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Disaster Preparedness Among Residents of Ilocos Sur

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ABSTRACT

This study determined the Disaster Preparedness of residents of Ilocos Sur, particularly in disaster-prone areas like the municipality of Bantay, Cabugao, Candon, Caoayan, Santa, and Sta. Cruz. The study made use of the descriptive-correlational method of research. Using the G power, a sample of 193 was chosen through purposive sampling. Results show that a great percentage of respondents are young, non-skilled workers, college graduates, have a meager income, live in a nuclear family, and are members of CARD Inc./PAGASA. The majority live in flood-prone areas, are female, married, and have no training or seminar. A great majority owned a permanent house. Different agencies support them with programs related to disaster preparedness. The respondents are knowledgeable and practice disaster preparedness and environment and personal practices. There is a significant relationship between the socio-demographic profile and the extent of practices on disaster preparedness along with environmental and personal practices but with an inverse relationship between sex and civil status. Knowledge of disaster is significantly related to the extent of disaster preparedness. It is recommended that the Provincial Disaster Risk Reduction Management Council, Local Government Units, and Non-Government Organizations should conduct regular training seminars and updates related to disaster preparedness for the Community, especially housewives for they usually left at home to man the house. The Academe should integrate disaster preparedness into the curriculum.

Keywords: *Disaster, disaster preparedness, practices, support, knowledge*

INTRODUCTION

Disaster is one of the most severe problems worldwide, which may be due to climate change, ignorance, and negligence in caring for the environment as the world embraces industrialization and development. Disasters are natural or man-made emergencies that cannot be handled by affected communities, which may experience severe danger and loss of lives and properties.

The Disaster Risk Reduction Manual (2008) states that the effects of disasters can disrupt the Community's social structure, thus, preventing the fulfillment of all or some of the affected Community's essential functions. Disaster Preparedness is a state in which individuals, groups, and communities have developed plans, allocated resources, and established procedures for an efficient and effective implementation of the plans to save lives and prevent further damage to property in the event of a

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disaster. Preparedness includes plans or preparations to save lives and help response and rescue operations. Evacuation plans and stocking of food and water are both examples of preparedness.

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The United Nations University's Institute for Environment and Human Security released its 2017 World Risk Report, which indicates "the risk of disaster in consequence of extreme natural events" in 171 countries worldwide. This year, the Philippines ranks third on the index, behind Vanuatu and Tonga. It's the country's third year in a row placed in the third rank after moving down from second place in 2015.

The Philippines stands as one of the most disaster-prone areas in the world. According to the Emergency Events Database (EM-DAT) data1, the Republic of the Philippines recorded 531 disaster events with 60,059 fatalities and roughly 10.5 billion (USD) in damages. These disaster events affected around 160 million people from 1900-2012. In 2013 alone, the Research on the Epidemiology of Disasters (CRED) recorded 16 disasters, 8,382 people reported killed, some 23,367,431 affected, and an approximate damage of (USD) 1.1 billion. Storm and typhoon-related events account for a significant number of deaths, people involved, and losses in assets. However, the Philippines experiences other geological, hydrometeorological, and human-induced hazards that contribute to the disasters. (NDRRMC National Disaster Preparedness Plan 2015).

In October 2016, Ilocos Sur was declared under a state of calamity after super typhoon "Lawin" hit northern Luzon. The total damage in the province was around P600 million. Of this amount, P324 million are agricultural damages, while P313 million are damages to infrastructure, including two major bridges, as reported by the Provincial Disaster Risk Reduction Management Council. A total of 42,530 individuals were affected. ABS CBN News. (2016. October 24). *Ilocos Sur Now Under State of Calamity.* It also caused shoreline erosion and the collapse of a seawall that threatened the safety of Barangay Pasungol in Santa Ilocos Sur. One house collapsed due to erosion. Fortunately, it was abandoned, and no casualties were reported. The Municipal Disaster Risk Reduction Management Council of Santa Ilocos Sur (MDRRMC) promised to monitor conditions in the area to bring residents to safety when needed. Part of a seawall being constructed in the area was destroyed by big waves caused by the southwest monsoon or “habagat", Galiste, R. (2016, August 17).

