (410 liters per second), Regional Drinking Water Company Pasuruan City (110 liters per second), Regional Drinking Water Company Sidoarjo Regency (1,200 liters per second), and Regional Water Supply Company Gresik (1,000 per second). The Umbulan Water Supply Project will operate more than 97.6 km transmission pipeline network through 16 supply points (see Figure 1).



Fugure 1. Transmision Pipeline Mapping of Umbulan Water Supply Project (Source: Documentation of Umbulan Water Supply Project, 2016)

The Umbulan Water Supply Project is categorized by the Shipping Infrastructure Acceleration Committee in the list of Accelerated National Strategic Projects through Presidential Regulation No. 3 of 2016 concerning the Acceleration of the Implementation of National Strategic Projects, targeted to operate in middle of 2019. This is what will be the focus of the stakeholders of the Umbulan Water Supply Project. Because the condition of stakeholders has a big influence on the success of the project. For this reason, stakeholders have a strong network relationship both directly and indirectly, starting from the highest level to the lowest level (Yitmen, 2015). Network analysis among stakeholders that aims to understand relationships between stakeholders, to investigate the factors that influence the conflict and cooperation (Xue, et. al., 2020).

It will allow identification of common ground, or conflicts that occur and potential trade-offs (Zarghami & Dumrak, 2020). This Umbulan Water Supply Project involves stakeholders from various sectors covered in three pillars, namely the government, business entities, and communities from various levels starting from the national, provincial, district/city, sub-district, until to village level. These three pillars are classified into primary stakeholders and secondary stakeholders. This sorting is based on the power and interest of each stakeholder. Primary stakeholders that have significant influence or have an important position on the sustainability of the development activities (Eskerod and Ang, 2017).

Such stakeholders can be classified as funders, project implementers, supervisory and advocacy agencies/institutions, which are government and related business entities, while secondary stakeholders also have certain power and interest in the implementation of the Umbulan Water Supply Project implicitly. The aim of this study is to identify and analyze networks among stakeholders based on mapping indicators, including: understanding scale, information source, position, and relationship pattern indicators that occur in the implementation of the Umbulan Water Supply Project.

#### **LITERATURES**

# Stakeholder: Meaning and Grouping

According to Martin, et. al. (2016) stakeholder are groups of people or individuals who are identified as being able to influence company activities or can be influenced by company activities. Mok, Shen, and Yang (2015) argued that shareholders, workers, suppliers, banks, customers, governments, and communities play an important role in the organization (acting as stakeholders), for which the corporation must take into account all interests and values values from the stakeholders. These stakeholders are often identified by Dobrzyński, Dziekoński & Jurczuk (2015), namely in terms of the strength and relative importance of stakeholders on issues in terms of their important position and influence.

According to Dadpour, Shakeri & Nazari (2018) stakeholders are divided into 3 groups, among others: 1.) Primary stakeholders, are stakeholders who are directly affected by both positive and negative impacts of a plan and have a direct relationship with these activities where these stakeholders have influences and interests are said to be primary stakeholders and must be fully involved in the stages of activities; 2.) Key stakeholders, are those who have legal authority in terms of decision making and who are responsible for project implementation; 3.) Secondary or supporting stakeholders, are stakeholders who do not have a direct interest in a plan but have a great concern for the development process and become facilitators in the process of developing an activity and influencing decision making. supporting stakeholders include investors or private parties, non-governmental organizations, and researchers.

The first step in analyzing stakeholders is setting influences and interests (Hein, *et. al.*, 2017), namely: 1.) Subjects (high level of importance but have a low influence); 2.) Key Players (high level of importance and influence); 3.) Crowd (low level of importance and influence); 4.) Contest setters (low level of importance but have a high influence). According to Kilonzi, *et. al.* (2017) stakeholders in development programs are classified based on their roles, including: 1.) Policy creators (decision makers and determinants of policies; 2.) Coordinators (coordinating other stakeholders involved); 3.) Facilitator (facilitating and fulfilling what is needed by the target group); 4.) Implementers (implementing policies which include target groups); 5.) Accelerators (accelerating and contributing so that a program can walking on target or even faster when it reaches).

#### **Scale of Understanding: Measurement Indicators**

According to Hauck, Schmidt & Werner (2016) that the scale of understanding on stakeholder is a measure related to the knowledge of informants related to the project where the indicators of understanding include location, water discharge, project budget, management, project utilization, and those who use the project. Indicators on the comprehension scale have a scale value of 1-5 and the analysis interval value is the cumulative total average of the results of the assessment of the indicator.

