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Mapping of Poverty Characteristics, based on the quality of Fisherman's House, Bajo Tribe, South Halmahera, Indonesia

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Mapping of Poverty Characteristics, based on the quality of Fisherman's House, Bajo Tribe, South Halmahera, Indonesia

Rosmini Maru, Ramli Umar, Syukri Nyompa, Takdir Ismail, Amal Arfan, Sulaiman Zhiddiq, and Uca Sideng

Department of Geografi, Faculty of Mathematic and Natural Science, Universitas Negeri Makassar, 90222, Indonesia

rosminimaru@unm.ac.id

Abstract The problem of poverty is one of the national and international problems that require serious attention. This study aims to describe the characteristics of poverty, especially the Bajo Tribal fisherman's residence and mapping the characteristics of poverty of the Bajo fisherman residence of South Halmahera Regency. This research is survey research, with proportional random sampling technique. The results showed that there is influence of fisherman's income on their house condition. In addition, it was found that the poverty characteristics of the Bajo Tribe's fisherman residence consisted of two categories, namely: semi-permanent house building quality as much as 54,83% and emergency as much as 32,25%. The results of this paper is expected to be an input in determining the policy, especially in addressing the problem of handling poverty, especially in managing housing or residence of the poor.

1. Introduction

Indonesia as an archipelagic country, has a vast coastal area, [1,2], inhabited by two million fishermen and farmers and an estimated 60% of fishermen in the village and the average income is still in under its minimal needs.[3] Even the National Committee of Indonesian Fishermen Organization (KPNNI) in 2009 stated that about 90% of Indonesian fishermen live in poverty.[4]

[5] Defines poverty as the inability of individuals to meet minimum basic needs for decent food and non-food life. The poverty line set by the Central Bureau of Statistics is the amount of expenditure needed by individuals to meet food needs equivalent to 2,100 calories per person per day and non-food needs consisting of housing, clothing, healthcare, education, transportation and various other goods and services. Meanwhile, the National Planning and Development Agency [6] defines poverty as a condition in which a person or group of people, men and women, does not fulfill their basic rights to maintain and develop a dignified life.

Although fishermen take a very significant role in enhancing the productivity of national fisheries,[7] it does not correlate to the improvement of their welfare. The presence of development intervention programs, especially for coastal communities. The existence of the Ministry of Maritime Affairs and Fisheries (DKP) is one manifestation of recognition of poverty among the fishermen community.[8] It also occurs in various parts of the world such as Sub-Saharan African (SSA) countries.[9] The situation is exacerbated by the impacts of climate change.[10]. The climate changes unpredictability especially in the era of global warming [22,23], which need stochastic approach [24].

Poverty of fishermen will grow, [11] if fisheries development policy is not impartial to fishermen. [12] revealsthat poverty is a level of living that is below the minimum standard of living. The minimum standard of living is determined on the basis of basic food needs that make people work and live healthy based on the needs of rice and nutritional needs.

In Indonesia, there are several ethnic groups that still apply the pattern of maritime culture in every joint of his life. One of the most famous tribes, as a supporter of the maritime culture of the Tribe Bajo (Bajau). Bajo tribe is found in Makassar Strait, Bone Bay, East Nusa Tenggara, Banggai, Tomini, Maluku, North Maluku and Sulawesi Sea [13].

South Halmahera Regency is a group of islands, many of which are occupied by the Bajo Tribe. The Bajo tribe in this area reaches a population of 21.9836.00 people [14]. According to [15] the people residing in the marine sector and living as fishermen are poor. Various factors causing poverty in this region include the amount of income, level of education, skills, and the existence of natural resources. All of this, of course will be seen clearly in their daily life like the state of their home or residence. Therefore, in this article will describe the state of fishing communities of the Bajo Tribe, South Halmahera