For this reason, the researchers conducted this study to determine the level of disaster preparedness among the residents of Ilocos Sur, considering that many of its municipalities are deemed vulnerable to disasters. The result of the study will serve as

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an eye opener for the different communities to start reinforcing their knowledge and strengthening their approach and practices in reducing the negative consequences and impact of disasters. Likewise, it will also serve as insight for government officials in modifying their plans, policies, and programs in disaster management. Lastly, the Academe may utilize the study results to base its curriculum on disaster education and disaster-related student training programs.

The researchers aimed to determine the level of knowledge on disaster and the extent of disaster preparedness among residents of Ilocos Sur. Specifically, it tried to determine the socio-demographic profile and the extent of support given by the government and non-government organizations before a disaster. The level of knowledge on disasters along typhoons, floods, earthquakes, and landslides. The extent of practice on disaster preparedness among the respondents related to environment and personal. It looked into the relationship between the level of knowledge on disasters and their socio-demographic profile, the relationship between the socio-demographic profile, the extent of practice on disaster preparedness, and personal and environmental practices. It also looked into the relationship between the level of knowledge on disaster and the extent of practices on disaster preparedness.

METHODOLOGY

The descriptive-correlational determined the relationship between the dependent and independent variables (David et al. 2020). The 193 respondents were the residents of Ilocos Sur, particularly in disaster-prone areas like the municipality of Bantay, Cabugao, Candon, Caoayan, Santa, and Sta. Cruz represents the coastal, mountainous, and low-lying areas. G Power was used to determine the sample size, while the respondents were chosen through purposive sampling. The researchers formulated the questionnaire checklist. It was content- validated by the Provincial Disaster Risk Reduction Officers of Ilocos Sur and Bureau of Fire Protection Senior Officers of the different Municipalities of Ilocos Sur. The researchers sought permission from the Municipal Mayor and Barangay Captains to float the questionnaires. The statistical tools used to treat and interpret the data were frequency and percentage, mean, and simple linear correlation analysis.

Ethical Considerations

There is no conflict of interest in the conduct of the study because the researchers were Clinical Instructors of the Community Health Program and only intended to determine the disaster preparedness of the community residents. The researchers ensured principles of privacy and confidentiality, and all the information gathered from the respondents will not be divulged to anyone. Before the study, approval of the written request for permission to conduct the study from the Municipal Mayor and Barangay Captains was sought. Adequate information was presented and explained to the respondents within their level of understanding, that their

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participation is voluntary, that they can withdraw anytime, and have the right to refuse if questions are too sensitive. The researchers assured the safety of the respondents from social, behavioral, and psychological harm as may be caused by the questions asked of them during the conduct of the study. The researchers also assured that the respondents' rights, dignity, and autonomy would be respected. The Local Government Units and the respondents benefited from the study because the result of the study may create awareness of disaster preparedness, and this would convince the community to attend training and seminars on disaster preparedness and management. It also served as a source of information to the Local Government in assessing the readiness of the Community for different types of disasters that served as their basis for improving their programs in disaster management.

RESULTS AND DISCUSSION

On Socio-demographic Profile of the Respondents

A great percentage of the respondents are 18-27 years old; the majority are female, married, non-skilled workers with a monthly family income of 5,001 – 10,000, college graduates, and living in a nuclear family . A great majority of them owned a permanent house, lived in a flood-prone area with no attendance to training activities, and were members of CARD/PAGASA (lending Institution).

Table 1

The extent of support from the government and non-government organizations

Items	$\bar{x}$	DR
Training programs:	3.40	Fair
Electrical Inspection	3.52	High
Infrastructural Assessment	3.47	High
Forecast or Warnings	4.17	Very High
Overall	**3.64**	**High**

Norms for interpretation:

Items		DR	Overall DR
4.21 - 5.0	-	Always (A)	Very High (VH)
3.41 - 4.20	-	Often (O)	High (H)
2.61 - 3.40	-	Sometimes (So)	Fair (F)
1.81 - 2.60	-	Seldom (Se)	Low (L)
1.00 - 1.80	-	Never (N)	Very Low (VL)

Overall, the extent of support from the Government and Non-Government Organizations is "High with a grand mean of ($\bar{x}$=3.64). This implies that the government nowadays is serious about enforcing their plans and programs in disaster prevention by mandating and involving the LGUs, NGOs, and other government agencies like the PDRRMO, BFP, PAGASA, ISECO, DPWH, and other agencies in the implementation of disaster mitigation and preparedness programs. But on, the extent of support of Government and Non-Government Organizations under training programs has an

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overall mean rating of "Fair" ($\bar{x}$=3.40). This is because most respondents are housewives and have no time to attend disaster preparedness training as they are expected to take care of their children and do household work.

