

RESEARCH ARTICLE

Level of Awareness on Disaster Risk Reduction of the University of Eastern Philippines Employees and Students

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ABSTRACT

The researchers looked at how well academics, students, and non-teaching staff at the University of Eastern Philippines System were aware of disaster risk reduction. Education, agriculture, health, fisheries, and marine resources were all used to measure awareness. The research also revealed a link between awareness and a number of personal characteristics, as well as a substantial variation in awareness amongst student groups.

The study used a 30-item Likert type instrument to assess disaster risk reduction awareness and used a descriptive-correlational research approach. Percentages, means, multiple regression analysis, and analysis of variance were used to examine the data. The study's findings revealed that faculty members were well-versed in disaster risk reduction in education, agriculture, and health, as well as disaster risk reduction in fisheries and marine resources, infrastructure, and the environment and natural resources. The students were well-informed on disaster risk reduction in the areas of education, agriculture, and health, as well as disaster risk reduction in the areas of fisheries and marine resources, infrastructure, and the environment and natural resources. The six components of the degree of awareness were known to the non-teaching employees. Exposure to newspapers and television was shown to be substantially associated to the level of disaster risk reduction knowledge among faculty and non-teaching personnel. Students' newspaper exposure and year levels were shown to be substantially connected to their degree of disaster risk reduction knowledge. There is a considerable variation in disaster risk reduction awareness across the three categories of respondents.

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Introduction

The growing danger of environmental concerns, particularly the climate change phenomenon, along with the country's current social, political, and technical transformations has resulted in increased demands and adjustments in educational institutions. The school, as a social change agent and a mold of young people into responsible citizens, was supposed to teach the required information, skills, and values to assist the government in dealing with these changes.

As a result, one strategy for dealing with these changes is to include social concerns, particularly environmental ones, into curriculum and other education programs in order to develop environmental activist advocacy in educational institutions.

The provisions of Republic Act 10121, also referred as Disaster Risk Reduction and Management (DRRM) Act of 2010, verify this need, for which case the Philippine disaster management system is transformed from disaster relief and response to disaster risk reduction (DRR). Disaster risk reduction became a theme in the progression of the Philippine Development Plan (PDP), and its concerns are mainstreamed and incorporated in different parts of their plan, such as social development, agriculture, environment and natural resources, and infrastructures, to guarantee that DRMM is

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mainstreamed into our national policies and plans. Particularly, the environment chapter assesses the country's susceptibility to natural disasters and climate change. It also covers measures for increasing environmental quality, safeguarding and conserving natural resources, improving natural system resilience, and developing community adaptive capabilities to cope with environmental hazards, such as disasters and climate-related risks.

Unfortunately, UEP's compulsory solution to the problem/issue of disaster risk reduction management is still in its infancy at this moment, and hence is not without reproach. As a long-time affiliate member of the Philippines' Environmental Education Network (EENP), We believe that immediate aggressive action should be taken now, before it is too late. The most pressing issues in environmental education advocacy should be addressed as soon as possible in order to ensure that appropriate environmental initiatives are implemented.

However, the study discovered that the university's disaster risk reduction education campaign and advocacy are lacking. It was discovered that if a tsunami warning is issued, the University community has no coordination with administration or local government about where to go and who to contact for advice on what to do and where to go. There will be many casualties and damages if a disaster occurs. The study discovered that many at the university are unconcerned about the environment. They may have a poor degree of understanding of disaster risk concerns, which may be the reason they do nothing to address it.

The purpose of this study was to find out how well teachers, students, and non-teaching staff at the University of Eastern Philippines System were aware of disaster risk reduction.

Methodology

This study involved teachers, students, and non-teaching individuals of three campuses of University of Eastern Philippines. Respondents were drawn through stratified random sampling in the main campus, UEP Catubig, and UEP Laoang. This sampling technique was done by dividing the population into categories or strata and getting the members at random proportionate to each stratum or subgroup. Sloven's formula was used to guarantee high reliability of outcomes which were obtained from the research.

