# STREET VENDORS HOUSING CONDITION AND THEIR COMMUNITY BASIC NEEDS AT MARISO DISTRICT, MAKASSAR, INDONESIA

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# ABSTRACT

This study identifies slum-housing problems in the coastal area of Makassar city, where many street vendors working at Losari Beach live there. Combustible house construction and the high house density cause a high risk of mass houses fire disaster. The most significant independent variables, which determine frequent community disease are using buying water for washing, followed by distance from house to close gutter and garbage disposal method. Street vendors need some basic public facilities, in their residence, such as city clean water sanitary, garbage collection service, public bath room, public washing room, public toilet, sport area, kindergarden, small market etc. Urban housing development in developing countries, especially on the poor people housing development should be focused on sociocultural and economic approach rather than on merely physical approach. Community based development and humanist stance are appropriate for slum housing development.

# **INTRODUCTION**

# **1.1 Background**

Geographically, Makassar city is located approximately in the center of Indonesia. Eastern part of Indonesia archipelago is a good land for tropical spices plantation, which European people like very much. Historically, Makassar harbor was the best place for collecting spices before taking them to European countries. Makassar was a capital city of Gowa Kingdom until XVII Century. There are some Gowa Kingdom heritage such as ruin of ports, tomb of the king family, and other cultural heritage such as ancient ceramics, ancient documents, local traditional songs, local languages etc. Those things prove that Makassar is also the center of cultural development in South Sulawesi province. Probably due to the geographical potency, Makassar is growing to become the most appropriate city for both regional and international trade center. Also supported by ocean harbor and international airport, Makassar is becoming the prime city in the eastern part of Indonesia. On the other hand, as a provincial capital, Makassar city is the center of industry, trade, higher education, health services, and transportation services.

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The phenomenon and condition cause many people move from surrounding regencies and even from far away regions to Makassar city for working. The majority of migrants are low education, low skill, and also have no much money <sup>5)</sup>. They are in a large number and usually work at the informal sectors such as trishaw (*becak*) driver, building construction labor, housemaid, marginal retail seller, street vendor etc. In regard to the street vendors, most of the city government and some middle and high-class society do not like them because they often cause traffic jam, litter, and create slum area. Most of the city government solves the negative impact of street vendor activities by persistent policy, and therefore this interest conflict occurs continuously with many sad stories. Most street vendors are agglomerating in the west coast of the city, which has a fantastic sunset panorama. Even street vendors have a negative impact on urban environment, but the rush growth of street vendors proves that many urban people need their existence 5<sup>9</sup>.

The potential geography, history, industrial and trade activities, availability of good public facilities such as ocean harbor, international airport, higher education campuses, and heterogeneous people are considered as the formulation of the vision of Makassar City. The vision of Makassar is the city of maritime, trade, higher education, culture, services, sustainable development, global orientation and the friendliest city. To reach the vision, Makassar has some potential development but it also has some urban problems like street vendors. Historically, not any city can successfully handle the street vendors by persistent policy. So the question is until when the city government always thinks that street vendor is a problem? Probably it is better if we build the city together with the informal sector people as a partner by community based development approach.

Systemic stance which was founded and developed by Yona Friedman, Herman Hertsberger and Aldo Van Eyck in Europe and the similar theory called structuralist founded and developed by Kenzo Tange in Japan think that the future of macro city form is determined by the main city infrastructure such as roads, railways, drainage and sewage system, electrical system, communication system, etc. Spaces between main urban infrastructure are filled by local people's environmental development of which is supported by Humanist stance founded and developed by British Townscape School. Humanist stance puts the urban designers as advisors and facilitators of the local people for development of

their environment<sup>1)</sup>. According to the systemic, structuralist and humanist theories, Makassar coastal area hopefully becomes a beautiful water front city which as appropriate for both formal and informal activities such as wholesale, retail, tourism, which some kinds of transportation modes can move along with. For the time being, all street vendors at Losari Beach have been already moved to more appropriate place at Metropolitan street, the connection road of new modern town Tanjung Bunga at the southwest coast of Makassar City with recreation and shopping area of Losari Beach. Unfortunately, most of those street vendors live in slum housing in the coastal area without appropriate public facilities and public services. They live in cheap houses at Mariso District, where the place is near to their work at Losari Beach, see Figure 1. This study is focused on the slum housing condition of the street vendors at Mariso District.