According to Republic Act No. 10121, "The Philippine Disaster Risk Reduction and Management Act of 2010", An Act Strengthening the Philippine Disaster Risk Reduction and Management System, providing for the National Disaster Risk Reduction and Management Framework and institutionalizing the National Disaster Risk Reduction and Management Plan, Appropriating funds therefore and for other purposes. Section 4 of this Act provides for the development of policies and plans and the implementation of actions and measures on all aspects of disaster risk reduction and management, including good governance, risk assessment and early warning, knowledge building, and awareness raising, reducing underlying risk factors, and preparedness for effective response and early recovery. Develop vertical and horizontal coordination mechanisms for a more coherent implementation of disaster risk reduction and management policies and programs by sectoral agencies and LGUs, thus increasing their capacity to provide disaster preparedness programs to lessen the disaster's impact in our country.

Table 2
Level of knowledge of the respondents on disasters

Items	$\bar{x}$	DR
Typhoons	73.27	High
Floods	72.66	High
Earthquakes	76.86	High
Landslides	86.77	Very High
As a whole	**77.39**	**High**

Norms for interpretation:

Range	Descriptive Rating
81-100	Very High (VH)
61-80	High (H)
41-60	Fair (F)
21-40	Low (L)
01-20	Very Low (VL)

As a whole, the respondents have a "High" level of knowledge ($\bar{x}$=77.39) on disasters, particularly typhoons, floods, earthquakes, and landslides. This shows that the LGU's NGOs and other government agencies are doing their part in the implementation of their programs following the National Disaster Preparedness Plan (NDPP) to increase the level of awareness and enhance the capacity of communities to anticipate, avoid, reduce, and survive the threats and impacts of all hazards, and develop a fully-equipped community with the necessary skills and capability to face and survive dangers and cope with the effects of disasters. (National Disaster Preparedness Plan 2015-2028 Vol.1).

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Table 3

The extent of Practices on Disaster Preparedness of the Respondents Along the Environment Practices

Items	$\bar{x}$	DR
Typhoons	4.14	High
Floods	4.07	High
Earthquakes	4.08	High
Landslides	4.10	High
As a whole	**4.10**	**High**

Norms for interpretation:

Items		DR	Overall DR
4.21 - 5.0	-	Always (A)	Very High (VH)
3.41 - 4.20	-	Often (O)	High (H)
2.61 - 3.40	-	Sometimes (So)	Fair (F)
1.81 - 2.60	-	Seldom (Se)	Low (L)
1.00 - 1.80	-	Never (N)	Very Low (VL)

As a whole, the data shows that the respondents obtained a "High" extent of practices on disaster preparedness (X=4.10) along the environment in terms of typhoons, floods, earthquakes, and landslides. This indicates that the respondents are practicing what they've learned in their education, information dissemination campaigns through pamphlets or brochures on disaster preparedness, radios, televisions, and other forms of social media sponsored by LGUs, NGOs, Academe, and different implementing agencies. Likewise, this could also be attributed to their past experiences from previous disasters they encountered. This can be achieved through Information, Education, Campaigns, Capacity Building, Disaster Risk Reduction Management Localization, Risk Assessments and Plans, Preparedness for Emergency and Disaster Response, Continuity of Essential Services, and Partnerships. (National Disaster Preparedness Plan 2015-2028 Vol.1)

Table 4

The extent of practices on disaster preparedness of the respondents related to their personal practices

Items	$\bar{x}$	DR
Typhoons	4.36	Very High
Floods	4.26	Very High
Earthquakes	4.21	Very High
Landslides	4.15	High
As a whole	**4.25**	**Very High**

Norms for interpretation:

Items		DR	Overall DR
4.21 - 5.0	-	Always (A)	Very High (VH)
3.41 - 4.20	-	Often (O)	High (H)
2.61 - 3.40	-	Sometimes (So)	Fair (F)
1.81 - 2.60	-	Seldom (Se)	Low (L)
1.00 - 1.80	-	Never (N)	Very Low (VL)

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A "Very High" extent of practices along personal practices, with a mean rating of 4.25, shows that the respondents are very much aware of what to do in case a disaster may happen, and they take action concerning the maintenance of their health most especially in their preparation for an impending disaster. Likewise, this could also be attributed to their past experiences from previous disasters that they encountered.