#### **Sources of Information: Essence and Various**

Information can be an important function in helping reduce anxiety for someone. According to Aaltonen and Kujala (2016) that more and more have information can influence or increase knowledge of someone and with this knowledge can lead to awareness that eventually someone will behave in accordance with the knowledge they have. Information can be said as knowledge gained from learning, experience, or instruction (Muchangos, Tokai & Hanashima, 2017). This term has many meanings depending on the context, and in general is closely related to concepts such as meaning, knowledge, perception, truth, representation, stimulus, communication, and mental stimulation (Slabá, 2016). The source of information is data.

The data is in the form of fact facts that describe events and real unity then the data processed through a method to produce information, then the recipient receives the information, makes a decision and takes action (Nguyen, London & Zhang, 2020). The data will be captured as input, reprocessed through a model and so on forming a stakeholder information cycle adopted from (Dadpour, Shakeri & Nazari (2018). Information about the project has been in the spotlight, viral even the information center by all groups of various information media (Lim and Ncube, 2015). According to Yudha & Tjahjono (2019) that there are several media used in the delivery of information including television, radio, newspapers, the internet, and direct socialization to relevant stakeholders.

# **Position: Definition and Types**

Position is an indication of the location and position of a person in attitudes, behaviors, groups, and so forth in a social space (Hein, *et. al.*, 2017). Whereas according to Muchangos, Tokai & Hanashima (2017) that social space is a place of a person in general in his community with respect to other people, in the sense of his social environment, prestige, and rights and obligations. Wojewnik-Filipkowska, *et. al.* (2019) stated that the community generally develops two types of positions, namely as follows: 1.) Ascribed position, namely the position of a person in society without regard to spiritual differences and abilities where this position is obtained by birth, giving, and trust; 2.) Achieved position, which is the position reached by someone with deliberate efforts where this position is open to anyone, depending on their respective abilities in pursuing and achieving their goals and giving feedback on everything that happen.

In this research, the intended position is an achieved position, where stakeholders are given opportunities as indicators of stakeholder evaluation to provide an opinion, attitude, communication pattern (delivery method and way of speaking) until the commitment of the project to the existence and implementation of Wojewnik-Filipkowska, *et. al.* (2019), if there are at least 3 types of positive indicator evaluations, then the results of stakeholder position analysis are said to be pro, but if there are at least 2 kinds of positive indicator assessments, the results of stakeholder position analysis are said to be neutral. If there is only one type or there

is no positive indicator at all, then the results of stakeholder position analysis are said to be contra. There are 3 types of positions determined, namely pro, neutral, and contra.

## **Networking: Relation and Level**

Relations between organizations and collaboration in managing an activity are important (Chung and Crawford, 2016). Project implementation certainly cannot be carried out if the stakeholders involved do not have the ability to implement and develop it (Nguyen, London & Zhang, 2020). With the many interests of the stakeholders involved, strong collaboration between these stakeholders is needed (Slabá, 2016). Measurement of stakeholder capacity in developing networks of cooperation in project implementation can be a baseline for the success of ongoing projects (Xue, *et. al.*, 2020). This collaborative networking capacity includes the capacity to identify resources, run project programs, and also manage them and become useful resources (Yudha & Tjahjono, 2019).

The objective of this network analysis is to determine key stakeholders involved in project implementation, measure stakeholder network capacity through the domain of collaborative network development, and analyze the capacity supporting factors needed and need to be developed to support project implementation (Zarghami & Dumrak, 2020). Establishment of networks based on formal and non-formal local alliances from the executive and legislative institutions of various elements and levels, local profit and non-profit business entities at various levels, social and independent organizations and other institutional structures (Martin, *et. al.*, 2016).

The development of stakeholder networking consists of elements regarding the potential of human resources owned, communication skills, and experience of members in the organization and knowledge in order to analyze the network of stakeholders could be considered capable of identifying stakeholder resources that are owned and needed at the individual level, groups, to networks at various levels ranging from local, regional to national (Slabá, 2016). Xue, et. al. (2020) added that the indicators used in stakeholder networks are in various elements / institutions and also levels, including: interaction, collaboration and affiliation. The institutional network elements of stakeholder networks in this study which are the boundaries of the analysis of stakeholder network research are also divided into several types, including: executive, legislative, business entities (national, regional, private sectors), community organizations, community leaders, and youth leaders.