2. Method

The research was conducted for two months in four sub-districts, namely: South Kayoa District, Joronga Islands Subdistrict, and South West Gane Subdistrict in South Halmahera Regency each taken by one of the villages as the representative territory of the Bajo fishing community (Figure.1). The samples in this study were 93 heads of families who took by proportional random sampling technique.Furthermore, the house quality analysis using scoring techniques as in Table 1. Based on Table 1, then made the classification of house quality as listed in Table 2.
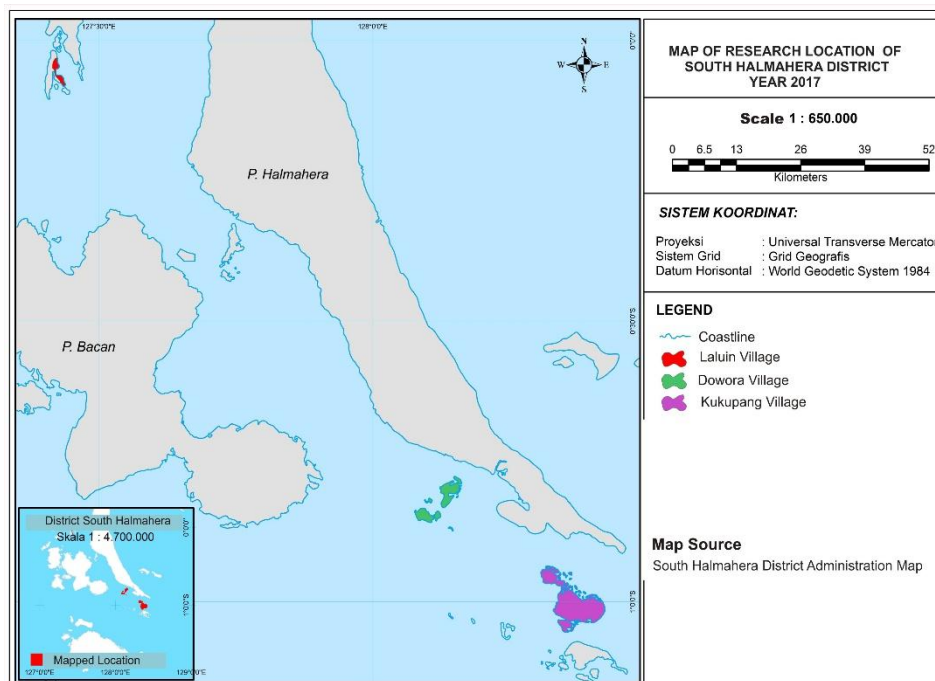

Figure 1. Map of Research Locations

Table 1. House Quality Indicators and Weights

Floor area		**Floor Type**		**Wall Types**	
area	Score	Material	Score	Bahan	Score
< 8 m^2	1	Land	1	Bamboo	1
> 8 m^2	2	Wood	2	Triplex	2
		Cement	3	Zinc	3
		Ceramics	4	Wood	4
				Wall without Plaster	5
				Plastered Wall	6

Source: [5]

Table 2. Home Quality Category

Criteria (Number Weight)	Criteria
10 – 12	Permanent
7 – 9	Semi Permanent
3 – 6	Emergencyt

Source: [5]

3. Results and Discussion

The quality of the house is measured by taking into account the floor area of the building, the type of floor of the building, as well as the type of residential wall. Then each area and building materials will be given weight for the determination of criteria consisting of three categories, namely permanent quality, semi-permanent quality, and emergency quality. Criteria where a household is said to be poor if the quality of the house is still classified in the quality of emergency and semi-permanent.The characteristics of poverty based on the quality of the fisherman's house in each region are in Table 3 and Fig. 2.

Based on Table 3 and Fig.2 it is found that the number of households, which have poor quality of building quality that is 51 families, with semi permanent house quality with percentage of 54.83% and 30 families have emergency building quality 32.25%, while there are 12 families or 12.90% who have permanent houses.
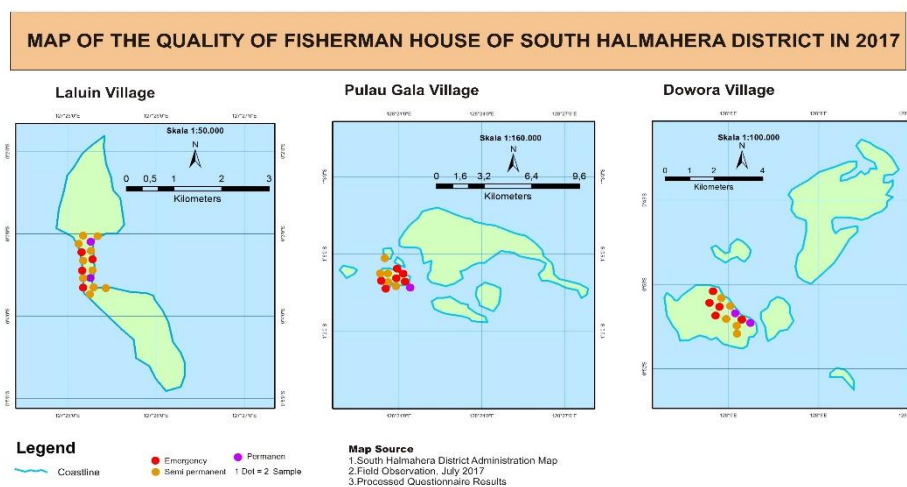

