

PAPER • OPEN ACCESS

The role of women in deadling with risk of flood

To cite this article: E. Yulianti and Hastuti 2019 *IOP Conf. Ser.: Earth Environ. Sci.* **271** 012026

View the [article online](#) for updates and enhancements.

The role of women in deadling with risk of flood

E. Yulianti, and Hastuti

Departement of Geography Education Post Graduate Education,
Yogyakarta State University, Campus Karang Malang, DIY 55281, Indonesia

Email : ekayulianti.2017@student.uny.ac.id;hastuti@uny.ac.id

Abstract: Disaster is a series of events that threaten human life, resulting in damage, loss and loss of life. Women are vulnerable groups in the event of a disaster, when there are more women who die. Women are more likely to be victims when a disaster occurs because they have a domestic role that is to take care of the house and children so that when a disaster occurs it is difficult to carry out rescue. The research method used is descriptive qualitative by conducting in-depth interviews. The purpose of this study is to analyze how women's participation in dealing with the risk of flood disasters in Kalianda District, South Lampung Regency. The results of this study are that women participate directly in the Disaster Preparedness Village group by conducting counseling and initiating and participating women in Disaster Preparedness Cadets.

1. Introduction

Indonesia is a special archipelago because it is rich in earth resources and is often referred to as the "equatorial emerald strand". Astronomically the Indonesian Archipelago is in an area with the position of the latitude of the Earth 07 ° N - 12 ° LS and the position of Earth Longitude 95 ° East - 141 ° East [1]. The Indonesian territory is an archipelago formed by the interaction of surrounding plates [2]. Indonesia is an Indonesian archipelago arc region that is tectonically formed from the interaction of three plates, namely the Indo-Australian, Pacific and Eurasian plates [3]. Indonesia is a country with very high potential for natural disasters [4]. Such a position must be realized not only as a blessing with a row of active apes that give birth to fertility but a series of disasters can occur at any time [5]. Disasters are a global phenomenon because of the loss of human lives and property globally [6].

Disasters are historically known as events beyond human control, which have a major disruption to society [7]. Disasters are events or series of events that threaten and disrupt the lives and livelihoods of the people caused by natural factors and or non-natural factors and human factors, resulting in fatalities, environmental damage, property losses and psychological effects [8]. Disasters based on genetic factors can be grouped into three classes, namely, natural disasters which include storms, floods, volcanic eruptions, earthquakes, tsunamis, landslides, and meteoric disasters. Biological disasters include epidemics, plant diseases, pets, and species exinction, interopogenic disasters (anthropogrnrc disasters), including technological disasters (leakage of nuclear installations), structural disasters (errors in decision making by pipelines), disasters social, and moral hazard. Disasters are damage or the existence of disturbances that exceed the capacity of affected communities to overcome them [9].

The potential for natural disasters with a high enough frequency is a hydrometerological disaster, namely floods, landslides, droughts, tornadoes and tidal waves [10]. The threat that



threatens in Indonesia is flooding, based on the zoning map of the flood disaster threat in Indonesia sourced from the National Disaster Management Agency (BNPB), almost all regions in Indonesia fall into the threat of a flood disaster. Based on the Indonesian disaster risk index in 2013, Lampung Province shows that South Lampung District has a high disaster risk index, a disaster that often occurs in South Lampung Regency is a flood. Kalianda Subdistrict is one of the areas affected by the flood where when there were disasters dozens of houses were damaged, several historical sites were damaged and there were fatalities. The flood disaster that occurred in Kalianda Subdistrict was caused by the overflow of the Palembang and sukaratu rivers coupled with high intensity rain.

Flooding is a natural cycle but does not get a little human intervention, flooding can be influenced by humans but can also affect humans this reciprocal relationship allows the role of humans in controlling it [11]. Flooding is one of the natural phenomena that occurs due to excess water that is not accommodated by a region's broken tissue, resulting in inundation [12]. Flood disasters are natural events that can occur at any time and often result in loss of life and property. Losses due to flooding can be in the form of damage to buildings, loss of valuables, and losses that result in being unable to go to work and school [13]. Flooding is a routine problem that is often faced by residents who live in the watershed during the rainy season [14].

