The impact of the COVID-19 pandemic on the social environmental aspects of the urban poor in Medan City, North Sumatra Province, Indonesia

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Abstract. This study aims to determine the impact of the COVID-19 pandemic on the urban poor's social environment in Medan City in the context of sustainable development. This research was conducted from September to November 2020 on the suburban of Medan City, namely in Subdistrict of Medan Tuntungan, Subdistrict of Medan Sunggal, and Subdistrict of Medan Tembung, which were determined on purpose. The sample in this study was the suburban community with 99 respondents who were determined using the Slovin method. The data used in this research are primary data and secondary data and are processed descriptively. The COVID-19 pandemic has a negative impact on the urban poor's social environment in Medan City and resulted in a decrease in the average number of community meetings with relations by 85.56%. The COVID-19 pandemic has also caused average communication and interaction between communities to decrease by 87.2%. Visits of fellow decreased by 92.6% during the pandemic and caused a decrease in community gatherings as an indicator of the poor's social environment by 85.5%. The COVID-19 pandemic has a negative impact on the urban poor's social conditions in Medan City and the sustainable development process in Medan City. Following the conclusion, it is suggested that the public optimize online media for meetings with relationships, communication, the interaction between communities, and optimize virtual community meetings and replace online visits so that kinship is appropriately maintained.

1. Introduction

The COVID-19 pandemic has had a global impact on all sectors of people's lives around the world, not only having a destructive impact on human health but also having a negative impact on the social and economic conditions of society [1], and also having a severe impact on the process sustainable development because due to the COVID-19 pandemic the planned development process is not optimal[2]. That due to the COVID-19 pandemic, economic activities in various countries around the world were disrupted. The poverty rate increased due to various economic activities, especially service economies, based on intangible economic activities[1]. The COVID-19 pandemic caused an economic crisis and increased unemployment in the United States[3].

Apart from COVID-19, human civilization has witnessed at least some very terrifying pandemics in this century, such as H1N1 in 2009, polio in 2014, Ebola in West Africa in 2014, Zika in 2016 and Ebola in 2019 in the Democratic Republic of Congo [4]. The COVID-19 outbreak has been declared a deadly global epidemic and deserves serious attention for the safety and health of the international community, as stated by WHO on 30 January 2020. This pandemic occurred worldwide and caused...
many deaths, morbidity, and has cost up to billions of dollars in the process of handling and economic recovery due to this pandemic [5]; [6].

The COVID-19 pandemic has also had a bad impact on the Indonesian economy. Indonesia's economic growth is projected to worsen in 2021. Even the International Monetary Fund (IMF) projects Indonesia's economic growth to only 0.5%. However, economists in Indonesia project that Indonesia's economic growth will be between 1.0 - 1.8%, far below the economic growth in recent years, which is around 5% [7]. Thus the development agenda is in the form of; poverty alleviation, the increase in the human development index (HDI) will experience disruption, even unemployment is predicted to increase from 8% in 2019 to 12% by the end of 2020.

The COVID-19 pandemic in general has affected community activities, both economic activities such as; fishery, tourism and recreation activities even disrupt community activities in settlements and disrupt other public service facilities. In addition, due to the COVID-19 pandemic, the crisis has turned into an economic and labor market shock, affecting not supply (production of goods and services) but also demand [8].

The COVID-19 pandemic caused disruption in the production of goods and services in various sectors, which started in Asia, has now spread throughout the world. The industrial and business sectors are facing serious challenges, especially in the aviation, tourism and hospitality industries experiencing a real shock and a significant decline in income, which triggered bankruptcies due to the pandemic. The existence of travel restrictions, self-quarantine measures or self-isolation indirectly also affects not only the income level but also the social conditions of the community [8].

The COVID-19 pandemic has caused substantial changes and reallocation of economic activity and it is taking a long time for the economic sector to recover. The COVID-19 pandemic has changed human civilization, so that humans manipulate nature to meet their own needs, the pandemic also has an impact on the needs of human life, thus affecting industrialization, even impacting environmental conditions and significant sustainable development [9]. The current COVID-19 pandemic is having a very serious impact on economies around the world and has caused drastic changes in business practices and consumer behavior [10].

