

DISASTER RESILIENCE AND RELIEF STANDARDS FOR AFFECTED FAMILIES IN MARAWI CITY

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ABSTRACT

Aim: The study sought to establish a link between disaster resilience evaluation and relief standards for affected families. Specifically, it sought to determine the profiles of the respondents in terms of age, gender, role in the family, and highest educational attainment; determine the perceived level of disaster resilience; and determine the perceived standards of relief that address basic needs in terms of food and nutrition; shelter; clothing; and personal needs.

Methodology: A descriptive research design was used to investigate and determine the perceived level of disaster resilience; and determine the perceived standards of relief that address basic needs in terms of food and nutrition; shelter; clothing; and personal needs.

The four hundred twenty-four (424) respondents were randomly selected to be the participants of this study among the families who are living in IDP's camps in the city of Marawi.

Results: The results revealed that the majority of the respondents were 40–49 years old, female, mothers, and had a bachelor's degree. The respondents are resilient and are slightly satisfied with the standard of relief.

Conclusion: However, it was concluded that the government and other agencies in charge of the distribution of relief to the affected families provide the necessary standards and necessary relief goods that will meet the demand of the affected families and that the government also selects among the victims to be part of the distribution teams.

Keywords: Affected families, disaster, evaluation, resilience, relief standards, Marawi city

INTRODUCTION

Major hazards such as hurricanes, earthquakes, volcano eruptions, droughts, and landslides, among others, constantly threaten the lives and livelihoods of the most vulnerable populations across the world. A disaster event can be defined as a serious disruption of the functioning of a community or society involving widespread human, material, economic, or environmental losses and impacts that exceed the ability of the affected community or society to cope using its own resources [1,2].

Disaster events have an impact on the quality of life of individuals and families. The concept of responding to disasters has traditionally been seen as a compassionate response to people in need [3]. However, the problems that are often encountered by persons affected by natural disasters include unequal access to assistance, discrimination in aid provision, enforced relocation, sexual and gender-based violence, loss of documentation, recruitment of children into fighting forces, unsafe or involuntary return or resettlement, and issues of property restitution [4].

Although there is considerable discussion within the human rights community about prioritizing certain rights, it is generally accepted that the first priority is to protect life, personal security, and the physical integrity and dignity of affected populations by: carrying out evacuations and relocations when necessary in order to protect

lives; protecting populations against the negative impacts of natural hazards; protecting populations against violence, including gender-based violence; providing security in camps when these are necessary; and protecting people against anti-personnel landmines and other explosive devices [5].

Natural catastrophes have occasionally struck areas where armed conflict has already damaged people's lives, including Iraq, Somalia, Kenya, Colombia, Haiti, and the Philippines. Conflict-damaged states and social systems are less likely to be able to respond to the effects of a natural hazard, increasing the likelihood that a natural disaster will occur. This is because the definition of a natural catastrophe is connected to a society's ability to respond [6]. For instance, due to a protracted struggle, the Somali government is incredibly weak and only controls a small portion of the capital city. As a result, it is unable to respond to the country's recent flooding or drought. It is more likely that the state and community institutions in Somalia would be better equipped to handle the environmental dangers, maybe preventing disasters altogether, if there were no violence there [7].

Other economic, social, and cultural rights, such as protection of education, property and possessions, housing, means of subsistence, and employment, are included in the second category of rights. This category also includes humanitarian assistance, access to goods and services, and provision of adequate food, shelter, clothing, and health services [8].

Furthermore, the siege of Marawi City, which started in May and exposed the Philippine military's shortcomings as well as the possibility of a long-term security threat to the Philippines and its neighbors, is the most significant terrorist event to have occurred in Southeast Asia in the previous 15 years [9; 10;11]. Blog has revealed that, since fighting began in Marawi on May 23, hundreds of military troops, civilians, and Islamist terrorists have perished. The clashes also led to the relocation of over 200,000 families.

The problems experienced by those displaced or otherwise affected by conflicts in Marawi City may be similar to those mentioned above. Thus, the researchers aim to investigate and conduct the study to assess and determine the perceived level of resilience and the standard of relief provided to disaster-affected families in Marawi City.

METHODOLOGY

A descriptive research design was used to investigate and determine the perceived level of disaster resilience; and determine the perceived standards of relief that address basic needs in terms of food and nutrition; shelter; clothing; and personal needs.