Respondents were requested to check their answers and information were sought through supplemental questions and informal interviews. However, research assistants were hired by the researcher for the distribution and retrieval of the questionnaires and they helped her in the tallying of the response in the survey instruments.

Results and Discussion

Awareness level of faculty disaster risk reduction on education. UEP Main and UEP Catubig answered "much aware" in statement 1, 3 and 4 "aware" in statements 2 and 5 while UEP Laoang answered "much aware" in statements 1, 4 and 5, "aware" in statements 2 and 3. In regards to 'preparation, reproduction and distribution of information, education and communication on disaster risk reduction',

UEP Main has a weighted mean of 3.48, UEP Catubig 3.56 and UEP Laoang 3.5; "enrolment for DRM-related program in the graduate and undergraduate levels should be integrated", UEP Main 3.11, UEP Catubig 3.39 and UEP Laoang 3.21; "emergency drill in fire, earthquake, bomb threat, flood, tsunami, typhoon drills are conducted in your school among your faculty and students", UEP Main 3.52, UEP Catubig 3.44 and UEP Laoang 2.86, "school is involve in providing assistance to the community by way of being used as relocation and evacuation centers during natural disaster and calamities", UEP Main had a weighted mean of 3.45, UEP Catubig 3.72 and UEP Laoang 3.86; and "disaster management Plan is integrated in the development plan of the school and school have organized volunteer in case or emergency to help those victims of disaster's"; UEP Main 3.29, UEP Catubig 3.22 and UEP Laoang 3.5.

The weighted mean of UEP Main 3.36 and UEP Laoang 3.38 means "aware" and UEP Catubig 3.46 revealed they are "much aware" on the statements. the weighted mean of the three campuses of 3.40 with descriptive rating of "much aware". It reveals that in terms of awareness level on disaster risk reduction of teaching personal in the three campuses of the University of Eastern Philippines on education, findings show that the highest weighted mean was 3.67 which means that they are much aware on the aspect "school is involved in providing assistance to the community by way of being used as relocation and evacuation centers during natural disaster and calamities". This supports the program of Don Mariano Marcos Memorial State University, wherein during the times when floods, minor landslides and other associated hazards brought by typhoons, the whole institution community participates in clean up and clearing operations and in restoring the areas heavily affected.

On the other hand, the lowest weighted mean among the three campuses is 3.23 which mean that the faculty are "aware" on the aspect on enrolment for disaster risk management related program in the graduate and undergraduate levels should be integrated".

The finding supports the programs of Don Mariano Marcos Memorial State University because the safety and resilience of a community is a concern not only of an individual but of the organization directly responsible in providing necessary education and information needs of the people, the academe plays a key role in disaster risk reduction. Preparation, reproduction, and distribution of information and communication materials are done as part of information campaign on disaster risk management.

Table 1 shows the awareness level of the student in the three campuses on disaster risk reduction on education. Students in UEP Main responded "much aware", UEP Catubig responded "much aware" in all students except statement 2 and UEP Laoang respondents were "much aware" in statement 1 and "aware" on statement 2,3,4 and 5. As regards to the "preparation, reproduction and distribution of information, education and communication on disaster risk reduction", UEP Main 3.89, UEP Catubig 3.9 and UEP Laoang 3.58; "enrolment for DRM-related program in the graduate and undergraduate levels should be integrated", UEP Main 3.45, UEP Catubig 3.23 and UEP Laoang 3.04; "emergency drill in fire, earthquake, bomb threat, flood, tsunami, typhoon

drills are conducted in your school among your faculty and students”, UEP Main 3.84, UEP Catubig 3.62 and UEP Laoang 3.35; “School is involved on providing assistance to the community by way of being used as a relocation and evacuation centers during calamities”, UEP Main 3.83, UEP Catubig 3.67 and UEP Laoang 3.15; “disaster management Plan is integrated in the development plan of the school and school have organized volunteer in case or emergency to help those victims of disasters”, UEP Main 3.73, UEP Catubig 3.56 and UEP Laoang 3.12.