The pandemic COVID-19 is a serious threat to all levels of society including disrupting the process of sustainable development and requires global attention, even from all countries in the world. The government must provide the right information to help people deal with this epidemic, before it threatens environmental conditions globally [9]. Not only does it have an impact on human health, but the COVID-19 pandemic also disrupts human security. According to the United Nations on Development Program (UNDP), human security consists of several issues including: economic security, health security, food security, environmental security, personal security, community security and political security. Human security brings together elements of human security to which everyone is entitled [11].

Besides that, the COVID-19 pandemic indirectly has a broad impact on the environment. In some places, such as hospitals and Public health center, there is noise generated by public health center activities for the community [12]. Environmental noise is one of the main sources that can disrupt the community's environment and in the end can cause health problems and changes in natural conditions and ecosystems [13].

Besides having an impact on global social and economic conditions, the COVID-19 pandemic has also had a negative impact on regional social and economic conditions, including for people living on the suburban area in City of Medan. In the long term it is necessary to take collaborative actions to restore the social and economic conditions of the community by increasing the productivity of economic activities and the social recovery of the local community to support the sustainable development process, especially that the condition of the people in Medan City is still vulnerable to poverty conditions. Based on the results of the 2018 Susenas, around 8.25 percent of the population of Medan City is below the poverty line, which is around 192.45 thousand people. On the other hand, the value of the Human Development Index (HDI) in Medan City slightly increased, namely 79.98 in 2017 to 80.65 in 2018. This index is one of which is formed by several indicators of life expectancy, namely 72.64 years, old school expectations 14, 72 years, the average schooling is 11.37 years and expenditure per capita is 14.84 million/capita/year [14].
The poverty rate of 8.25% in the Medan City in 2018 is classified as very high, especially during the COVID-19 pandemic, of course this figure is getting higher, generally the urban poor. In the long term, of course this condition will not only have a social and economic impact on the community, but also have an impact on the sustainable development process, therefore this research was conducted from September to November 2020, in suburban area of the city to see the impact of the COVID-19 pandemic on social environmental conditions urban poor in Medan City, North Sumatra Province.

2. Research methodology
This research was conducted from September to November 2020 in the suburban of Medan City, namely in Subdistrict of Medan Tuntungan, Subdistrict of Medan Sunggal and Subdistrict of Medan Tembung which were determined on purpose. The Medan City is one of the areas most affected by COVID-19 in North Sumatra. The population in this study were the suburban of Medan City who were impacted by COVID-19 socially and economically with a population in Subdistrict of Medan Tuntungan 4,094 families, Sub-district of Medan Sunggal 5,354 families and Sub-district of Medan Tembung 6,918 families [14].

The determination of the sample size is based on the things you will want to research, how the research aims and the extent to which you want to know and most importantly it must be representative [15]. Under the assumption that samples are normally distributed [16]. In this study the method used to determine the number of samples is to use the Slovin formula, with the formula:

\[ n_c = \frac{N}{1 + \frac{Ne^2}{N}} \]

where: \( n_c \) = sample size, \( e = \) error interval/\( \infty \) (0.1), \( N = \) amount of population. Based on the calculations carried out, with a population of 16,366 families, with an error interval (0.1) or \( \infty = 10\% \), a sample of 99.393 is obtained and then rounded to 99 respondents. Thus the sample in this study was determined as many as 99 respondents who allocated proportionally, namely in Sub-district of Medan Tuntungan as many as 25 respondents, Sub-district of Medan Sunggal with 32 respondents and Sub-district of Medan Tembung as many as 42 respondents.

The data used in this study are; primary data and secondary data. Primary data is data obtained from the field by interview using a questionnaire. Secondary data is data sourced from the publication of The Statistic of Medan Municipality, various journals as well as research results and other related official publications which are analyzed descriptively.

3. Results and Discussion

3.1. The impact of the COVID-19 pandemic on the social environment of the urban poor
The COVID-19 pandemic has had a negative impact on the social environment of the urban poor in Medan City, and this condition also affects the sustainable development process. Based on interviews with 99 respondents regarding the impact of the COVID-19 pandemic on the urban poor in Medan City in Sub-district of Medan Tuntungan, Sub-district of Medan Sunggal and Sub-district of Medan Tembung, it is known that the pandemic has an impact on the social environment of the community based on indicators of aspects of social relations between communities as shown in Figure 1.