The four hundred twenty-four (424) respondents were randomly selected to be the participants of this study among the families who are living in IDP's camps in the city of Marawi. The modified and researcher-made questionnaire was used in the study and was divided into parts:

Part I was the demographic profile of the respondents in terms of age, gender, role in the family, and highest educational attainment.

Part II was the Resilient Quotient (RQ) of Russell (2007), with 32 statements of beliefs that deal with perception and interaction with the environment and others; using the 4-point scale such as 1-disagree, 2-slightly disagree, 3-slightly agree, and 4-agree, the instrument was not translated into Maranao. For the interpretation of the RQ score, the researcher categorized the responses of the respondents into eight (8) RQ dimensions such as self-assurance, personal vision, flexibility and adaptability, organization, problem solving, interpersonal competence, social connection, and proactiveness. After which, the researchers tallied the scores of the items, which were calculated and interpreted.

Part III was a researcher-made questionnaire about the perceived standard of relief that addresses basic needs such as food and nutrition, shelter, clothing, and personal needs. Every indicator had seven (7) statements—measurable using the 4-point Likert scale: 1 as not at all observed, 2 as not enough, 3 as not enough, and 4 as more than enough.

A pilot test was given to 25 participants, including 11 dads, 10 moms, and 4 kids. The 28-item survey's full analysis showed a very high reliability of Cronbach's alpha at $\alpha = 0.891$. To get the precise number of IDPs, the researchers sought authorization from Marawi City's local government through the mayor and cooperated with representatives of the city's social welfare and development and disaster risk reduction management councils.

The responders were physically given the surveys. The survey participants had ample time to ensure that their responses to the questions were accurate. The researchers collected and tallied the questionnaire responses before doing the analysis of the findings. The gathered data were analyzed using frequency and percentages for the demographic profile of the respondents and level of resilience using Likert scale

RESULTS

Results of this study showed that most of the respondents were within the age of 40 – 99 years (28.50%), and of the female 256 (60.40%). The majority of the respondent’s role in the family were mother 170 (40.10), and had bachelor degree education (30.90%) (Table 1).

Table 1. The Distribution of respondents by age, gender, role in the family and HEA.

PROFILE	FREQUENCY (n = 424)	PERCENTAGE (100)
Age		
60 yrs old and above	17	4.00
50 – 59 yrs old	59	13.90
40 – 49	121	28.50
30 – 39	89	21.00
19 – 29	65	15.30
18 years old and below	72	17.00
Gender		
Male	168	39.60
Female	256	60.40
Role in the Family		
Father	123	29.00
Mother	170	40.10
Elder Brother	34	8.00
Elder Sister	62	14.60
Youngest	35	8.30
Highest Educational Attainment		
PhD/EdD	1	0.20
MA graduate with PhD units	3	0.70
MA Degree	17	4.00
Bachelor’s degree with MA units	17	4.00
Bachelor’s Degree	131	30.90
Vocational Course	35	8.30
High School Graduate	127	30.00
Elementary Graduate	90	21.20
Elementary Level	3	0.70

Results also indicated that the respondents' level of Resilient Quotient on disaster generated an overall mean score of 210 (49.50%), which is interpreted as "Resilient (Table 2)

Table 2. Level of Resilient Quotient on disaster

RESILIENCE QUOTIENT	LEVEL								TOTAL
	Not Resilient		Somewhat Resilient		Resilient		Very Resilient		
	N	%	N	%	n	%	N	%	
Self-Assurance	8	1.9	47	11.1	133	31.3	236	55.7	424
Personal Vision	11	2.6	34	8.0	116	27.4	263	62.0	424
Flexible and Adaptable	8	1.9	44	10.4	174	41.0	198	46.7	424
Organized	7	1.7	40	9.4	202	47.6	175	41.3	424
Problem Solver	4	0.9	58	13.7	183	43.2	179	42.2	424
Interpersonal Competence	4	0.9	65	15.3	180	42.5	175	41.3	424
Socially Connected	3	0.7	55	13.0	202	47.6	164	38.7	424
Proactive	8	1.9	40	9.4	160	37.7	216	51.0	424
Overall Resilience Quotient	6	1.4	49	11.6	210	49.5	159	37.5	424

Additionally, concerning the perceived standards of relief to disaster affected families, revealed an overall mean score of 2.45 was obtained, which is interpreted as " Slightly Satisfied" (Table 3).