Table 1. Summary of the result on awareness level on disaster risk reduction of UEP employees and students

Area	Respondents' Answers		
	Faculty	Students	Non-Teaching
Education	Much Aware	Much Aware	Aware
Agriculture	Much Aware	Much Aware	Aware
Health	Much Aware	Much Aware	Aware
Fisheries and Marine Resources	Much Aware	Much Aware	Aware
Infrastructure	Much Aware	Much Aware	Aware
Environment and Natural Resources	Much Aware	Much Aware	Aware

The weighted mean of UEP Main 3.74 and UEP Catubig 3.59 indicates “much aware” and UEP Laoang 3.24 indicates “aware”. The weighted mean 3.52 on disaster risk reduction on education had a descriptive rating of “much aware” on the three campuses. It is apparent that the highest weighted mean of the responses of the students in the three campuses was 3.78 which mean that they were “much aware” on the aspect of “preparation, reproduction and distribution of information, education and communication on disaster risk reduction”. While the lowest weighted mean was 3.24 on the aspect of “enrolment for DRM-related program in the graduate and undergraduate levels should be integrated”, which means that the students were “aware” of it. This supports the view of the Don Mariano Marcos Memorial State University being one of the programs in environmental science and management, forestry and allied fields in natural resources management which is involved in disaster risk management and preparedness.

The awareness level of non-teaching personnel in the three campuses on disaster risk reduction on education. Non-teaching respondents in UEP Main answered “much aware” in statements 1,2 and 5 and answered “aware” on statement 3 and 4. UEP Catubig and UEP Laoang answered “aware” in all statements. In regards to “preparation, reproduction and distribution of information, education and communication on disaster risk reduction”, UEP Main 3.18, UEP Catubig 2.6 and UEP Laoang 3.21; “enrolment for DRM-related program in the graduate and under graduate levels should be integrated”, UEP Main 2.92, UEP Catubig 2.47 and UEP Laoang 2.64; “emergency drill in fire, earthquake,

bomb threat, flood, tsunami, typhoon drills are conducted in your school among your faculty and students”, UEP Main 3.24, UEP Catubig 2.67 and UEP Laoang 2.57; “School is involved on providing assistance to the community by way of being used as a relocation and evacuation centers during calamities”, UEP Main 3.52, UEP Catubig 2.73 and UEP Laoang 2.71; and “disaster management Plan is integrated in the development plan of the school and school have organized volunteer in case or emergency to help those victims of disasters”, UEP Main 3.26, UEP Catubig 2.73 and UEP Laoang 2.43.

The weighted mean of UEP Main 3.22 and UEP Catubig 2.64 and UEP Laoang 3.29 indicates “aware”. The weighted mean of three campuses was 2.22 which means that respondents are “much aware” on the statements of disaster risk reduction on education. The statistics suggest that among the three responder categories, professors and students had a greater level of disaster risk reduction awareness (far more aware) than the non-teaching group (aware). This may be so because faculty and students have higher access to wide range of information materials.

The table shows that the highest weighted mean of the respondents of the three campuses was 2.99 which mean that the respondents were aware on the aspect of “preparation, reproduction and distribution of information, education and communication on disaster risk reduction”. However, the lowest weighted mean of the respondents of the three campuses was 2.67 which mean that they were aware on the aspect on “enrolment for DRM-related program in the graduate and under graduate levels should be integrated”.