#### **METHODS**

This study uses a qualitative approach with exploratory methods combined with meta-analysis identification design. Exploratory research are studies that depart from a number of rationales and clues to identify problems that include a number of events that revolve around decisions, programs, implementation processes, and changes in management. Exploratory is research method that seeks to explore the causes or things that affect the occurrence of things and explore new knowledge to find out a problem (Neuman, 2017). Lim and Ncube (2015) stated that meta-analysis identification design is a method for clustering and identifiying the infomant as a stakeholder in the Umbulan Water Supply Project by networking and knowledge. The technique of determining the informants used was purposive sampling with consideration of initial observations based on the high level of concern and stakeholder attention to the Umbulan Water Supply Project.

#### RESULTS AND DISCUSSION

The results of this study are based on independent interviews and focus group discussions and then describe the determination of stakeholders which are divided into two, namely primary stakeholders and secondary stakeholders, and describe the results of indicator analysis on stakeholder networks of the Umbulan Water Supply Project, namely: 1.) Scale of Understanding; 2.) Sources of Information; 3.) Position; 4.) Networking. Where the results of the analysis on each indicator are made a stakeholder networking model.

## **Stakeholder: Mapping Identification and Analysis**

Identification of stakeholder mapping in the context of early detection of stakeholder involvement in the implementation of the Umbulan Water Supply Project at various levels starting from the national, provincial (East Java), district/city level (Pasuruan, Sidoarjo, Surabaya, to Gresik), sub-district level (Winongan, Gondang Wetan, and Pohtjentrek), up to the village level (the village affected by project development). This is one of the new breakthroughs to improve the accuracy of handling polemic support in the regions as a result of project implementation. This study has 2 (two) important stages, namely: 1.) Selection of representative indicators to detect the level of vulnerability in support and polemics; 2.) Compile stakeholder mapping analysis that can be used to carry out stakeholder engagement plan. Following Table 1 below are stakeholder data from various levels and various groups that have been carried out indepth interviews by researchers, including the following:

Table 1. Informant Characteristic Identification

Code	Type of Institution	Level Area
LM	Executive	National
UN	Executive	Province
SB	Executive	District
DU	Executive	Sub-District
SD	Executive	Sub-District
SO	Executive	Village
MA	Executive	Village
AM	Executive	Village
SL	Executive	Village
SJ	Executive	Village
IM	Executive	Village
TG	Executive	Village
AS	Executive	Village
SY	Executive	Village
AJ	Executive	Village
TT	Executive	Village
HS	Executive	Village
SU	Executive	Village
MS	Executive	Village
AG	Executive	Village
RM	Executive	Village
LL	Service	Province
TO	Service	Province
HR	Service	Province
EN	Service	Province
DB	Service	District
JS	Service	District
RH	Service	District
SG	State-Owned Enterprises	Province

Code	Type of Institution	Level Area
DD	State-Owned Enterprises	Province
JO	Regional-Owned Enterprises	Province
MU	Regional-Owned Enterprises	City
HA	Regional-Owned Enterprises	District
RB	Regional-Owned Enterprises	Village
AB	Regional-Owned Enterprises	District
RC	Regional-Owned Enterprises	District
SN	Private Corporation	District
ED	Private Corporation	District
AW	Community Organization	Village
SI	Community Organization	Village
RD	Community Organization	Village
MF	Independent	District
TH	Independent	Village
SD	Inedpendent	Village
TR	Community Organization	District
PT	NGO	National
SF	Legislative	District
AR	Business Entity	Nastonal

(Source : Primary Data, 2017)

Based on Table 1 related to the availability of stakeholder data that has been obtained through in-depth interviews and focus group discussions, indicators have been formulated to map the analysis of stakeholder involvement at various levels based on scale of understanding, sources of information, position, and stakeholder networking. Since the stakeholder community, their social interactions and issues are changing in response to project environment, the whole process of the model require continuous recording, monitoring and updating; as well as continuous communication and consultations with the stakeholders involved.

The stakeholder mapping component referred to here includes external elements, both individuals and organizations, as well as internal elements of the organization, in the form of individuals or structures within the organization, which may be affected or have an interest in the Umbulan Water Supply Project. This includes elected community representatives, government authorities and other public bodies, traditional entities, affected people and their representatives, local communities, commercial enterprises, non-governmental organizations (NGOs) representing concerns in the area of environmental issues, social, employment, commercial and other interests, the academic and research community, social organizations, international agencies, representatives of civil society or community-based organizations (CBOs), and organizational management, whether from staff, employees, operational personnel or others.