Table 3. Level of perceived standards of relief to disaster affected families

Food and Nutrition	MEAN	DESCRIPTION
1. The food is readily available and nutritious for family consumption.	2.49	Slightly Satisfied
2. The food packs are easy to prepare.	2.71	Satisfied
3. Foods for children are also available.	2.36	Slightly Satisfied
4. There is a sufficient supply of nutritious foods.	2.36	Slightly Satisfied
5. Storage of foods is safe and protected.	2.59	Satisfied
6. There are varieties of foods for the IDP's.	2.33	Slightly Satisfied
7. The distribution of food packs done at a regular basis.	2.31	Slightly Satisfied
Over-all Rating	2.45	Slightly Satisfied

DISCUSSIONS

Results of this study showed that most of the respondents were within the age of 40 – 99 years (28.50%), and of the female 256 (60.40%). The majority of the respondent’s role in the family were mother 170 (40.10), and had bachelor degree education (30.90%). This indicates that most of the affected families were in their 40s.

According to Erickson’s Stages of Development, adults in their 40s tend to find meaning in their work. They feel like, at this point in their lives, they should be able to contribute something meaningful to society and leave a legacy [12].

More so, being educated is paramount to everyone in society because we need to know what we need and where to get it at the right time. According to the study of [13], every parent who finishes college degrees will be able to identify their problems easily and look for solutions to them. This implied that the respondents to the study were educated enough to know when the government and people in authority cater to their needs.

The overall resilience quotient of the respondents is 210 (49.5%) of the total population. This means that most of the time, many of the affected families are able to deal with the change in a positive manner and have a number of mechanisms in place that help deal with the uncertainty of change. The result substantiates the study of [14], the concept of resilience is closely related with the capability and ability of an element to return to a stable state after a disruption and is related to both the individual and organizational responses to turbulence and discontinuities [15].

However, among the others, being organized and socially connected had the largest percentages of 202 (47.60%) and 202, respectively, which are thankfully still classed as "resilient," indicating that the respondents to this

survey were varied and lived in a constantly changing and unpredictable environment. In order to deal with the emergency and recover from the interruption, they find themselves establishing a competence. We all experience trauma, hardship, and other pressures, according to [16], which supports this conclusion. There is always a plan for adjusting to drastically altering circumstances and coming out even better. The resilience quotient will help us see this as a shared ability that enables people, groups, or communities to avoid, lessen, or survive times of hardship.

Most people will have good ways of adapting to resilient quotient which was also revealed by the respondents of the study by personal vision 263 (62.00%), followed by self-assurance 236 (55.70%) which was rated “very resilient”. According to [17] being resilient helps promote social and emotional wellbeing. Everyone encounters challenges, and everyone has a degree of resilience. resilience as the amount of risk that the household can absorb and still be able to self-organize (adaptive capacity) for preparing, planning, and implementing technical measures before, during, and after a disaster [18].

Results further indicated that the affected families are satisfied to the foods received as easy to prepare, safe and protected however, slightly satisfied on the distribution of food packs. The result agrees on the article of Humanitarian Coalition (n.d.) which render assistance to people in need regardless of the situations not only in area of delivering food to affected populations, but also ensuring that the food that is provided is nutritionally appropriate, addresses context-specific problems, and meets minimum energy, protein and fat requirements for survival and light physical activity.

This suggests that even though there is now a greater emphasis on how emergency programs can be created to support many households and governments in more efficient and long-lasting ways, efforts should still be made to communicate with those who have been impacted by disasters and explain how disaster risk reduction, preparedness, and prevention measures can be better incorporated into development policies and programs. The expanding number of nations and partners joining the Scaling Up Nutrition program is evidence that nutrition has gained more prominence concurrently [19].

This result was consistent with the findings of [20], which showed that the food packs provided during disasters varied in their adequacy at different levels, with the provincial government's rations being the most adequate in terms of meeting PDRI recommendations for energy, vitamin A, and iron for various age groups. Food packages distributed at the neighborhood and local levels in the municipal system were insufficient to fulfill the REI and RNI for vitamin A and iron for populations reliant only on food assistance.

[21] highlighted that it is not always simple to distribute food rations equitably among impacted persons or among other members of a family. However, food distribution patterns within households can vary, meaning that some groups or people may get food first or receive a larger share of food as a result of their relative size in the family. Despite the fact that the respondents were happy with their food packets, there is no assurance that they will be adequate for each person.