Figure 2. Map of Building Quality of Bajo Tribal Fishermen House

Table 3. Characteristics of Poverty Based on Building Quality of Fisherman's House

No	Building Quality	Village						Total	
		Laluin		Pulau Gala		Dowora			
		F	%	F	%	F	%	F	%
1.	Permanent	5	14,70	3	8,82	4	16	12	12,90
2.	Semi Permanent	21	61,76	19	55,88	11	44	51	54,83
3.	Emergency	8	23,52	12	35,29	10	40	30	32,25
	Total	34	100	34	100	25	100	93	100

Source: Data Processed Results, 2017

The results of the study indicate that there are still many fishermen families who have semi-permanent and emergency housing quality, while a small percentage of fishing families have permanent housing quality. This indicates that more than 80% of the Bajo Tribal fishermen are below the poverty line based on where they live. Decreasing the quality of housing in terms of health and neatness standards, will affect many aspects of daily life of the population, namely health aspects, and the effectiveness of community activities.[16] The convenience of life will be exacerbated by the occurrence of the current temperature increase. As the study in various regions such as in Jakarta and Makassar.[17,16,19] The state of emergency and semi-permanent houses will be directly affected by high temperatures, even droughts,[20,21] leading to the inconvenience of fishermen's life.

4. Conclusion

Characteristics of poverty in fishing communities Bajo tribe based on house building is: house building quality is still dominated by semi permanent house 54,83% and emergency 32,25%. This is a description of the poverty of the fishing community of the Bajo Tribe. This is due to the low level of income and the high number of household dependents. If it is left then it will cause poverty in a sustainable manner. Therefore, this situation requires serious attention for both regional and central government.

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Corrigendum: **Mapping of Poverty Characteristics, based on the quality of Fisherman's House, Bajo Tribe, South Halmahera, Indonesia.**

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Rosmini Maru, Ramli Umar, Syukri Nyompa, Takdir Ismail, Amal Arfan, Sulaiman Zhiddiq, and Uca Sideng
Department of Geografi, Faculty of Mathematic and Natural Science, Universitas Negeri Makassar, 90222, Indonesia

Page 1. Introduction

In the introduction section, the following text appears:

Indonesia as an archipelagic country, has a vast coastal *area, [1,2],* inhabited by two million fishermen and farmers and an estimated 60% of fishermen in the village and the average income is still in under its minimal *needs.[3]* Even the National Committee of Indonesian Fishermen Organization (KPNNI) in 2009 stated that about 90% of Indonesian fishermen live in *poverty.[4]*

This should read:

Indonesia as an archipelagic country, has a vast coastal *area [1,2],* inhabited by two million fishermen and farmers and an estimated 60% of fishermen in the village and the average income is still in under its minimal *needs [3].* Even the National Committee of Indonesian Fishermen Organization (KPNNI) in 2009 stated that about 90% of Indonesian fishermen live in *poverty [4].*

Page 2

In the introduction section, the following text appears:

South Halmahera Regency is a group of islands, many of which are occupied by the Bajo Tribe. The Bajo tribe in this area reaches a population of *21.9836.00* people [14]

This should read:

South Halmahera Regency is a group of islands, many of which are occupied by the Bajo Tribe. The Bajo tribe in this area reaches a population of *219,836* people [14]

Page 2. Method

In the method section, the legend in Figure 1 is written:

"SISTEM KOORDINAT"

This should read:

"COORDINATE SYSTEM"

Page 3:

In the method section, the following text appears:

Table 1. House Quality Indicators and Weights

Floor area		Floor Type		Wall Types	
area	Score	Material	Score	Bahan	Score
$< 8\ m^2$	1	Land	1	Bamboo	1
$> 8\ m^2$	2	Wood	2	Triplex	2
		Cement	3	Zinc	3
		Ceramics	4	Wood	4
				Wall without Plaster	5
				Plastered Wall	6

Source: [5]

This should read:

Table 1. House Quality Indicators and Weights

Floor area		Floor Type		Wall Types	
area	Score	Material	Score	Material	Score
$< 8\ m^2$	1	Land	1	Bamboo	1
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		Cement	3	Zinc	3
		Ceramics	4	Wood	4
				Wall without Plaster	5
				Plastered Wall	6

Source: [5]

In the method section, the following text appears:

Table 2. Home Quality Category

Criteria (Number Weight)	Criteria
10 – 12	Permanent
7 – 9	Semi Permanent
3 – 6	Emergencyt

Source: [5]

This should read:

Table 2. Home Quality Category

Interval	Criteria
10 – 12	Permanent
7 – 9	Semi Permanent
3 – 6	Emergencyt

Source: [5]

Page 3. Results and Discussion

In the result and discussion section, the legend in Figure 2 is written:

"Pulau Gala Village"

This should read:

"Gala Island Village"

Page 4.

In the result result and discussion section, the following text appears:

Table 3. Characteristics of Poverty Based on Building Quality of Fisherman's House

No	Building Quality	Village						Total	
		Laluin		Pulau Gala		Dowora			
		F	%	F	%	F	%	F	%
1.	Permanent	5	14,70	3	8,82	4	16	12	12,90
2.	Semi Permanent	21	61,76	19	55,88	11	44	51	54,83
3.	Emergency	8	23,52	12	35,29	10	40	30	32,25
	Total	34	100	34	100	25	100	93	100

Source: Data Processed Results, 2017

This should read:

Table 3. Characteristics of Poverty Based on Building Quality of Fisherman's House

No	Building Quality	Village						Total	
		Laluin		Gala Island		Dowora			
		F	%	F	%	F	%	F	%
1.	Permanent	5	14.70	3	8.82	4	16	12	12.90
2.	Semi Permanent	21	61.76	19	55.88	11	44	51	54.83
3.	Emergency	8	23.52	12	35.29	10	40	30	32.25
	Total	34	100	34	100	25	100	93	100

Source: Data Processed Results, 2017

In the result and discussion section , the following text appears:

"*The results of the study indicate that there are still many fishermen families who have semi- permanent and emergency housing quality, while a small percentage of fishing families have permanent housing quality. This indicates that more than 80% of the Bajo Tribal fishermen are below the poverty line based on where they live. Decreasing the quality of housing in terms of health and neatness standards, will affect many aspects of daily life of the population, namely health aspects, and the effectiveness of community activities.[16] The convenience of life will be exacerbated by the occurrence of the current temperature increase. As the study in various regions such as in Jakarta and Makassar.[17,16,19] The state of emergency and semi-permanent houses will be directly affected by high temperatures, even droughts,[20,21] leading to the inconvenience of fishermen's life*".

This should read:

The results of the study indicate that there are still many fishermen families who have semi-permanent and emergency housing quality, while a small percentage of fishing families have permanent housing quality. This indicates that more than 80% of the Bajo Tribal fishermen are below the poverty line based on where they live. Decreasing the quality of housing in terms of health and neatness standards, will affect many aspects of daily life of the population, namely health aspects, and the effectiveness of community activities [21]. The convenience of life will be exacerbated by the occurrence of the current temperature increase. As the study in various regions such as in Jakarta and Makassar [17];[18];[19]. The state of emergency and semi-permanent houses will be directly affected by high temperatures, even droughts [20];[21], leading to the inconvenience of fishermen's life, even against the progression of the disease as dengue fever disease [22]. The situation will then affect the physical, biological, and chemical water supply [25]. One of the efforts that can be done in handling clean water is to keep the forest area and its surroundings [26].

Page 4: Conclusion

In the conclusion section, the following text appears:

Characteristics of poverty in fishing communities Bajo tribe based on house building is: house building quality is still dominated by semi permanent house *54,83%* and emergency *32,25%.*

This should read:

Characteristics of poverty in fishing communities Bajo Tribe based on house building is: house building quality is still dominated by semi permanent house *54.83%* and emergency *32.25%.*

Additional References:

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