Specifically, this stakeholder mapping has the following objectives: 1.) Building and providing an understanding of previous stakeholder engagement activities that have been carried out in the project area; 2.) Identifying and analyzing stakeholders, issues, and problems that are the focus of their attention, their perceptions and actions towards the Umbulan Water Supply Project, and their interest motives for being involved; 3.) Clarify the strategy for corporate engagement with stakeholders with detailed goals and objectives; 4.) Providing a stakeholder engagement plan for current and future organizational needs. Figure 2 focused about conceptual network-theory based model for stakeholder analysis:

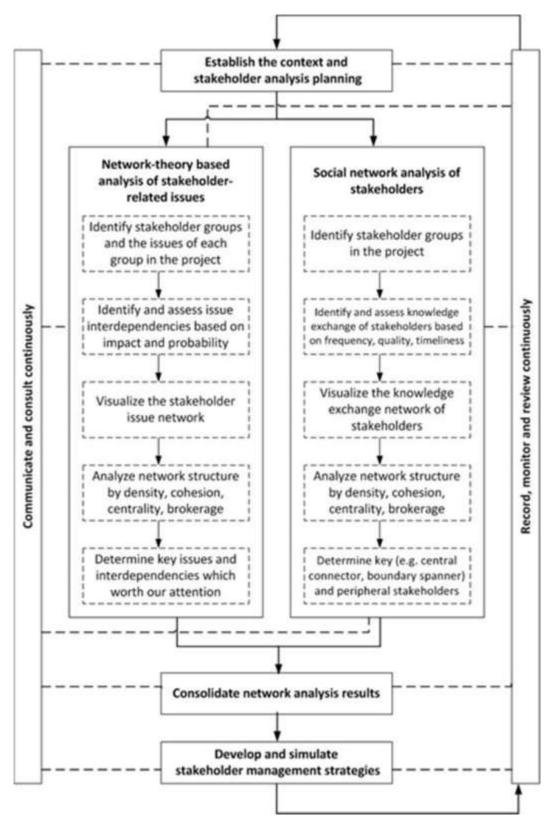


Figure 2. The Conceptual Network-Theory Based Model for Stakeholder Analysis in Major Construction Project

(Source: Mok & Shen, 2016)

# **Indicator Analysis of Understanding Scale Toward Project**

Based on the results of the analysis of the study through independent interview and focus group discussion from the informants identified from various levels, the data obtained from the scale of understanding indicators in Table 2 are as follows:

**Table 2. Indicator Analysis of Understanding Scale** 

	Table 2. Indicator Analysis of Understanding Scale												
	Tumos of		Indicator	Analysis									
Code	Types of Stakeholder	Project	User / Organizer	Use / Utilization	Impact	Issues / Polemic	Solution	Interval Value	Information				
LM	Primary	5	4	4	5	4	3	4,16	Know				
UN	Primary	5	4	4	5	4	3	4,16	Know				
SB	Primary	5	4	4	5	5	5	4,66	Very Know				
DU	Secondary	5	5	5	5	5	5	5	Very Know				
SD	Secondary	5	5	5	5	5	5	5	Very Know				
SO	Secondary	5	5	5	5	5	5	5	Very Know				
MA	Secondary	5	5	5	5	5	5	5	Very Know				
AM	Secondary	5	5	5	5	5	5	5	Very Know				
SL	Secondary	5	5	5	5	5	5	5	Very Know				
SJ	Secondary	5	5	5	5	5	5	5	Very Know				
IM	Secondary	5	5	5	5	5	5	5	Very Know				
TG	Secondary	5	5	5	5	5	5	5	Very Know				
AS	Secondary	5	5	5	5	5	5	5	Very Know				
SY	Secondary	5	5	5	5	5	5	5	Very Know				
AJ	Secondary	5	5	5	5	5	5	5	Very Know				
TT	Secondary	5	5	5	5	5	5	5	Very Know				
HS	Secondary	5	5	5	5	5	5	5	Very Know				
SU	Secondary	5	5	5	5	5	5	5	Very Know				
MS	Secondary	5	5	5	5	5	5	5	Very Know				
AG	Secondary	5	5	5	5	5	5	5	Very Know				
RM	Secondary	5	5	5	5	5	5	5	Very Know				
LL	Primary	5	5	5	5	5	5	5	Very Know				
TO	Primary	5	5	5	5	5	5	5	Very Know				
HR	Primary	5	5	5	5	5	5	5	Very Know				
EN	Secondary	5	5	5	5	4	4	4,66	Very Know				
DB	Secondary	5	4	4	4	5	4	4,33	Very Know				
JS	Secondary	5	5	5	5	5	3	4,66	Very Know				
RH	Secondary	5	5	5	5	5	5	5	Very Know				
SG	Secondary	5	5	5	5	5	5	5	Very Know				
DD	Secondary	1	1	1	1	1	1	1	Don't Know At All				
JO	Primary	5	5	5	5	5	5	5	Very Know				
MU	Primary	5	5	5	5	5	5	5	Very Know				
HA	Primary	5	5	5					Very Know				
RB	Primary	5	5	5	5	5 5	5 5	5	Very Know				
AB	Primary	5	5	5	5	5	5	5	Very Know				
RC	Primary	5	5	5	5	5	5	5	Very Know				
SN	Secondary	5	4	4	2	3	1	3,16	Know Enough				
ED	Secondary	5	4	4	2	3	1	3,16	Know Enough				
AW	Secondary	5	5	5	5	5	3	4,66	Very Know				
SI	Secondary	5	5	5	5	5	3	4,66	Very Know				
RD	Secondary	5	5	5	3	3	3	4,66	Very Know				
MF	Secondary	5	5	5	5	5	3	4,66	Very Know				
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Code	Types of		Indicator	Analysis					
	Stakeholder	Project	User / Organizer	Use / Utilization	Impact	Issues / Polemic	Solution	Interval Value	Information
TH	Secondary	5	5	5	5	5	3	4,66	Very Know
SD	Secondary	5	5	5	5	5	3	4,66	Very Know
TR	Secondary	5	5	5	5	5	4	4,66	Very Know
PT	Secondary	5	5	5	5	5	5	5	Very Know
SF	Secondary	5	5	5	5	5	5	5	Very Know
AR	Primary	5	5	5	5	5	5	5	Very Know