These findings align with a Study on Knowledge, Attitudes, and Practices (KAP) for Disaster Risk Reduction in Northern Rakhine State Myanmar Assessment Report August (2015) regarding disaster preparations. Most of the respondents answered that they are very much aware and know what they will be doing in case of disaster. Still, they also claimed that they need more resources and equipment to effectively prepare for and respond to these disasters when the time comes. It is in contrast with the study of Venezuela (2021). The result shows that households' preparedness level for climate change impacts is adequate. When taken singly, respondents are fully prepared for frequent/intense typhoons and adequately prepared for coastal or tidal flooding, coastal soil erosion, and saltwater intrusion.

Table 5

Correlation coefficient between the level of knowledge on disasters and socio-demographic profile

	Typhoons	**Floods**	**Earthquakes**	**Landslides**	**As a whole**
Residence	-0.075	**0.193***	0.091	0.091	0.167
Age	-0.036	0.053	-0.042	0.032	0.003
Sex	0.066	0.095	-0.043	**-0.191***	-0.027
Civil Status	-0.042	-0.013	-0.102	**-0.271***	-0.158
Occupation	0.136	0.114	-0.001	**0.252***	**0.183***
Family Income	0.142	0.162	0.051	**0.193***	**0.202***
Educational attainment	-0.033	-0.105	-0.074	**0.225***	0.003
Family	-0.167	**-0.209***	-0.073	-0.009	-0.169
House	-0.027	-0.108	-0.165	0.052	-0.094
Seminar	0.092	0.104	0.035	-0.028	0.075
Membership to organization	0.167	0.220*	0.096	-0.044	0.162

* Correlation is significant at a 0.05 level

As a whole, there is a significant relationship between the socio-demographic profile and the respondents' level of knowledge on disaster, along with occupation and family income. This means that professional respondents with a higher family income tend to have a higher level of expertise in disasters because they can afford to buy newspapers or books to learn about disasters. Further, they have many opportunities to attend conferences where they learn about disasters, preparation, and mitigation. This supports the findings of Roxas, M. (2011) that family income is significantly related.

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The study conducted by Nigg (1995) concluded that poorer families are more vulnerable to disaster-induced losses and have more difficulty recovering due to a lack of knowledge of disasters. Those with higher family incomes can afford to buy communication gadgets such as television and access the internet, where they read disaster information.

When taken singly, it is further observed from the table that there is a significant relationship between the socio-demographic factors and the respondents' knowledge of disasters along floods. Residence, type of family, and membership to the organization, which are significant at the .05 probability level, suggest that a significant relationship existed. This means those living in flood-prone areas tend to have more knowledge of floods, mainly because they have already experienced them. Those with a smaller number of family members will also be more knowledgeable about floods because of the limited number of support systems; they have to rely on themselves in disaster cases. For this reason, they gather information on the disaster and how to prepare for it. Also, community organization members tend to be more knowledgeable about floods because these organizations conduct lectures and seminars on disasters.

Furthermore, there is a significant relationship between the socio-demographic factors and the respondents' knowledge of disasters along landslides. This was observed in sex, civil status, occupation, family income, and educational attainment, which are all significant at a .05 probability level. The result suggests a significant relationship between the respondents' knowledge level of disaster along with sex, civil status, occupation, family income, and educational attainment. This implies that respondents who are single, female, professionals with a higher family income, and college graduates have a higher level of knowledge on disaster along landslide. The result can be attributed to the fact that most of the participants during community training and seminars on disaster are female and single because they do not have families yet to take care of. Most of the males in the family go to work, and those who are professionals and college graduates have acquired knowledge during their studies. Those with higher family incomes can afford television and access the internet, where they read information regarding landslides.

As a whole, there is a significant relationship between the socio-demographic factors and the extent of disaster preparedness related to environmental practices. This claim was observed on the residence, occupation, and educational attainment, which are significant at a .05 probability level. It means that those respondents from flood-prone areas tend to have a better extent of disaster preparedness than those with a higher level of education and occupation. It could be attributed to the experiences of the respondents coming from flood-prone areas, as well as those who have post-graduate degrees and work as professionals because they acquired their practices on disaster preparedness during attendance to seminars and training programs conducted.

