

# DISASTER PREPARATION KNOWLEDGE OF URBAN AND RURAL STUDENTS AT SOLO REGION

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## ABSTRACT

*Solo region covers Sukoharjo, Surakarta and Klaten that have been recognized as vulnerable areas for flood and earthquake. This study wants to determine the level of students' preparedness who attends school in urban and rural areas against floods and earthquakes. The data come from secondary data obtained through research in 2013-2014. 1.150 respondents came from 15 junior high schools. The results show that: 1) the average level of student preparedness against floods is 52.22% and included in the category of less prepared; 2) the average level of preparedness of students to the earthquake is 67.52% and included in the category of prepared; 3) the average level of preparedness of students who attend school in urban areas is 67.72% included in the category of prepared; 4) the average level of preparedness of students who attend school in rural areas is 52.02% and included in the category of less prepared. The study conclude that students who attend school in an urban preparedness higher than students who attend school in rural areas.*

Keywords: Disaster preparedness, urban and rural, school

## INTRODUCTION

Solo region is a functional unity regionalization. Surakarta City as the center of activities of the other regions, namely two of them Sukoharjo and Klaten Districts located in the South and Southwest of Surakarta. Most residents of Sukoharjo and Klaten work in Surakarta as the commuters that traveling back and forth every day as well as shuttle migration. Goods and social services, such as health, also refer to Surakarta which type of service is the most complete compares to Sukoharjo and Klaten.

Urban growth in the Solo region runs rapidly because the physiographic ranging from Sukoharjo and Klaten in the direction of Surakarta gradually from the volcano to the plains. These variations are directly affected by the resulting geomorphology endogenous and exogenous there and make the land fertile. Agriculture is the most activities at this region. Until now, Klaten and Sukoharjo referred to as a major supplier to the food needs of Central Java Province and Nationally. Urban area is also growing rapidly in Surakarta which have flat physiographic. The dynamics of urban and rural space utilization in Solo tinged with the threat of potential disaster, namely the earthquake and floods. National Disaster Management Agency (BNPB) has published that Surakarta, Sukoharjo, and Klaten part in the disaster prone areas with high grade [1]. Rural and urban communities in the region Solo require the disaster preparedness. One of the vulnerable groups that should be

considered in the face of disaster preparedness is students even in urban and rural areas.

Knowledge of preparedness disaster is the most important capacity to cope vulnerability. Vulnerability is the level of threat to community [2]. To reduce the vulnerability, community should have capacity to cope the situation when the threat comes as disaster accident. Disaster preparation knowledge will direct the action in the appropriate reaction. Without disaster knowledge, people at risk behave tend to less possibility to do right. Attention in disaster preparation knowledge of students relate to level of our effort to fulfill the students right as well as the children right. One of student right is protection from violence in all forms [4]. Protection of students also deploy from the three human right principles. Protection from disaster will gave students dignity without weakness in health and psychosocial. The disaster preparation knowledge supports the students to get their right in adequate quality and quantity for worthy life.

Disaster preparation knowledge could be learnt from school and also phenomena surrounding the students. The differentiation in cultural landscape could make the differentiation level of preparedness. By knowing the potential and characteristic of their regions, human is expected to act wiser and prudent in performing all activities in earth so that human will feel same and comfort from any natural phenomenon that happening [5]. This paper describe the levels of student's disaster preparation knowledge who attend schools where located both at urban and rural area.

## METHOD

Survey conducted at Surakarta, Sukoharjo, and Klaten. The unit analysis of data used schools at

urban and rural areas. The data come from secondary data obtained through research in 2013-2014. The number of 1.150 respondents came from 15 junior high school.

