

Level of Awareness on Climate Change Adaptation of the University of Eastern Philippines Employees and Students

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ABSTRACT

The study determined the level of awareness on climate change adaptation of the faculty members, students, and non-teaching personnel of the University of Eastern Philippines System. The awareness was measured in terms of education, agriculture, health, fishery and marine resources, infrastructure and human settlement, and environment and natural resources. The study also found the correlation of the level of awareness and selected personal variables and the significant difference in the awareness among the groups of respondents.

The study employed the descriptive-correlation method of research utilizing a 30-item Liker type instrument on awareness on climate change adaptation. Data were analyzed using percentages, means, multiple regression analysis, and analysis of variance.

The findings of the study showed that the faculty members were much aware on climate change adaptation in terms of education, agriculture, and health and aware on climate change adaptation in terms of fishery and marine resources, infrastructure, and environment and natural resources. The students were much aware on climate change adaptation in terms of education, agriculture, and health and aware on climate change adaptation in terms of fishery and marine resources, infrastructure, and environment and natural resources. The nonteaching personnel were aware on the six components of the level of awareness. For the faculty members and non-teaching personnel, the exposure to newspaper and television were found to be significantly related to the level of awareness on climate adaptation. For the students, the exposure to newspaper and year level were found to be significantly related to the level of awareness on climate adaptation. There is a significant difference in the level of awareness on climate change adaptation among the three groups of respondents.

KEYWORDS: *awareness, climate change adaptation, faculty members, students, non-teaching personnel*

I. INTRODUCTION

The impending threat of environmental problems especially that of the climate change phenomena with the confluence of the social, political and technological changes confronting the country today have created greater demands and changes to the educational institutions. The school as an agent of social change and mold of the youth to become responsible citizens have been expected to provide the necessary knowledge, skills and values in helping the government cope with these changes.

Accordingly, one of the strategies used to respond to these changes is to incorporate societal issues, particularly environmental issues into the curricula and other education programs with the view of inculcating environmental activism advocacy in the educational institutions.

This is highlighted by the provisions of the Republic 10121, known as Climate change adaptation and Management (DRRM) Act of 2010, which

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corroborates this exigency in which case it transforms the Philippine's disaster management system from disaster relief and response towards climate change adaptation (CCA). To ensure that DRMM is mainstreamed into our national policies and plans, the development of Philippine Development Plan (PDP), climate change adaptation has now become a theme and its concerns are mainstream and incorporated in various parts of their plan, i.e., social development, agriculture, environment and natural resources, and infrastructures. The environment chapter in particular, contains an assessment of the country's vulnerability to nature hazards and climate change. It also includes strategies for improving the quality of the environment, protecting and conserving natural resource, enhancing the resilience of natural systems and improving the adaptive capacities of communities to cope with environmental hazards, including disaster and climate-related risks.

Sad to say at this point in time, UEP's obligatory response to the challenge of the problem/issue of climate change adaptation management is still in its infant stage, thus it is not beyond reproach. As affiliate member of the Environmental Education Network of the Philippines (EENP) for so many years now, immediate proactive action should be done now before it is too late. Pressing problems in terms of environmental education advocacy should have to be addressed the soonest to ensure that sound environmental programs are implemented.

Unfortunately, the researcher observed that the University has poor information campaign and advocacy on Climate change adaptation. It was observed that if there is a tsunami alert, the people of the University has no coordination with the administration or local government where to go and who are the authorities to guide them on what to do and where to go. If ever, disaster happens there will be a lot of casualties and damages. The researcher observed that there is low environmental concern among the people in the University. They may have low level of awareness of the disaster risk issues and precisely it may be the reason why they do not do anything about it.

This study aimed at investigating the extent of awareness level on climate change adaptation of the faculty members, students, and non-teaching personnel of the University of Eastern Philippines System.

II. METHODOLOGY

This study involved the faculty, students, and non-teaching personnel of the three campuses of University of Eastern Philippines. The 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 ensure higher reliability of the results which were derived from the study.

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.

III. RESULTS AND DISCUSSION

The UEP Main responded "much aware" in all statements except statement 5 with "aware" response. The UEP Catubig responded "much aware" in all statements except statement 2 with "very much aware" in statements 1, 3 and 4, "very much aware" on statement 2 and "aware" on statement 5. In terms of "mainstreaming climate change adaption in education sector", with a weighted mean of 3.68 in UEP Main, UEP Catubig had a weighted mean of 4.11 and UEP Laoang 3.64; "Promote clean and green programs in all higher education institutions", UEP Main 4.03, UEP Catubig 4.44 and UEP Laoang 4.5; "massive production of Information and Educational campaign materials on climate change (e.g. local version of inconvenient truth", UEP Main had weighted mean 3.51, UEP Catubig 3.78 and UEP Laoang is 3.71; "Ensure that formal education curricula includes climate change issues and develop new curricular programs on resource management and use in relation to climate change (Baccalaureate and Graduate Programs)", UEP Main 3.48, UEP Catubig 3.78 and UEP Laoang 3.21; and provision of Special scholarships, fellowships and study grants in the field environment/resource management", the UEP Main is 3.15, UEP Catubig 3.72 and UEP Laoang 3.7.