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Table 6

Correlation between extent of practice on disaster preparedness along environmental and socio-demographic factors

	Typhoons	Floods	Earthquakes	Landslides	As a whole
Residence	**0.207***	0.102	0.162	**-0.173***	**0.178***
Age	0.041	0.089	0.157	0.023	0.086
Sex	-0.046	-0.074	-0.089	-0.168	-0.107
Civil Status	-0.115	-0.096	-0.168	**-0.218***	-0.168
Occupation	**0.206***	**0.242***	**0.220***	**0.305***	**0.273***
Family Income	0.145	0.153	0.072	**0.170***	0.151
Educ	**0.182***	0.137	0.122	**0.202***	**0.179***
Family	-0.008	-0.064	-0.038	-0.021	-0.037
House	**0.180***	0.134	0.168	0.123	0.167
Seminar	0.033	0.069	-0.062	-0.037	0.001
Membership	-0.056	0.004	-0.054	-0.008	-0.030

*. Correlation is significant at a 0.05 level

In a similar study on disaster preparedness by Roxas, M. (2011), there is a significant relationship between the level of disaster preparedness and management and occupation. Full-time employees who know about and have practiced company disaster plans are better prepared. On the other hand, educational attainment was found to be significantly related to the overall extent of disaster preparedness.

When taken singly, the extent of disaster preparedness during a typhoon is significantly correlated with residence, occupation, educational attainment, and type of house. It means that those who reside in flood-prone areas tend to have a better extent of disaster preparedness during a typhoon because of their experiences. Also, those who finished higher education and those working as professionals tend to have better disaster preparedness during typhoons and floods because most institutions conduct training programs and seminars related to disasters.

The result also implies that those with a better extent of disaster preparedness tend to own and live in a heavy type of house, mainly because this type of house can withstand typhoons, reducing the effects of the disaster.

It is further observed that the extent of disaster preparedness for floods and earthquakes significantly correlates with occupation. Those who are professionals tend to have a better extent of disaster preparedness because most institutions conduct training programs and seminars related to disasters.

Furthermore, the extent of disaster preparedness along landslides is significantly correlated with residence, civil status, occupation, family income, and educational attainment. It means that those residing in landslide-prone areas tend to have better disaster preparedness related to landslides because of their experiences. Also, single people who have finished higher education and work as professionals who earn higher monthly income tend to have a better extent of disaster preparedness because they have learned this in school or the workplace. They can afford to buy

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materials and equipment in preparation for disasters. Also, single people have time to attend seminars and training programs on disaster preparedness in the Community.

This is parallel to the study of Rafanan (2021) recommending solutions under school disaster management, which is to improve the implementation of safety policies and develop awareness and enforcement through in-depth participation in training and seminars. Close monitoring of higher officials in the implementation of policies was also mentioned.

Table 7

Correlation between socio-demographic profile and extent of disaster preparedness along personal practices

	Typhoons	Floods	Earthquakes	Landslides	As a whole
Residence	0.145	0.128	0.046	0.146	0.125
Age	0.076	0.066	0.006	-0.013	0.035
Sex	**-0.228***	**-0.259***	-0.139	-0.169	**-0.215***
Civil Status	**-0.256***	**-0.237***	-0.169	**-0.268***	**-0.253***
Occu	**0.321***	**0.310***	**0.231***	**0.293***	**0.314***
Family Income	**0.215***	**0.263***	**0.266***	**0.255***	**0.276***
Educ	**0.274***	**0.255***	0.125	**0.244***	**0.241***
Family	-0.133	-0.093	-0.089	-0.105	-0.114
House	**0.247***	**0.189***	0.093	0.120	**0.173***
Seminar	0.068	0.052	0.061	0.009	0.052
Membership	-0.034	-0.016	-0.002	-0.017	-0.018

**. Correlation is significant at a 0.05 level*

Table 7 presents the correlation between the socio-demographic factors and the extent of disaster preparedness related to personal practices.

It can be gleaned from the table that, taken as a whole, there is a significant relationship between the socio-demographic factors and the extent of disaster preparedness related to personal practices. This was observed in sex, civil status, occupation, monthly family income, educational attainment, and type of house, which are all significant at a .05 probability level. The result shows a significant relationship between the extent of disaster preparedness related to personal practices and the respondents' profiles.