The impact of disasters can be in the form of loss of life, property, damage to infrastructure, social environment, and disruption to the life order and livelihoods of previously established communities [15]. The disasters that occurred in Indonesia brought impacts and burdens that men and women felt differently. Natural disasters that occur on average kill more women than men, because the life expectancy of women is generally higher than men [16]. Women are more vulnerable to disastrous consequences because of the domestic role of women in the care of children and husbands at home [17]. Women in the event of a disaster are described as universal victims crying, besieged and overwhelmed while men are described as being sturdy and resourceful [18]. Emergency conditions during disasters women have a strategic role, because the role of women has an important role in the process of preparedness in the face of disasters [19]. This study aims to analyze women's participation in reducing the risk of flooding in Kalianda District, South Lampung Regency.

2. Methodology

The research method used in the study was a qualitative deskirptive method, with secondary data sources on flood-prone areas obtained from the Regional Disaster Management Agency (BPBD) of South Lampung Regency and for the primary data used namely in-depth interviews with Mothers Village Heads and Housewives whose areas are affected by floods.

3. Result and Discuccion

Women and flood disaster

Indonesia has complex disaster characteristics, because it is located on three active plates namely the Euro-Asia plate in the north, the Indo-Australia in the south and the Pacific plate in the east. The three active plates move and collide with each other, causing disaster-prone [20]. Disasters are complex things like natural eruptions, earthquakes, landslides and tornadoes, disasters can eliminate lives and property [21,22]. Disasters that often occur one of them is a flood. Floods are runoff of water that exceeds the height of normal water so that it overflows from the riverbed which causes inundation on low land on the river side [23]. Floods can be inundation on normally dry land such as on agricultural land, settlements, downtown. Floods can also occur because the volume of water flowing in a river or drainage channel exceeds or exceeds its drainage capacity [24].

Flooding is one of the common problems that often occurs in urban areas [25]. Women were the victims who died a lot in the event of a disaster than men, in the 2004 tsunami in Aceh because they were generally at home during the disaster, to work and care for children, as well as in the 2006 Yogyakarta earthquake more women died [26].

Women are seen as weak people and do not have any power when disaster strikes [27]. Gender-based roles make women more vulnerable to the effects of climate change. Global climate change is expected to create extreme weather in Indonesia including extreme rainfall and rising temperatures and sea levels. The role of women in the family basically has the nature of life as a mother, as a wife, as an individual woman, and as a member of the community this is a domestic duty as a woman. In addition to domestic roles women also play a role in the public sector where women help their husbands to fulfill their household economic needs by working. Disasters that occur cause women to work in the public sector because they are left behind by their husbands or other family members. Natural disasters have become a part of human life that comes unexpectedly when, where and how it occurs and becomes a non-military threat for each country [28].

Women in reducing the risk of flood disaster

Women come from the word *empu* which means valued [29]. Women have a dual role, domestic and public roles. The domestic role is where women act as wives, mothers and household managers [30]. The public role is where women participate actively in earning activities in various activities [31]. Women are a group of people who are always oppressed, do not have the power and effort to get out of the chains of oppression, they are not valued as men, especially those related to sexuality and economic productivity [32].

The occurrence of a series of floods in a relatively short time and repeated every year, requires greater efforts to anticipate it, so that losses can be minimized. Various governmental measures that are structural (structural approach), in fact have not been fully able to overcome the problem of flooding in Indonesia [33]. To improve readiness and reduce the risk of disasters that occur can be done by minimizing the vulnerability of women themselves by increasing preparedness. Factors that affect disaster preparedness are knowledge and attitudes towards disaster risk, policies and guidelines, plans for disaster emergencies, disaster warning systems [34]. Women have a strategic role in dealing with disasters so that the risks posed by disasters can be reduced through efforts to increase the role of women in disaster mitigation [35]. To improve women's ability to reduce disaster risk through improvement:

1. Women's awareness in understanding the environmental situation and the threat of danger.
2. Understanding of vulnerabilities and the ability to measure capacity owned by women.
3. Ability to assess the risks faced by women as individuals, family members and communities
4. Ability to plan and take actions to reduce risks that are owned both through capacity building and reducing vulnerability.
5. Women's ability to monitor, evaluate and ensure the sustainability of risk reduction efforts so that the impact of disasters can be reduced or prevented.