CONCLUSIONS

Based on the study's enumerated findings, we draw the conclusion that the government and other agencies in charge of the distribution of relief to the affected families provide the necessary standards and necessary relief goods that will meet the demand of the affected families. The government also selects among the victims to be part of the distribution team, this will help in adequate equally distribution to entire victims. To also, adapt disaster management strategies from both national and international perspectives to develop a food and nutrient distribution system that will quickly assist communities that have successfully evacuated ahead of a disaster. From this point on, everyone—not just those who have been impacted by such situations—should focus on building their resilience. Given that the situation is temporary, it is advised that people receive training on how to develop resilience in their daily lives. Additionally, to work with national and local authorities on important initiatives, to associate with pertinent institutions and groups, and, if none already exist, to set up a coordinating group, locate resources for supplies and send skilled employees to distribute them to disaster-affected families.

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REFERENCES

- UN/ISDR (UN/International Strategy for Disaster Reduction). (2009). *UNISDR Terminology on Disaster Risk Reduction*; United Nations: Geneva, Switzerland.
- Chaudhary, T. M., & Piracha, A. (2021). Natural disasters—Origins, impacts, management. *Encyclopedia* 2021, 1(4), 1101-1131. <https://doi.org/10.3390/encyclopedia1040084>
- Smith, K. (2013). *Environmental Hazards: Assessing Risk and Reducing Disaster*, (6th ed.), Routledge: Oxford.
- Ferris, E. (2010). Natural disasters, conflict, and human rights: Tracing the connections. <https://www.brookings.edu/on-the-record/natural-disasters-conflict-and-human-rights-tracing-the-connections/>
- McAdam, J., & Ferris, E. (2015). Planned relocations in the context of climate change: Unpacking the legal and conceptual issues. *Cambridge Journal of International and Comparative Law*. 4(1), 137- 166. <https://doi.org/10.7574/cjicl.04.01.137>
- Peters, K. (n.d). When disasters and conflict collide. <https://odi.org/en/about/features/when-disasters-and-conflict-collide/>
- Ono, A. (2015). *How do natural disasters affect the economy?* World Economic Forum. <https://www.weforum.org/agenda/2015/02/how-do-natural-disasters-affect-the-economy/>
- Food Security Information Network. (2019). *Global report on food crises 2019*. <https://www.wfp.org/publications/2019-global-report-food-crises>
- Fonbuena, C. (2017). Marawi: where military rules and LGUs take a back-seat', Rappler. <https://www.rappler.com/nation/177416-martial-law-marawi-military-local-government/>
- Knight, C., & Theodorakis, K. (2018). The Marawi crisis: urban conflict and information operations. <https://www.aspi.org.au/report/marawi-crisis-urban-conflict-and-information-operations#>
- Amnesty International (AI). (2017). The Marawi crisis—urban conflict and information operations. <https://www.refworld.org/pdfid/5a0e99724.pdf>
- Erik Erikson's Stages of Psychosocial Development. (2019). <https://www.psychologynotes.com/erikson-stages/>
- Horowitz, J. (2018). Relative Education and the Advantage of a College Degree. *Am Sociol Rev.*83(4):771-801. doi: 10.1177/0003122418785371.
- Bhamra, R., Dani, S., & Burnard, K. (2011). Resilience: the concept, a literature review and future directions. *International Journal of Production Research*, 49(18), 5375-5393.
- XIAO, L., & Huan, C. (2017). Organizational Resilience: The Theoretical Model and Research Implication. *ITM Web Conf.* 12, 4;04021. <https://doi.org/10.1051/itmconf/20171204021>
- American Psychological Association (APA). (2020). Building your resilience. <https://www.apa.org/topics/resilience/building-your-resilience>
- Leahy, T. (2012). How Teachers Develop and Sustain Resilience in Their Work. Dissertation Paper. <https://core.ac.uk/download/pdf/111071592.pdf>
- UNDRR. (n. d). Disaster risk reduction & disaster risk management. <https://www.preventionweb.net/understanding-disaster-risk/key-concepts/disaster-risk-reduction-disaster-risk-management>
- FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO-UN). (2014).

Strengthening the links between resilience and nutrition in food and agriculture.
<https://www.fao.org/3/i3777e/I3777E.pdf>

Gomez, G. k., & Ignacio, S. Ma. (2020). Adequacy of Food Aid Packs Provided during Natural Disasters: A Provincial Case Study. *Acta Medica Philippina*. 54(5), 472- 478.

Pan American Health Organization (PAHO). (n. d). Food and Nutrition in Disasters.
<https://www.paho.org/en/health-emergencies/food-and-nutrition-disasters>