Figure 1 shows that the COVID 19 pandemic has a negative impact on the social environment of the urban poor in Medan City, based on indicators of social relations. The results of the analysis show that there was a decrease in amount of meetings with relations, where before the pandemic the average of meeting with the relationship was 3.85 times per month and the pandemic period the average of meeting with the relationship was 0.56 times per month or there was a decrease of 85.56%.
Figure 1. The impact of the COVID-19 pandemic on the social environment of the urban poor, based on an indicator of amount of meetings with relations/ month.

Caption: (a) amount of meetings with relations/ month before the pandemic (b) amount of meetings with relations/ month during the pandemic.

Source: Data processed by the author, 2020.

Figure 1 shows that the COVID-19 pandemic has a negative impact on the social environment of the urban poor in Medan City, based on indicators of social relations. The results of the analysis show that there was a decrease in amount of meetings with relations, where before the pandemic the average of meeting with the relationship was 3.85 times per month and the pandemic period the average of meeting with the relationship was 0.56 times per month or there was a decrease of 85.56%.

Besides having an impact on social relations between communities which can be seen from the amount of meetings with relations, the COVID-19 pandemic also has a negative impact on the social environment of the urban poor which also has an impact on the process of implementing sustainable development as seen from the indicators of communication and interaction between communities based on the results of interviews with 99 respondents as in Figure 2.

Figure 2. The impact of the COVID-19 pandemic on the social environment of the urban poor, based on indicators of the amount of communication and interaction between people/month.

Caption: (a) amount of communication and interactions between people/ month before the pandemic (b) the amount of communication and interaction between people/ month during the pandemic.

Source: Data processed by the author, 2020.

Figure 2 shows that the COVID-19 pandemic has an impact on the social environment of the urban poor in Medan City based on indicators of communication and interaction between people. The results of data analysis showed a decrease in communication and interaction between people, where before the pandemic the average communication and interaction between people was 3.55 times per month and during the pandemic the average communication and interaction was 0.45 times per month or a decrease of 87.2%.
The results of data analysis also show that the COVID-19 pandemic has an impact on the conditions of kinship between communities or visits to fellow as an indicator of the social environment of the urban poor according to the results of interviews with 99 respondents as presented in Figure 3.

**Figure 3.** The impact of the COVID-19 pandemic on the social environment of the urban poor, based on the conditions of kinship between communities or visits to fellow as indicator.

Caption: (a) amount of visits to fellow/ month before the pandemic, (b) amount of visits to fellow/ month during the pandemic.

*Source: Data processed by the author, 2020*

Figure 3 shows that the COVID-19 pandemic has an impact on the social environment of the urban poor in Medan City as seen from the indicator of conditions of kinship between communities or visits to fellow. The results of data analysis showed a decrease in the number of conditions of visits to fellow. Before the COVID-19 pandemic, the average number of visits to fellow by communities between people was 4.51 times/ month, but during the Covid-19 pandemic these visits decreased by an average of 0.33 times per month or a decrease of 92.6%.

The results of data analysis also show that the COVID-19 pandemic has an impact on disruption of community meeting activities as an indicator of the social conditions of the urban poor in Medan City, according to the results of interviews with 99 respondents as presented in Figure 4.

**Figure 4.** The impact of the COVID-19 pandemic on the social environment of the urban poor, based on indicators of community meetings

Caption: (a) amount of meetings in the community/ month before the pandemic, (b) amount of meetings in the community/ month during the pandemic.

*Source: Data processed by the author, 2020*

Figure 4 shows that the COVID-19 pandemic has an impact on the social environment of the urban poor in Medan City as seen from the indicators of community meetings. The results of data analysis showed a decrease in the number of meetings in the community. Prior to the COVID-19 pandemic the
average number of meetings in the community was 3.63 times per month, but during the pandemic the meetings in the community decreased by an average of 0.53 times per month or a decrease of 85.5%.