It had weighted mean of 3.74 with a descriptive rating of "much aware" for the three campuses. The UEP Main 3.56, UEP Catubig 3.96 and UEP Laoang 3.7 which means the faculty in the three campuses are "much aware" in all the statements on climate change adaption on education.

It was revealed that the three campuses University of Eastern Philippines had almost equal weighted mean of 4.32, which means that they were "very much aware" on "promoting clean and green programs in all higher education institutions. Other items had almost equal perceptions in the four major aspects such as mainstreaming climate change adaption in

education sector”, “massive production of Information and Educational campaign materials on climate change (e.g. local version of inconvenient truth)”, “ensure that formal education curricula includes climate change issues and develop new curricular programs on resource management and use in relation to climate change (Baccalaureate and Graduate Programs)” and “provision of special scholarships, fellowships and study grants in the field of environment/resource management” has a lowest weighted mean which supports the mandate of Commission on Higher Education for the provision of special scholarships/fellowships and study grants.

The findings seem to support the view of Senator Loren Legarda to promote public awareness on the environment and to enlist multi-sector participation in addressing environmental problems through Luntiang Pilipinas (Green Philippines). Also, one response of Visayas State University to climate change was on forest restoration.

The level of awareness on climate change adaption of students of the University of Eastern Philippines System on Education. The responses of the students in the UEP Main were “much aware” in all the statements. UEP Catubig answered “much aware” in all statements except statement 5 while UEP Laoang answered “much aware” except on statement 4 and 5 which is “aware”. On the first statement, “Mainstreaming climate change adaption in education sector”, UEP Main had a weighted mean of 3.59, UEP Catubig 3.64 and UEP Laoang 3.46; “promote clean and green programs in all higher education institutions”, UEP Main 4.04, UEP Catubig 4.08 and UEP Laoang 3.69; “Massive production of Information and Educational Campaign materials on climate change (e.g. local version of inconvenient truth)”, UEP Main 3.48, UEP Catubig 3.55 and UEP Laoang 3.42; “ensure that formal education curricula includes climate change issues and develop new curricular programs on response management and use in relation to climate change (Baccalaureate and Graduate Programs)”, UEP Main 3.43 and UEP Catubig 3.56 and UEP Laoang has a weighted mean of 3.19; “provision of special scholarships, fellowships and study grants in the field of environment/resource management”, UEP Main had a weighted mean of 3.52, Catubig 3.36 and UEP Lapang 3.31.

It had a weighted mean of 3.55 with descriptive rating of “much aware” in the three campuses, UEP Main had 3.58; UEP Catubig 3.71; and UEP Laoang 3.37.

It shows that the three campuses of University of Eastern Philippines had almost equal weighted means of 3.93, which means that they were “much aware” on

the aspect on “promoting clean and green programs in all higher education institutions. On the other hand, the lowest weighted mean is 3.39 which means that the respondents were “aware” on the aspect of “provision of Special Scholarships, fellowships and study grants in the field of environment/resource management”. This supports the mandate of Commission on Higher Education for the provision of special scholarships/fellowships and study grants.

The finding seems to support the view of Senator Loren Legarda to promote public awareness on the environment and to enlist multi-sector participation in addressing environmental problems through Luntiang Pilipinas (Green Philippines). This is also supported by the project of Lasallian schools all throughout the country of planting 1 Billion trees as their advocacy of fighting climate change.

The level of awareness of non-teaching personnel in the three campuses on climate change adaption on education. UEP Main answered “much aware” in statement 1, 2 and 3 and “aware” in statements 4 and 5. UEP Catubig was “much aware” only in statements 2 and 3 and “aware” in statement 1, 4 and 5. UEP Laoang was “much aware” only in statement 2 and the rest, “aware”. As regards to “mainstreaming climate change adaption in education sector”, UEP Main had a weighted mean of 3.4, UEP Catubig 3.38 and UEP Laoang 3.07; “promote clean and green programs in all higher education institutions”, UEP Main 3.9 and UEP Catubig 3.63 and UEP Laoang 3.4; “massive production of Information and Educational campaign materials on climate change (e.g. local version of inconvenient truth)”, UEP Main 3.52, UEP Catubig 3.44 and UEP Laoang 3.27 “aware”; “ensure that formal education curricula includes climate change issues and develop new curricular programs on resource management and use in relation to climate change (Baccalaureate and Graduate Programs)”, UEP Main 3.26, UEP Catubig 3.19 and UEP Laoang 3.07; “provision of Special Scholarships, fellowships and study grants in the field of environment/resource management”, UEP Main 2.97, UEP Catubig 2.87 and UEP Laoang 2.6.