(Source: Primary Data, 2017)

Based on the results of the analysis on Table 2, It can be concluded that the primary stakeholder type which is also a key stakeholder has a very high analysis interval scale value which has a value of 5, which means that the stakeholder knows about the project because the primary stakeholder is a member of the Umbulan Water Supply Project node team. The type of secondary stakeholders has a high enough interval analysis scale value that has values ranging from 1-5, which means that there are stakeholders who are not known at all until they are very knowledgeable about the project because the Head of Indonesia Railway Company of Operational Area 8 Surabaya only served a few months so that it did not know the project at all and secondary stakeholders who were very knowledgeable about the project because he obtained significant data information, while the neutral stakeholder type had a very low analysis interval scale value of 3.16 which meant stakeholders it is quite enough to know about the Umbulan Water Supply Project.

#### **Indicator Analysis of Information Sources About Project**

With the interval formula analysis and identification of the answers of the informants through indepth interview and focus group discussion in this study then it can be compiled an analysis of the indicators of the intensity of stakeholder information on the Umbulan Water Supply Project presented in Table 3 below:

**Table 3. Indicator Analysis of Information Sources** 

Intensity Scales of Information Sources Intensity													
	Tr. e		Intensity	y Scales of	T	Intensity							
COUG	Types of		T	I	Intensity	Category				Information			
Couc	Stakeholder	TV	Radio	News- paper	Internet	Socialization	Scale Value	A	В	C	D	imoi mation	
LM	Primary	6	0	5	5	6	4,4					Often	
UN	Primary	5	0	5	5	6	4,2					Often	
SB	Primary	6	0	6	6	6	4,8					Often	
DU	Secondary	5	0	5	5	6	4,2					Often	
SD	Secondary	5	0	5	5	6	4,2					Often	
SO	Secondary	5	0	5	5	6	4,2					Often	
MA	Secondary	5	0	5	5	6	4,2					Often	
AM	Secondary	5	0	5	5	6	4,2					Often	
SL	Secondary	5	0	5	5	6	4,2					Often	
SJ	Secondary	5	0	5	5	6	4,2					Often	
IM	Secondary	5	0	5	5	6	4,2					Often	
TG	Secondary	5	0	5	5	6	4,2					Often	
AS	Secondary	5	0	5	5	6	4,2					Often	
SY	Secondary	5	0	5	5	6	4,2					Often	
AJ	Secondary	5	0	5	5	6	4,2					Often	
TT	Secondary	5	0	5	5	6	4,2					Often	
HS	Secondary	5	0	5	5	6	4,2					Often	