3.2. Discussion
The results showed that the COVID 19 pandemic had a negative impact on the social environment of the urban poor in Medan City. As a result of the Covid-19 pandemic, an average of 85.56% of community meetings with relations occurred. The results of this study are in line with the results of previous studies that social distancing (actually physical distance) requires the development of new habits for survival and new interaction approaches. This actually creates a gap between the community and relatives which has an impact on the social conditions of the community in general, which will also disrupt the process of implementing sustainable development [17]. In addition, the COVID-19 pandemic also has an impact on social systems, ecology and environmental conditions and can have a wide impact, ranging from radical changes in individual lifestyles to society in general [18].

The COVID-19 outbreak affects all segments of the population and has even harmed all members of social groups. Even in the most vulnerable situations it continues to affect the population and includes people living in poverty situations, not least in urban areas who live in slum settlements [17]. An anthropocentric perspective, a pandemic could have implications for a more sustainable future, including creating the insecurity of shorter socio-ecological systems or supply chains [18]. The results also show that the impact of the COVID 19 pandemic also has an impact on the social environment of the urban poor in Medan City, where the average communication and interaction between people has decreased by 87.2% during this pandemic.

The results of this study are in line with previous findings which stated that personal communication during the COVID-19 pandemic also experienced disruption. So a process is needed to improve communication between people during the COVID-19 pandemic [19]. Even though direct communication is already a culture and shows how to behave and our hospitality in the midst of society. Ethnocentrism is very important in seeing the tendency for the superiority of our communication culture. This form of communication that is superior to other nations is one of the keys to communicating based on culture in communities affected by pandemic Covid-19 [20].

When a disaster occurs, crisis communication appears unpredictable. Pandemic COVID-19 increases the incidence of communication in people's lives. Crisis communication is the real-time exchange of information and opinions from people who understand and understand [21]. Information exchange can be used with various media. The emergence of various speculations related to COVID-19 and information circulating in the confusing society, has made the impact of COVID-19 even more pronounced worse in the social environment and have an impact on the psychology of society. The COVID 19 pandemic also has an impact on the social environment of the urban poor as seen from indicators of relative visits. The results showed that the average number of visits to fellow or conditions of kinship between communities had decreased by 92.6% during the pandemic.

The results of this study are in line with the findings of previous studies related to COVID-19, that the pandemic cannot be ascertained when it will end, even though it has caused various social impacts. Social distancing arrangements must be maintained to avoid various risks [22]. This condition has an impact on social visits in the midst of society. Social change in the form of the application of the physical environment in many countries to prevent prevention has a positive impact. However, the implementation of social distancing, self-quarantine and self-isolation has a negative impact on community social communication [23].

In addition to the decrease in relationship meetings with the community, social interactions and the number of visits by relatives, the COVID-19 pandemic also caused a decrease in community meetings as an indicator of the social environment for the urban poor in Medan City by 85.5% during the COVID-19 pandemic. The results of this study are also in line with previous findings that the COVID-19 pandemic does not only cause a global public health crisis. However, it also causes deaths and raises socio-economic challenges including frightening environmental challenges and pandemics also affects all social activities involving various communities to disrupt the sustainable development process [24].
That the COVID-19 pandemic caused changes in social networks and social relationships between individuals. Social relationships are channels of social support and in times of crisis, social support is very important and needed [25]. But at the same time, physical closeness and opportunities for interaction are important in developing and fostering social bonds [26].

4. Conclusions
The COVID 19 pandemic has a bad impact on the urban poor's social environment in Medan City and has caused a decrease in the average number of community meetings with relations by 85.56%. The COVID-19 pandemic has also caused the average communication and interaction between people to decrease by 87.2%. Visits to fellow or conditions of kinship between communities decreased by 96.2% during the pandemic. Pandemic also caused a decrease in community meetings as an indicator of the poor's social environment by 85.5%. Thus, COVID-19 pandemic has a negative impact on the urban poor's social conditions in Medan City. Of course, this also has a very negative impact on the sustainable development process in Medan City. Based on the conclusion, it is recommended that the public optimize the use of online media for meetings with relationships, communication, and interaction between people and optimize virtual community meetings and replace online visits so that kinship is well maintained.

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