Mitigation is carried out in order to reduce losses due to the possibility of a disaster, whether in the form of casualties and or loss of property that will affect human life and activities. Not all potential natural hazards pose a risk of disaster. Events that have potential hazards occur in an area with a vulnerable condition, so the area is at risk of a disaster. So the risk is influenced by hazards and vulnerability factors, capacity can be considered as part of the vulnerability factor, which can reduce vulnerability if the capacity of the area is high [36]. The main mitigation that can be done by women in the emergency response phase is to save themselves and family members to evacuate in the post, the role of gender in the post-disaster period is to restore socio-economic conditions [37].

The role of women in disaster risk reduction is the main activity that can be done by women in the emergency response phase is to save themselves and family members to evacuate in the post. Based on the results of research interviews with Hamlet and Housewife Mothers, women's participation in reducing the risk of flooding that occurred in Kalianda Subdistrict women

participating or balancing in the Disaster Alert Village (Ksb) involved the role of women in the activities in the Disaster Alert Village. The activities carried out in the Disaster Preparedness Village are to conduct counseling and simulations when a disaster occurs, usually carried out on groups of family welfare fostering mothers (Pkk) wherein the groups are used to share knowledge about how to deal with floods and reinforce each other after they occur disaster. In addition to being active in the Disaster Alert Village, women are active in the Taruna Siaga Bencana (Tagana) organization, which is a social volunteer from the community who has a concern and is active in disaster relief in the field of social assistance. Following is a literature review to find out the comparison and authenticity of this study, the following are some of the results of previous studies that are relevant to this study.

The research entitled "The Role of Women in Dealing with Disasters in Indonesia" written by Hastuti, Department of Geography Education, Faculty of Social Sciences, Yogyakarta State University, was published in Geomedia Volume 14 Number 2 November 2016. The author examines the role of women in reducing disaster risk. Disasters hit by causing loss of property and even threatening the sustainability of life with casualties. Women are a vulnerable group in the event of a disaster. Efforts to overcome disasters continue to be studied through scientific studies, research, and regulations so that the negative impact of the disaster can be suppressed. The participation of women in dealing with disasters began to be realized in such an important way that women were expected to be able to participate in reducing disaster risk. Women began to be involved in disaster mitigation ranging from recovery, rehabilitation, to post-disaster reconstruction. Increasing the role of women in dealing with disasters is done through education, training so that women have the knowledge and awareness, and skills of women when facing disasters. The negative impact when a disaster occurs is expected to be suppressed through increasing the role of women in dealing with disasters.

"Women's Participation in Disaster Management in Pagerharjo Village, Samigaluh District, Kulonprogo Regency" written by Anisa Eka Puspitasari, Titis Puspita Dewi, and Dina Ruslanjari, Gadjah Mada University, who published the 5th Pit Proceedings of Iabi Disaster Research Andalas University, Padang 2-4 May 2018. The author examines women's participation in disaster management in Pagerharjo Village. The method used is descriptive qualitative analysis of gender CVA (Capacities and Vulnerabilities Analysis). The results of this study were the participation of women in disaster management efforts such as women's participation in the KSB (Disaster Preparedness Group) team, in their voluntary work to make dikes to reduce landslides, and their participation in landslides. Involvement has not been carried out thoroughly and there are still many women who have not participated because there is still gender inequality. Women's participation is at least sufficient to show that women have capacity in disaster management.

4. Conclusion and Recommendation

The results of the study show that the role of women in the face of flood risk shows that women have a dominant role in reducing the risk of floods, women's participation in Disaster Alert Villages (Ksb) and Disaster Preparedness (Tagana) in the face of flood risk. reduce casualties during a disaster. The active participation of women in the disaster alert and tagana village activities is expected not to be seen as a weaker person in the event of a disaster so that female victims who die during a disaster are reduced. Efforts to reduce disaster risk are reviewed continuously so that when a disaster strikes there are not too many female victims who die. For further research, it is recommended to study more about the role of women in reducing and managing disasters, considering that Indonesia is a country prone to natural disasters.