Code	Types of		Intensity	Scales of	Informatio	n Sources	Intensity		Inte	•		- Information	
Code	Stakeholder	TV	Radio	News- paper	Internet	Socialization	Scale Value	A	В	С	D	Imormation	
SU	Secondary	5	0	5	5	6	4,2					Often	
MS	Secondary	5	0	5	5	6	4,2					Often	
AG	Secondary	5	0	5	5	6	4,2					Often	
RM	Secondary	5	0	5	5	6	4,2					Often	
LL	Primary	6	0	6	6	6	4,8					Often	
TO	Primary	6	0	6	6	6	4,8					Often	
HR	Primary	6	0	6	6	6	4,8					Often	
EN	Secondary	6	0	5	6	6	4,6					Often	
DB	Secondary	5	0	3	3	4	3,0					Ever	
JS	Secondary	5	0	5	5	5	4,0					Often	
RH	Secondary	5	0	4	4	5	3,6					Ever	
SG	Secondary	6	0	6	6	6	4,8					Often	
DD	Secondary	0	0	0	0	0	0,0					Never	
JO	Primary	6	0	6	6	6	4,8					Often	
MU	Primary	6	0	6	6	6	4,8					Often	
HA	Primary	6	0	6	6	6	4,8					Often	
RB	Primary	6	0	6	6	6	4,8					Often	
AB	Primary	6	0	6	6	6	4,8					Often	
RC	Primary	6	0	6	6	6	4,8					Often	
SN	Secondary	1	0	1	1	0	0,6					Never	
ED	Secondary	1	0	1	1	0	0,6					Never	
AW	Secondary	5	0	4	2	6	3,4					Ever	
SI	Secondary	5	0	4	2	6	3,4					Ever	
RD	Secondary	5	0	4	5	6	4,0					Often	
MF	Secondary	5	0	5	5	6	4,2					Often	
TH	Secondary	5	0	3	0	6	2,8					Ever	
SD	Secondary	5	0	3	0	6	2,8					Ever	
TR	Secondary	5	0	3	0	6	2,8					Ever	
PT	Secondary	6	0	6	6	6	4,8					Often	
SF	Secondary	6	0	6	6	6	4,8					Often	
AR	Primary	6	0	6	6	6	4,8					Often	

(Source: Primary Data, 2017)

From the results of the analysis on Table 3 related to the intensity of stakeholder information sources on the project that neutral stakeholders belong to stakeholders who have never received information directly from various media but in their descriptions they still get little information from television, newspapers and the internet, but do not get a kind of socialization, even wrong one definitive stakeholder from Director of Indonesia Railway Company Operational Area 8 - Surabaya (DD-informant) is classified as a stakeholder who has never known anything about the Umbulan Water Supply Project because these stakeholders have only carried out their functions and duties as Director for one month. Primary stakeholders and other definitive stakeholders are often stakeholders and have received information about the Umbulan Water Supply Project from various of media.

# **Indicator Analysis of Positioning Into Project**

Based on the results of the analysis of the research through independent interviews and focus group discussions from the informants identified from various levels, data analysis of stakeholder position indicators was obtained. Table 4 below is the result of analysis related to stakeholder position indicators on the Umbulan Water Supply Project:

**Table 4. Indicator Analysis of Positioning** 

Table 4. Indicator Analysis of Positioning  Types of Positioning Indicators Positioning Analysis												
Code		A 44.4 - J -			C							
7.3.4	Stakeholder	Attitude	Opinion	Communication	Commitment	Pro	Neutral	Contra				
LM	Primary	+	+	+	+	√ √						
UN	Primary	+	+ *	+	+	√*						
SB	Primary	+	*	+	+	√ * √ *						
DU	Secondary	+		+	+	√ * √ *						
SD	Secondary	+	*	+	+	√ * √ *						
SO	Secondary	+	*	+	+	'						
MA	Secondary	+	*	+	+	√*						
AM	Secondary	+	*	+	+	√*						
SL	Secondary	+	*	+	+	√*						
SJ	Secondary	+	*	+	+	√*						
IM	Secondary	+	*	+	+	√*						
TG	Secondary	+	*	+	+	√*						
AS	Secondary	+	*	+	+	√ *						
SY	Secondary	+	*	+	+	√ *						
AJ	Secondary	+	*	+	+	√*						
TT	Secondary	+	*	+	+	√ *						
HS	Secondary	+	*	+	+	√ *						
SU	Secondary	+	*	+	+	√ *						
MS	Secondary	+	*	+	+	√ *						
AG	Secondary	+	*	+	+	√*						
RM	Secondary	+	*	+	+	√ *						
LL	Primary	+	+	+	+	V						
TO	Primary	+	+	+	+	V						
HR	Primary	+	+	+	+	V						
EN	Secondary	+	+	+	+	V						
DB	Secondary	+	+	+	+	V						
JS	Secondary	+	+	+	+	V						
RH	Secondary	+	+	+	+	V						
SG	Secondary	+	+	+	+	V						
DD	Secondary	+	+	+	+	V						
JO	Primary	+	+	+	+	V						
MU	Primary	+	+	+	+	V						
HA	Primary	+	+	+	+	V						
RB	Primary	+	+	+	+	1						
AB	Primary	+	+	+	+	√ √						
RC	Primary	+	+	+	+	V						
SN	Secondary	+	+	+	+	√ √						
ED	Secondary	+	+	+	+	1						
AW		+	*		+	√*						
SI	Secondary		*	+		√*						
	Secondary	+	*	+	+	√* √*						
RD	Secondary	+	*	+	+	√* √*						
MF	Secondary	+	*	+	+	√ * √ *						
TH	Secondary	+	*	+	+	√ * √ *						
SD	Secondary	+		+	+							
TR	Secondary	+	*	+	+	√ *						
PT	Secondary	+	+	+	+	√ /						
SF	Secondary	+	*	+	+	√* 						
AR	Primary	+	+	+	+							