The awareness level of the non-teaching personnel in the three campuses on disaster risk reduction on health. Both UEP Main and UEP Laoang were “much aware” in all the statements while UEP Catubig answered only “much aware” in statements 1 and 2, “aware” in statement 3, 4 and 5. In terms of “importance of relief delivery operations, conduct of medical mission and putting up of a search and rescue teams in the community”, UEP Main 3.58, UEP Catubig 3.44 and UEP Laoang 4.07; “importance of the forced evaluation for hard-headed residents” UEP Main 3.56, UEP Catubig 3.56 and UEP Laoang 4.07; “National legislation on upgrading of local calamity fund”, UEP Main 3.42, UEP Catubig 3.22 and UEP Laoang 4; “institutionalization Disaster Reduction Management (DRM) office at the city and municipal level”, UEP Main 3.41, UEP Catubig 3.22 and UEP Laoang 3.5; “more disaster preparedness at the barangay level”, UEP Main 3.44, UEP Catubig 3.13 and UEP Laoang 3.79.

The weighted mean of UEP Main 3.55, UEP Catubig 3.06 and UEP Laoang 3.75 had a rating of “aware”. The weighted mean of the three campuses was 3.56 descriptive rating of “much aware”.

The results show that the highest weighted mean was 3.73 which means that the respondents were much aware on the aspect of “importance of relief delivery operations, conduct of medical mission and putting up of a search and rescue teams in the community”. This study backs up Logue’s (1996) claim that natural and man-made disasters continue to negatively impact portions of the world in predictable and unpredictable ways, necessitating public emergency response to disasters. Disaster management must include public health professionals and many others. However, the lowest weighted

mean was 3.37 which means that most of the respondents are aware on the aspect on “institutionalization of Disaster Reduction Management (DRM) Office at the city and municipal level”. This support the province of Albay wherein they were aimed at achieving “zero casualty” since the Disaster Risk Management Office became a regular Department of the Provincial Government. Gov. Salceda institutionalized Disaster Risk Management Office to focus on calamities alone.

The awareness level of the student in the three campuses on disaster risk reduction management on health. Student respondents in UEP Main and UEP Laoang responded “much aware” in all the statements while UEP Catubig answered “much aware” only in statements 1 and 2 and “aware” in statements 3, 4 and 5. In terms of the “importance of relief delivery operations, conduct of medical mission and putting up a research and rescue teams in the community”, UEP Main 3.98, UEP Catubig 3.64 and UEP Laoang 3.5; “importance of forced evacuation for hard-headed residents”, UEP Main 4.76, UEP Catubig 3.49 and UEP Laoang 3.54; “National legislation on upgrading of local calamity fund”, UEP Main 3.53, UEP Catubig 3.32 and UEP Laoang 3.42; “institutionalization of Disaster Reduction Management (DRM) Office at the city and municipal level”, UEP Main 3.39, UEP Catubig 3.13 and UEP Laoang 3.15; and “more disaster preparedness at the barangay level”, UEP Main 3.6, UEP Catubig 3.37 and UEP Laoang 3.45.

The weighted mean of UEP Main 3.65, UEP Catubig 3.41 and UEP Laoang 3.40 indicates “much aware”. The weighted mean of the three campuses is 3.49 implies that respondents are “much aware” on the statement of disaster risk reduction on health.

The greatest weighted mean is 3.70, indicating that participants are “well-informed” on the “importance of forced evacuation for hard-headed inhabitants”. In the same vein, the lowest weighted mean is 3.22 which mean that most of the respondents are “aware” on the aspect on “institutionalization of Disaster Reduction Management (DRM) Office at the city and municipal level” this is supported by the province of Albay experience wherein their aim of achieving “zero casualty” is made possible through their Disaster Risk Management Office which became a regular Department of the Provincial Government.