Acknowledgments

The author would like to thank the Department of Education Geography for Postgraduate Education at Yogyakarta State University, which has facilitated research activities and the author

would like to thank Dr. Hastuti, M.Sc as thesis supervisor and all those who have helped in the preparation of this writing.

References

- [1] Nur A M 2010 Gempa Bumi Tsunami dan Mitigasinya *Jurnal Geografi* Universitas Negeri Semarang **7** 1-73
- [2] Bakar A A 2017 Kajian Potensi Tsunami pada Daerah Celah Kegempaan Sebagai Alternatif Pengelolaan Pesisir Berbasis Bencana Tsunami (Kasus Celah Kegempaan di Wilayah Sulawesi dan Maluku) *Tesis* Fakultas Geografi Universitas Gajah Mada, Yogyakarta
- [3] Zakaria Z 2008 Identifikasi Kebencanaan Geologi Kabupaten Cianjur Jawa Barat *Bulletin of Scientific Contribution* **6** 44-58
- [4] Nurhadi et al 2018 Strategi Penghidupan Masyarakat Pasca Erupsi 2010 Kaitannya Dengan Kesiapsiagaan Menghadapi Bencana Berikutnya *Majalah Geografi Indonesia* **32** 1-114
- [5] Hastuti 2016 Peran Perempuan Dalam Menghadapi Bencana Di Indonesia *Geomedia* **14** 1-115
- [6] Khattri P 2017 Rural Livelihoods and Natural Disasters Observations from Flood Affected Bahraich District of Uttar Pradesh *Indian Anthropologist* **47** 17-33
- [7] McEntire D A 2001 Triggering agents vulnerabilities and disaster reduction: towards a holistic paradigm” *Disaster Prevention and Management* **10** 189-96
- [8] Republik Indonesia 2007 *Undang-undang RI Nomor 24 Tahun 2007, Tentang Penanggulangan Bencana*
- [9] Hamsah 2018 Prioritas Penanggulangan Bencana dalam Menghadapi Bencana Tsunami Berbasis Kapasitas Masyarakat Kecamatan Galur Kabupaten Kulonprogo *Tesis* Sekolah Pascasarjana Universitas Gajah Mada Yogyakarta
- [10] Fatoni Z and Widayatun 2013 Permasalahan Kesehatan dalam Kondisi Bencana: Peran Petugas Kesehatan Dan Partisipasi Masyarakat *Jurnal Kependudukan Indonesia* **8** 1-63
- [11] Fujiawati F S and Mudmainah V 2018 Peningkatan Peran Wanita Terhadap Penanggulangan Bencana Banjir di Kawasan Rawan Bencana Banjir Kabupaten Serang *Jurnal GeoEco* **4** 1-99
- [12] Pamungkas A and Adhe R R 2014 Faktor-Faktor Kerentanan yang Berpengaruh Terhadap Bencana Banjir di Kecamatan Manggala Kota Makassar *Jurnal Teknik Pomits* **3** 157-233
- [13] Findayani A 2015 Kesiap Siagaan Masyarakat Dalam Penanggulangan Banjir di Kota Semarang *Jurnal Geografi* **12** 1-114
- [14] Santoso E B 2013 Manajemen Risiko Bencana Banjir Kali Lamong Pada Kawasan Peri-Urban Surabaya-Gresik Melalui Pendekatan Kelembagaan *Jurnal Penataan Ruang* **8** 48-59
- [15] Hikmawati E 2012 Penanganan Dampak Sosial Psikologis Korban Bencana Merapi *Informasi* **17** 97-110
- [16] Plumper T and Eric N 2007 The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy 1981-2002 *Annals of the Association of American Geographers* **97** 551-566
- [17] Ginige k, Dilanthi A and Richard H 2009 Mainstreaming gender in disaster reduction: why and how *Disaster Prevention and Management* **18** 9-77
- [18] Lourdes M and Enarson E 2004 International Perspectives on Gender and Disaster: Differences and Possibilities *The International Journal of Sociology and Social Policy* **24** 49-93
- [19] Handayani L B 2015 Jaringan kelompok perempuan dalam manajemen bencana di desa kemiri, pati, jember *Jurnal Entitas Sosiologi* **11** 1-70
- [20] Buchori I and Marburno H 2013 Model spasial kerentanan sosial ekonomi dan kelembagaan terhadap bencana gunung merapi *Jurnal Teknik PWK* **2** 1-10
- [21] Lippmann A L 2011 Disaster Preparedness In Vulnerable Communities *International Law and Policy Review* **1** 69-96
- [22] Shaluf I M 2007 An overview on disasters, Disaster Prevention and Management: An *International Journal* **16** 687-703