(Source : Primary Data, 2017)

```
Information symbol on the table :

+ = Agree

* = Agree to Recommendations/Suggestions/Expectations

x = Disagree

√ = Position Consistency

√* = Position to Recommendations/Suggestions/Expectations
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Based on the findings result on Table 4 that there are many stakeholders who agree but with a note of recommendations, suggestions, suggestions, and expectations, namely The Regional Representative Council of Pasuruan District, Head of Sub-districts, Head of Villages, Independent, Community Organizations, Community Leaders, Figures, Youth Figures, and others, as for notes in the form of recommendations, proposals, suggestions and expectations, including: 1.) Water requirements for residents around Umbulan or surrounding villages that utilize Umbulan water are fulfilled; 2.) Provide compensation for residents whose places are affected by the implementation of the Umbulan Water Supply Project; 3.) Giving an appeal not to interfere with the activities of residents who do work in the morning to evening (if possible project activities are carried out at night); 4.) Recommend the project workforce to come from villagers affected by the project; 5.) Recommending project infrastructure materials to be supplied from local entrepreneurs.

# Stakeholder Networking Analysis on the Umbulan Water Supply Project: Indicator Analysis and Stakeholder Networking Model

Based on the results of the analysis of the research through independent interviews and focus group discussions from the informants identified from various levels, it was obtained data analysis of stakeholder network indicators. In Table 5 the following is a table of analysis of stakeholder network indicators on the Umbulan Water Supply Project of various levels:

**Table 5. Indicator Analysis of Stakeholder Networking** 

				tworking Indicate			Elements of	of Institution	nal Networks	
Code	Institution	Level	Interaction	Collaboration	Affiliation	Executive	Legislative	Business Entity	Community Organization	Figure
LM	Staff of Finance Ministry	National		$\sqrt{}$	$\checkmark$	X	X	$\sqrt{}$	X	X
UN	Staff National Land Agency of East Java Province	Province		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$	X	X
SB	Regent of Gresik	District		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	X	$\sqrt{}$	X	X
AG	Head of Pleret Village	Village	$\sqrt{}$	X	$\sqrt{}$	X		$\sqrt{}$	X	X
LL	Head Office of Investment and One Stop Licensing Service (Chairperson of Government- Cooperation Team of Umbulan Water Supply Project)	Province	V	V	V	√	X	V	х	X
TO	Head Office of Forestry East Java Province	Province	V	√		√	X		X	X
HR	Staff Office of Settlement, Public Housing, and Creation	Province	V	V	$\sqrt{}$	$\sqrt{}$	X	V	X	X
EN	Staff Office of Culture and Tourism East Java Province	Province	X	X	X	X	X	Х	X	X
DB	Staff Office of Agriculture Pasuruan Sub-District	District	X	X	X	X	X	Х	X	X
JS	Staff Technical Service Unit for the Development of Umbulan Freshwater Cultivation	District	X	X	X	X	X	Х	X	X
RM	Chief of the Forest Police Resort	District	X	X	X	X	X	Х	Х	X
SG	Head of the Indonesia State Forest Company, East Java Regional Divison	Province	V	V	V	V	X	V	Х	X
DD	Director of Indonesia Railway Company Operational Area 8, Surabaya	Province	X	X	X	X	X	Х	X	X
JO	Director of Clean Water Regional Company	Province	V		$\sqrt{}$	V	X	$\sqrt{}$	X	X
SN	Director of Tirta Investama Corporation	District	X	X	X	X	X	Х	X	X
ED	Marketing Director of Santri Sidogiri Corporation	District	Х	X	Х	Х	X	X	х	X