**Table 1. School Name and Number of Respondents**

School Name	Disaster	Typical Area	Number of respondents
MTs Negeri Gantiwarno, Klaten	Earthquake	Rural	111
SMP Negeri 2 Polanharjo, Klaten	Earthquake	Rural	78
SMP Negeri 3 Gantiwarno, Klaten	Earthquake	Rural	80
SMP Negeri 1 Cawas, Klaten	Earthquake	Rural	90
SMP Negeri 1 Gantiwarno, Klaten	Earthquake	Rural	86
SMP Negeri 2 Gantiwarno Kelas VII, Klaten	Earthquake	Rural	29
SMP Negeri 2 Gantiwarno Kelas VII, Klaten	Earthquake	Rural	29
SMP Negeri 2 Gantiwarno Kelas IX, Klaten	Earthquake	Rural	29
SMP Muhammadiyah 5 Ngupit, Klaten	Earthquake	Rural	22
SMP Muhammadiyah 7 Surakarta	Earthquake	Urban	64
SMP Negeri 1 Surakarta	Earthquake	Urban	72
SMP Negeri 3 Nguter, Sukoharjo	Flood	Rural	69
SMP Muhammadiyah 1 Sukoharjo	Flood	Rural	77
SMP Negeri 2 Kartasura	Flood	Urban	92
SMP Negeri 6 Surakarta	Flood	Urban	72
SMP Negeri 1 Kartasura	Flood	Urban	150
		TOTAL	1,150

Table 1 shows the distribution of respondents. Most of respondents come from rural schools and urban schools for the rest. From 1,150 students that had been asked for disaster preparedness knowledge, there are 450 students that attend the urban schools and 700 students come from rural areas. Students were asked about their knowledge in disaster preparedness. Disaster preparedness consists of actions allowing governments, organizations, societies, communities and individuals to be able to respond to a disaster situation quickly and appropriately.

## RESULT

### 3.1 Level of Student Preparedness Against Floods

There were 460 students that had been asked their knowledge in flood disaster knowledge. There were 146 students as rural students at that had been asked and other, 314 students as respondents from urban areas. The average level of student preparedness against floods is 52.22% and included in the category of less prepared. The level of less preparedness shows that students do not take fully into account the environmental conditions and interactions that exist between him around. This lack of attention can result from

not experience any face flood conditions. Some research findings indicate that the knowledge of the students do not necessarily show the practical ability [3]. In this case, preparedness built from practical experience.

### 3.2 The average level of preparedness of students to the earthquake

There were 690 students that had been asked their knowledge in earthquake disaster knowledge. There were 554 students as rural students and 136 students as respondents from urban areas. The average level of preparedness of students to the earthquake is 67.52% and included in the category of prepared. Compared with the flood, students prepare better in earthquakes. This is possible because the news about the earthquake is giving the impression that the students. Nonetheless, student preparedness needs to be maintained regularly rehabilitated and reconstructed by the simulation routine. This has not been done though understood as an important requirement to perform the simulation.

### 3.3 The average level of preparedness of students who attend school in urban areas

There were 450 students that had been asked. The average level of preparedness of students who attend school in urban areas is

67.72% included in the category of prepared. Student's preparedness in urban areas are better than rural students. It has a similarity with the results of research on community preparedness in the Bulu District, Sukoharjo where urban communities have better preparedness than the rural population [4]. This is due to the community, including students, who live in cities have a diverse selection of information and better presentation. Accessibility to this information related to IT infrastructure and socio-economic activities in urban areas of more intensive than in rural areas.

### 3.4 The average level of preparedness of students who attend school in rural areas

There are 700 students as the respondents. The average level of preparedness of students who attend school in rural areas is 52.02% and included in the category of less prepared. Referring to the findings of the students who live in urban areas, has been known that the preparedness of students in rural areas is lower because infrastructure of information available in rural areas are not equal in intensity compared with urban areas. Availability of internet connection and provision of wireless communication channels by telephone operators to provide quota still more in urban areas than rural areas. School in urban easier to provide internet access facilities (either using wired or wireless). Likewise, urban public facilities provide high accessibility to reach information.

Disaster preparedness correlated with other aspects of the disaster. In terms of disaster management, capacity of resilience and level of vulnerability have strong relation with community's preparedness [6]. Point of departure on disaster preparedness good student will make communities resilient to disasters. Disaster resilience not only about how to make decisions in order to the victim does not appear, both mental and material. Disaster preparedness is part of disaster risk reduction action that reducing the vulnerability of its regional community to natural hazards [7]. Risk reduction could be a reduction in the level of threat, vulnerability, or the capacity of the students. Although there are interaction of the components of disaster management, but disaster preparedness is a major factor. In disaster management, it begins prior to a disaster occurring with adequate preparedness and prevention in areas prone to disaster [8]. Students in rural areas need better support infrastructure as well as knowledge and skills in the face of disaster.

## CONCLUSION

The study concludes that students who attend school in an urban have better preparedness than students who attend school in rural areas. Students at urban areas have more choice or alternatives of information sources that describe the appropriate actions when disasters happen.

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