### 1.2 Problem

The problems are: (a) how worst is their housing condition? (b) What kinds of significant factors are related to their disease? (c) What kind of public facilities and public services are needed by street vendor community (d) what kind of slum housing development approach is appropriate?

# 1.3. Aim of The Study

The aims of this study are: (a) to identify the worst slum housing condition caused by fire disaster and public health; (b) to identify the determinant factors to the street vendors frequent disease; (c) to explore the community basic need concerning public health, social and economic facilities and services; and to identify the appropriate way for slum housing development.

#### **METHOD**

Cross tabulation technique was used to identify the correlation between house property statuses with house construction condition concerning fire disaster. Another tabulation technique was also used to identify the rank of public basic need for public health improvement, and basic need for social and economic activities. Regression technique is used to identify the significant determinant factors on disease occur frequent. The number of samples is 110 street vendors taken from approximately 200 street vendor population<sup>3)4)</sup>.

# **EXISTING CONDITION OF STUDY AREA**

Mariso District is located in the west coastal area of Makassar city, and covers 184.18 ha area with daily temperature 29<sup>0</sup>-33<sup>0</sup> C. Mariso area is flat and low, around 1 meter above sea level. In the rainy season this residential area suffer from flood. Now, due to the garbage and domestic wastewater, the water of lagoon is dirty. People do not care about the dirty water body. They are not aware that the dirty water can make their well to be contaminated by bacteria or chemical liquid. We need environmental clean up movement based on local people as in some places in America<sup>2)</sup>. Due to the high building density and combustible building material the houses are high-risk mass fire disaster. Approximately the distance from Mariso District to the street vendor work place at Losari Beach is 1,5 km, see Figure 1. A lot of street vendors who work at Losari Beach live at Mariso District. There are some kinds of resident occupation at Mariso District, see Table 1.

No	Occupation	People	Ratio (%)
1	Enterprise	2,630	19.83
2	Manufacture industrial labor	176	1.33
3	Building construction labor	97	0.43
4	Retailer	1607	12.12
5	Transportation	78	0.59
6	Government official	6,140	46.29
7	Military and policeman	1,670	12.59
8	Pension	865	6.52
	Total	13,263	100.00

Table 1. Occupation of Mariso District Residents 1999

Source: Mariso District Monograph, 1999



Most residents are government officials 46.29%. People work at enterprises such as shops, restaurants, hotels etc. is 19.83%. There are military residential area and policeman residential area and occupied by 12.59% people. Retailers included street vendors is 12.12%. Most street vendor live in the high-density slum residential area, which lacks of urban public services and suffers from flood of the heavy rain season.

Street vendor work hour approximately from 16:00 - 24:00. They bring their cart included food, drink, cooking tools, table and chairs around 15:30 from their house to work place at Losari Beach. Around 24:30 they go home. On weekends and clear weather their work time usually extends until 1:30.

### **RESULTS AND DISCUSSION**

Population and household characters are explained in Table 2. Mariso district is one of the high population density areas in Makassar city, 282.92 people/ha.

No	Sub district	Рор	H.hold	Area	Popden	H.hold	Area/household
		(people)	(unit)	(ha)	People/ha	density	(m2/unit)
1	Bontorannu	5,224	1,217	18	290.22	67.61	147.90
2	Tamarunang	4,683	1,007	12	390.25	83.92	119.17
3	Mattoangin	3,833	771	18	212.94	42.83	233.46
4	Buyang	3,520	723	16	220.00	45.19	221.30
5	Mariso	7,621	1,607	18	423.39	89.28	112.01
6	Lette	8,062	1,619	15	537.47	107.93	92.65
7	Mario	4,716	1,080	28	168.43	38.57	259.26
8	Panambungan	9,279	1,975	31	299.32	63.71	156.96
9	Kunjungmae	4,553	906	26	175.12	34.85	286.98
	Mariso District	51,491	10,905	182	282.92	59.92	166.90