- [23] Nurdjanah 2012 *Manajemen bencana* Bandung: Alfabeta
- [24] Rosyidie A 2013 Banjir Fakta dan Dampaknya, Serta Pengaruh dari Perubahan Guna Lahan. *Jurnal Perencanaan Wilayah dan Kota* **24** 241-249
- [25] Sariffuddin and Rizsa P D 2015 Tingkat Kerentanan Masyarakat Terhadap Bencana Banjir Di Perumnas Tlogosari Kota Semarang *Jurnal Pengembangan Kota* **3** 90–99
- [26] Murtakhamah T 2013 Pentingnya Pengarusutamaan Gender Dalam Program Pengurangan Risiko Bencana *Jurnal Ilmu Kesejahteraan Sosial* **2** 38-54
- [27] Susilowati F 2016 Peningkatan Kapasitas Masyarakat Dalam Menghadapi Risiko Bencana Berbasis Gender *Jurnal Semar* **5** 1-49
- [28] Sujanto B A 2017 Efektivitas Peran Relawan Penanggulangan Bencana Pada Tanggap Darurat Banjir Jakarta Timur Dalam Rangka Penyelamatan Korban Manusia (Studi Di Kelurahan Kampung Melayu Tahun 2014 *Jurnal Prodi Manajemen Bencana* **3** 1-50
- [29] Subhan Z 2004 *Kekerasan terhadap perempuan* Yogyakarta: Pustaka Pesantren
- [30] Wibowo D E 2011 Peran Ganda Perempuan dan Kesenjangan Gender *Muwazah* **3** 325-410
- [31] Hidayati N 2015 Beban Ganda Perempuan Bekerja (Antara Domestik dan Publik). *Muwazah* **7** 93-210
- [32] Nasif F U 2001 *Menggugat Sejarah Perempuan Mewujudkan Idealisme gender sesuai Tuntutan Islam*, terjemahan oleh Burhan Wirasubrata dan Kundan D. Nuryakien, dari *Women in Islam; A Discourse in Rights and Obligations*. Jakarta: CV. Cendikia Sentra
- [33] Umar N 2013 Pengetahuan dan Kesiapsiagaan Masyarakat Menghadapi Bencana Banjir Di Bolapapu Kecamatan Kulawi Sigi Sulawesi Tengah *Jurnal Keperawatan Soedirman* (The Soedirman Journal of Nursing) **8** 1-192
- [34] LIPI and UNESCO 2006 Pengembangan framework untuk mengukur kesiapsiagaan masyarakat terhadap bencana alam. Dikutip tanggal 28 September 2011, dari <http://Repository.upi.edu.com>.
- [35] Hastuti 2016 Peran Perempuan Dalam Menghadapi Bencana Di Indonesia *Geomedia* **14** 1-115
- [36] Sadisun I A 2007 *Smart Sop Dalam Mitigasi Dan Penanganan Bencana Alam*. Pusat Mitigasi Bencana – Institut Teknologi Bandung (PMB ITB).
- [37] Permana R S Dina, R., & Dian, I., W. (2017). Peran Gender Pada Siklus Manajemen Bencana Di Sektor Sosial Ekonomi Rumah Tangga Tani (Bencana Alam Gempabumi Dan Letusan Gunungapi) *Kawistara* **7** 1-111