AR	Technical Director of Meta Adhya Tirta Umbulan Corporation	National	V	V	V	V	V	V	V	V

(Source: Primary Data, 2017)

Based on the Table 5 about stakeholder network analysis indicators above, it can be concluded that primary stakeholders who have many networks with other stakeholders from various levels are the Head of Investment and One Stop Licensing Service of East Java Province, the National Land Agency of East Java Province, the Technical Director of Meta Adhya Tirta Umbulan Corporation, and Director of Clean Water Regional Company in East Java Province. While secondary stakeholders who have many networks are the Head of Pleret Village. However, secondary stakeholders who do not have networks include: Staff Office of Agriculture in Pasuruan Sub-District, Technical Service Unit for the Development of Umbulan Freshwater Cultivation, Chief of the Forest Police Resort, Director of Indonesia Railway Company Operational Area 8, Surabaya, Director of Tirta Investama Corporation, Marketing Director of Santri Sidogiri Corporation, and Staff Office of Culture and Tourism East Java Province. The following figure 3 below is a stakeholder network model of the Umbulan Water Supply Project based on indicators that have been identified and analyzed:

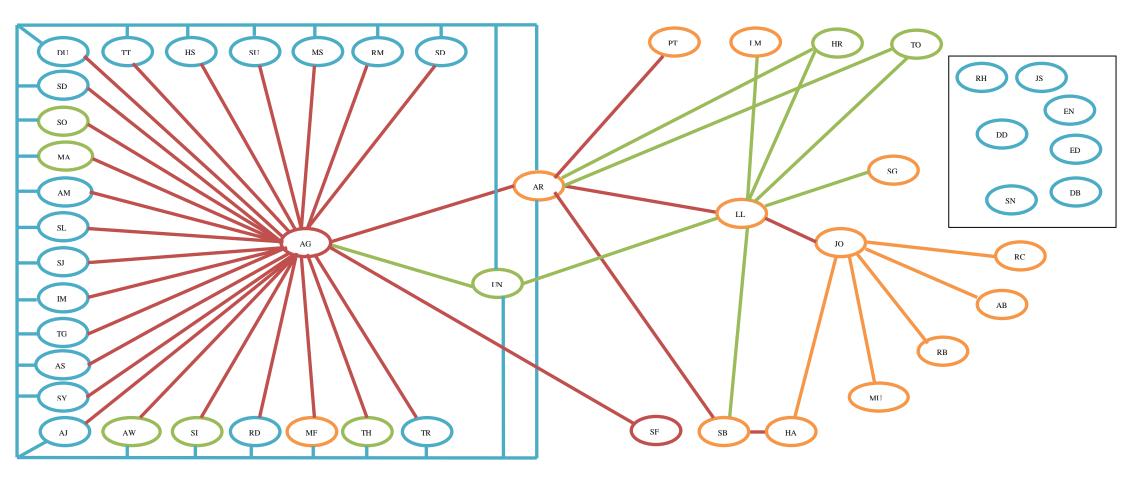


Figure 3. Stakeholder Networking Analysis (Source: Primary Data, 2017)

Information : — — = Network intensity and level normally = Network intensity and level related to work and function principally = Network intensity and level based on purpose specifically Cooperation and relationship

#### **CONCLUSION**

Based on the stakeholder networking analysis, It can be concluded that primary stakeholders who have many networks with other stakeholders from various levels are: 1.) Head Office of Investment and One Stop Licensing Service of East Java Province; 2.) National Land Agency of East Java Province; 3.) Meta Adhya Tirta Umbulan Corporation; 4.) Director of Clean Water Regional Company in East Java Province. While secondary stakeholders who have many networks are the Head of Pleret Village. However, secondary stakeholders who do not have a network include: 1.) Staff Office of Agriculture Pasuruan Sub-District; 2.) Staff Technical Service Unit for the Development of Umbulan Freshwater Cultivation; 3.) Chief of the Forest Police Resort; 4.) Director of Indonesia Railway Company Operational Area 8, Surabaya; 5.) Director of Tirta Investama Corporation; 6.) Marketing Director of Santri Sidogiri Corporation; 7.) Staff Office of Culture and Tourism East Java Province.

The results of this study also concluded that networking among stakeholders in responding to common goals, management and implementation of projects has a framework that leads clearly to goals that are in line with the principles and objectives of the project itself by forming bonds through interaction between stakeholders in the network and with parties outside the network. Stakeholders who already have network development capacity have roles that have been taken by network members, and are able to know the benefits obtained by themselves and other members for project management benefits which then form a stakeholder network model based on the results of analysis of indicators on stakeholder networks of Umbulan Water Supply Project, among others: 1.) Scale of Understanding; 2.) Sources of Information; 3.) Position; 4.) Stakeholder Networking.

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