Table 2. Population Density and Household Density in Mariso District, 2000

Source: developed data from Mariso District Statistic, 2000

The highest population density is Lette sub district, 537.47 people/ha, the second highest is Mariso, 423.39 people/ha, followed respectively by Tamarunang, 390.25 people/ha, Panambungan, 299.32 people/ha, Bontorannu, 290.22 people/ha, Buyang 220 people/ha. The other sub districts population density are not very high. Generally the average of Mariso district population is 282.92 people/ha. According to the household density, one unit household in Mariso district averagely covers 166.90 m2, included public

space area such as open spaces, rivers, roads, and the house land area. The smallest area/household is Lette subdistrict, 92.65 m2, followed by Mariso sub district 112.01 m2, Tamarunang 119.17 m2, Bontorannu 147.90 m2, and Panambungan 156.96 m2. The other sub districts are more than 200 m2/household. If one household represents one house, so more high density of household means more houses have a risk of fire disaster. The other main problem of slum housing is disease.

Slum housing has a high risk of fire disaster. Based on the building materials of roof, wall and raise floor we can make two categories. Category 1 is the houses use combustible building materials. These houses have a high risk of fire disaster. Category 2 is the houses use incombustible building materials. This category is safe from fire disaster. Table 3 shows the ratio of both categories. There are seven worst samples of data, and therefore this study uses 103 samples.

	Single ground floor		Two floor		
	Combustible	Incomb.	Combustible	Incomb.	Total
Own house	15.53%	14.56%	10.68%	3.88%	64.08%
Rental house	18.45%	15.53%	15.53%	5.83%	35.92%
	33.98%	30.10%	26.21%	9.71%	100.00%

Table 3. Ratio of Combustible House Condition Concerning House Status, 2000

Table 3 shows 64.08% street vendors live in their own houses, and 35.92% live in rental houses. According to probability of fire disaster, the ratio of high-risk houses is 60.19%. Combustible ground floor houses are 33.98% and combustible two floor houses are 26.21%. Rental combustible houses construction, 33.98% more than incombustible house construction, 20.39%. This building construction character and the high houses density cause a high risk of mass houses fire disaster. The mass houses fire disaster often occurs in slum housing, especially during the dry season.

Table 4 shows the regression model summary of the determinant significant of nine dependent variables such as the use of water for cooking, the use of water for washing, the garbage disposal method, the distance of wall from waste water gutter to independent variable or disease frequently occurs on the household in the year 2000. Table 4 indicates the most significant dependent variable 9 (using buying water for washing) and followed by

dependent variable 8 (distance from house wall to close gutter) and dependent variable 7 (garbage disposal method). The kind of disease, which often occurs in slum housing, is stomachache. Probably the worst hygiene quality of water is buying water. The use of buying water to wash food raw materials and crockery causes people to have a risk of the disease. The second worst is well water. The use of well water for washing also has a high risk of suffer the disease. Probably the wells in this slum housing are contaminated by some kind of bacteria coming from wastewater and garbage. Then dependent variable 8 is significant for the disease. Some people have a bad attitude of littering anywhere, included disposing garbage to open gutter, and therefore the slum area is dirty and not hygiene.

Garbage, wastewater and sediment flow down through gutters and city canal to the Losari beach everyday. The phenomena cause Makassar coastal sea becomes shallow gradually and the water becomes dirty. Slum housing along the beach line physically is a bad view. This condition is one of the city weaknesses to build a beautiful Makassar water front city as a maritime city. Mariso district is located on the bay side of the new city lagoon formed by metropolitan road construction, see Figure 1.

Economic crisis since 1997 causes urban poor community to be poorer. In order to improve the economic condition of the urban poor people, central and local governments conducted some urban slum housing development projects called social safety network project. This project uses community based development approach, which the local community is able to participate actively in the whole housing development process: problems identification, planning and construction.