The awareness level of the non-teaching personnel in the three campuses on disaster risk reduction on Health. Non-teaching personnel in the UEP Main responded “much aware” in statement 1 and 2 and “aware” on statements 3, 4 and 5. UEP Catubig responded “aware” on statements 1, 2, 4 and 5 and less “aware” in only statement 3. UEP Laoang non-teaching personnel responded “aware” in all the statements. In terms of “importance of relief delivery operations, conduct of medical mission and putting up a research and rescue teams in the community”, UEP Main 3.64, UEP Catubig 2.87 and UEP Laoang 3.27; “importance of forced evacuation for hard-headed residents”, UEP Main 3.63, UEP Catubig 2.94 and UEP Laoang 3.07; “National legislation on upgrading of local calamity fund”, UEP Main 3.27, UEP Catubig 2.56 and UEP Laoang 2.87; “institutionalization of Disaster Reduction Management (DRM) Office at the city and municipal level”, UEP Main 3.28, UEP Catubig 2.88 and UEP

Laoang 2.8; and “more disaster preparedness at the barangay level”, UEP Main 3.32, UEP Catubig 2.62 and UEP Laoang 2.93.

The weighted mean of UEP Main 3.42, indicates “much aware”, UEP Catubig 2.77 and UEP Laoang 2.98 indicates “aware”. The weighted mean of the three campuses is 3.06 on disaster risk reduction on health has a descriptive rating of “aware”. Based on the preceding data similar patterns of awareness were demonstrated with faculty and students “much aware” and non-teaching personnel, “aware” level only. Findings show that the highest weighted mean of the respondents of the three campuses is 3.26 which mean that most of the respondents are “aware” on the aspect of “importance of forced evacuation for hard-headed residents”. The experience of Albay supports this because military forced residents to evacuate their houses which result to less damages and zero mortality. While lowest weighted mean is 2.88 which means that most of the respondent are “aware” on the aspect on “National legislation on upgrading of local community fund”. The findings back up Evasco and Alejandro's (2010) claim that the barangay Disaster Coordinating Council Heads stated that these are the issues that arise often during the various stages of disaster preparedness: Dredging canals (prevention), lack of effective coordination (mitigation), delayed delivery of relief commodities (response), and lack of funding are all issues that need to be addressed (recovery and rehabilitation).

Conclusion

In terms of the respondents' level of disaster risk reduction awareness, both professors and students demonstrated that they had a wide variety of access to environmental information. This means they'll be able to take part in any disaster risk reduction initiatives, seminars, or trainings. They might share their expertise with others in order to raise awareness and participation in the Department of Environment and Natural Resources', Local Government Units', and Non-Governmental Organizations' disaster risk reduction campaign.

The researcher is convinced that the findings of this study would be useful to policymakers and program planners at the University of Eastern Philippines System in creating recommendations for the conception and implementation of proactive measures and thrusts with respect to the following:

1. Motivate the UEP Office of the Vice President for Research and Extension, as well as the Executive Directors of UEP Catubig and UEP Laoang, to arrange a “Trainors' Training Summit on Disaster Risk Reduction” in collaboration with Office of the Governor, the DENR Provincial Office, and other active environmental non-government institutions such as Plan Philippines, where students, faculty, administration officials, LGU officials, socio-civic organizations, and members of the clergy will participate.
2. The UEP System should begin mainstreaming climate change adaptation in their planning and development programs and projects as early as possible, based on

Governor Joey Sarte Salceda's "Championing Climate Change Adaptation: the Albay Experience," Center of Initiative and Research on Climate Adaptation (CIRCA), Albay Provincial Capitol, Annex 2, Legaspi City, Philippines.

3. If feasible, create connections with Provincial and Regional Disaster Coordinating Councils, the Environmental Education Network of the Philippines (EENP), the School of Environmental Science and Management (SESAM), UPLB, and the NEDA Region 8 Office to mainstream disaster risk reduction into the UEP System.
4. The UEP System should support and strengthen its "Disaster Education and Information Campaign" by inviting more specialists in this area and developing a Climate Change Adaptation Plan in collaboration with local government entities.
5. Additional disaster scenarios involving students, professors, and non-teaching workers should be continued and done in every college of the UEP System.

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