When taken singly, the extent of disaster preparedness related to personal practices during a typhoon is significantly correlated to sex, civil status, occupation, monthly family income, educational attainment, and type of house. Also, the extent of disaster preparedness related to personal practices along flood is significantly correlated to the variables mentioned above: sex, civil status, occupation, monthly family income, educational attainment, and type of house. This means that those who are female and single tend to have a better extent of disaster preparedness for typhoons and floods; most of the participants during community training and seminars on disaster are female and single because they do not have yet families to take care of,

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and most of the males in the family go to work. Also, those who finished a higher level of education and those working as professionals tend to have better disaster preparedness for typhoons and floods because most institutions conduct training programs and seminars related to disasters.

The result also implies that those with a better extent of disaster preparedness tend to own and live in a heavy type of house, mainly because this type of house can withstand typhoons and floods, thus mitigating the effects of the disaster.

It can be further observed that the extent of disaster preparedness related to personal practices during an earthquake is significantly correlated to occupation and monthly family income. This means that those working as professionals and earning higher monthly incomes tend to have a better extent of disaster preparedness because they can afford better houses that can withstand earthquakes and buy kits and equipment in preparation for a disaster.

Furthermore, the extent of disaster preparedness related to personal practices along landslides is significantly correlated with civil status, occupation, monthly family income, and educational attainment. This means that those who are single, have finished a higher level of education, and working as professionals who earn higher monthly income tend to have a better extent of disaster preparedness because of the same reason that they have learned this in school or the workplace and that they can afford to buy materials and equipment in preparation for disasters. Also, single people have time to attend seminars and training programs on disaster preparedness conducted in the communities.

Table 8

Correlation between level knowledge of disasters and extent of practice on disaster preparedness

Know-ledge on Disasters	Environmental				Personal				As a whole
	Typhoons	Floods	Earth-quakes	Land-slides	Typhoons	Floods	Earth-quakes	Land-slides	
Typhoons	-0.147	0.019	-0.002	0.019	0.062	-0.037	-0.108	-0.061	-0.039
Floods	-0.083	-0.007	-0.021	-0.014	-0.015	0.056	0.064	0.031	0.003
Earth-quakes	-0.092	-0.001	0.023	0.090	-0.072	-0.007	0.069	-0.033	0.002
Landslides	**0.199***	**0.181***	**0.343***	**0.448***	**0.378***	**0.456***	**0.301***	**0.268***	**0.387***

* Correlation is significant at a 0.05 level

As a whole, there is a significant relationship between the level of knowledge on disasters and the extent of practice on disaster preparedness.

When taken singly, knowledge of landslides is significantly correlated to the extent of disaster prepared on both personal and environmental practices. This implies that those who are very knowledgeable about landslides tend to have a better extent of disaster preparedness, both personal and environmental practices, because of the generality of landslides being an effect of typhoons, floods, or earthquakes.

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CONCLUSIONS

A great percentage of the respondents are young, non-skilled workers, college graduates with a meager income, living in a nuclear family, and are members of CARD Inc./PAGASA (lending Institution). The majority of them live in the flood-prone area, are female, and are married, with no attendance to training and seminars. A great majority of them owned a permanent house. 2) The level of knowledge of the respondents on disasters is "High." The extent of preparedness of the respondents along environment is "High" and on personal practices is "Very High". 3)The extent of practice on disaster preparedness of the respondents along environment is "High" and on personal practices is "Very High." 4) There is a significant relationship between the socio-demographic profile and the level of knowledge on disaster along occupation and family income. 5) There is a significant relationship between the socio-demographic profile and the extent of practices on disaster preparedness along environmental in terms of residence, occupation, and educational attainment, and personal practices in terms of occupation, family income, and educational attainment and an inverse relationship between the sex, civil status and the extent of practices on disaster preparedness. 6) There is a significant relationship between the extent of disaster preparedness and knowledge of disasters.

RECOMMENDATIONS

1) The knowledge on disasters should be improved through seminars, training, and information dissemination, especially in disaster-prone communities, by the Provincial Risk Reduction Management Council, Local Government Units, Academe, and Non-Government Organizations. 2) The Government (Provincial Risk Reduction Management Council, Local Government Units, and Non-Government Organizations) should require housewives to attend seminars and training to empower themselves in disaster preparedness. 3) The extent of support by the different agencies like the Provincial Risk Reduction Management Council, Local Government Units, and Non-Government Organizations should be improved through program planning, implementation of planned activities, and community involvement in all of the programs implemented. 4) The community's disaster preparedness should be maintained and reinforced through regular training programs and updates by the government and non-government organizations; Academe and topics on disaster preparedness should also be integrated into the curriculum.

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