Street vendors need their residential area better. By collecting their opinions we can identify what kind of need to improve their living environment. Table 5, Table 6 and Table 7 show the street vendor needs, such as public health facilities and services, social and economic facilities.

Table 5 identifies the rank of the street vendor needs concerning public health. Most of them who have no been access yet to reached by city clean water system hope this system immediately. If clean water system is difficult to access their houses, they need public hydrant, public bathroom, public washing room and public toilet. They do not have a place and facilities for garbage disposal, so they also in badly need of garbage collection service system.

Model	R	R Square	Contribution	Std.Error of
				the Estimate
1	0.291 <sup>a</sup>	0.085	0.000	1.47
2	0.291 <sup>b</sup>	0.085	0.000	1.46
3	0.288 <sup>c</sup>	0.083	0.002	1.45
4	0.282 <sup>d</sup>	0.080	0.003	1.45
5	0.273 <sup>e</sup>	0.074	0.006	1.45
6	0.263 <sup>f</sup>	0.069	0.005	1.44
7	0.250 <sup>g</sup>	0.063	0.003	1.44
8	0.225 <sup>h</sup>	0.051	0.012	1.44
9	0.191 <sup>i</sup>	0.036	0.036	1.45

Table 4. Regression Model Summary

Note:

- a. Predictor: (Constant), var1, var2, var3, var4, var5, var6, var7, var8, var9
- b. Predictor: (Constant), var2, var3, var4, var5, var6, var7, var8, var9
- c. Predictor: (Constant), var3, var4, var5, var6, var7, var8, var9
- d. Predictor: (Constant), var4, var5, var6, var7, var8, var9
- e. Predictor: (Constant), var5, var6, var7, var8, var9
- f. Predictor: (Constant), var6, var7, var8, var9
- g. Predictor: (Constant), var7, var8, var9
- h. Predictor: (Constant), var8, var9
- i. Predictor: (Constant), var9

Independent variable is the frequent of disease occur per year

Var 1 is distance from house wall to open gutter

Var 2 is using well water for cooking

Var 3 is using city clean water sanitary for washing

Var 4 is using well water for washing

Var 5 is using buying water for cooking

Var 6 is using city clean water sanitary for cooking

Var 7 is garbage disposal method

Var 8 is distance from house wall to close gutter

Var 9 is using buying water for washing

No	Facility	Need people ratio (38%)	Rank
1	Clean water sanitary	38	1
2	Garbage collecting service	38	1
3	Public bath room, wash room and toilet	26	2
4	Public septic tank	14	3
5	Community health center	10	4

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Table 5. Street	Vendors Need	s for Public	Health Facilities	and Services.	,2001

Street vendors as representative of the whole poor community need several social facilities such as sport area, kinder garden, junior high school and guard post for community safety self service. See Table 6.

Table 6. Street Vendors Needs for Residential Social Facilities

No	Facility	Need people ratio (38%)	Rank
1	Sport area	36	1
2	Kindergarden	18	2
3	Junior High School	16	3
4	Environment Safety Post	12	4

Table 7 identifies that concerning everyday shopping activity, they need small traditional market and some shops.

Table 7. Street Vendors Needs for Residential Economic Facilities

No	Facility	Need people ratio (%)	Rank
1	Market	14	1
2	Shop	6	2

The above discussion makes us aware that the success of urban design needs community's sociocultural and economic approach. Urban design in developing countries should consider the local people's social, cultural and economic approach more than the physical construction.

# CONCLUSION

- More than half street vendors live in their own houses. According to probability of fire disaster, the ratio of combustible houses is 60.19%. Ratio of combustible rental houses is more than ratio of combustible own houses, both single floor and two floor buildings.
- 2) From nine independent variables, regression analysis identifies only three significant variables probably cause the community disease. There are the use of buying water for washing, distance from house to close gutter, and garbage disposal method.
- Street vendors public basic needs are city clean water sanitary, garbage collection service, public bathroom, public washing room, public toilet, sport area, kindergarden, small market etc.
- According to experiences on social safety network projects, the appropriate approach to slum housing development should consider carefully the community based development system and humanist stance.

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