The weighted mean was 3.26 with descriptive rating of “aware” in the three campuses. The mean of UEP Main was 3.41 which implies “much aware” while the UEP Catubig 3.3 and UEP Laoang 3.08 were both “aware”. It is apparent that the three campuses of University of Easter Philippines had highest weighted mean of 3.64, which means that they were “much aware” on the aspect of “promoting clean and green programs in all higher education institutions. The finding seems to support the view of Bayan-Anihan by Governor Joey Salceda of Albay in promoting the

raising of, not only vegetables, but also root crops, medicinal herbs and fruit trees. To become green, cover it first with black soil, the richest there is, full of organic matters. Provincial Education Department of Albay sees to it that education serve people, including engaging in proactive initiatives in addition to reactive responses to climate change. On the other hand, the lowest weighted mean was 2.81 which mean that the respondents were “aware” on the aspect of “provision of Special Scholarships, fellowships and study grants in the field of environment/resource management”.

The table presents the result of the extent of awareness of faculty on the climate change adaption on health. It reveals that the faculty-respondents from the three campuses, UEP Main and UEP Catubig and UEP Laoang responded “much aware” on statements 1 and 2 and responded “aware” on statements 3, 4 and 5. On statement “Strengthen” public health program e.g. vaccination, medical mission”, the UEP Main had weighted mean of 3.95, UEP Catubig 4 and UEP Laoang 4.1; “Strengthen” public health program e.g. vaccination, medical mission”, the UEP Main 3.49, UEP Catubig 3.5 and UEP Laoang 3.64; “Improve effectiveness of the annual health department inspection of properties”, the UEP Main 3.34, UEP Catubig 3.39 and UEP Laoang 3.29; “Use technical scientific tools to map and predict disease outbreaks”, UEP Main 3.24, UEP Catubig 3.17 and UEP Laoang 2.64; and “Strengthen border control”, UEP Main 3.12, UEP Catubig 3.11 and UEP Laoang 2.6. The weighted mean of the three campuses was 3.43. this finding shows that faculty respondents were “much aware” on the statements of climate change adaption on health.

It is apparent that the three campuses of University of Eastern Philippines had highest weighted mean of 4.01, which means that they were much aware on “strengthening public health programs e.g. vaccination, medical mission”. This foregoing data supports the view of Senator Loren Legarda that increases in temperature cause surge of diseases such as dengue, malaria, cholera and typhoid. Communities that have been displaced by disasters will most likely expose to health threats in evacuation centers. Also according to Villain (2001) impacts of climate change on health can be addressed through environmental management and sanitation, disaster preparedness, protective technology (housing, providing potable water and vaccination).

On the other hand,” strengthen the border control” had the lowest weighted mean of 2.95 which means “aware” and reinforced by the findings of the World Commission on Environment and Development that

many diseases can be controlled not just through therapeutic interventions but also through improvements in rural water supply, sanitation and health education. More research is urgently needed on the environmentally related tropical discs that are the major health problem. This research should focus not merely to new medicines, but also on public health measures to control these diseases.

The student-respondents of UEP Main and UEP Catubig answered “much aware” in all the statements except statement 5. UEP Laoang responded “much aware” in statements 1 and 2 and “aware” in statements 3, 4 and 5. In terms of “strengthening public health programs e.g. vaccination, medical mission”, the UEP Main has weighted 4.01, UEP Catubig 3.97 and UEP Laoang 4.04; “conduct assessment of climate-related health risk”, UEP Main 3.71, UEP Catubig 3.59 and UEP Laoang 3.42; “improve effectiveness of the annual health department inspection of properties”, UEP Main 3.5, UEP Catubig 3.54 and UEP Laoang 3.31; “use technical and scientific tools to map and predict disease outbreaks”, UEP Main 3.4, UEP Catubig 3.46 and UEP Laoang 3.31; and “strengthen border control”, UEP Main 3.12, UEP Catubig 3.11 and UEP Laoang 2.85;

The weighted mean of the two campuses indicates “much aware”, UEP Main 3.55 and UEP Catubig 3.54 while UEP Laoang was “aware”. The table shows a weighted mean of 3.48 in all the three campuses with a descriptive rating of “much aware”. It is apparent that the three campuses of University of Eastern Philippines had highest weighted mean of 4.00, which means that they are much aware on “strengthening public health programs e.g. vaccination, medical mission”. On the other hand, “strengthen border control had the lowest weighted mean of 3.02 which is reinforced by the findings of The World Commission on Environment and Development that many diseases can be controlled not just through therapeutic interventions but also through improvements in rural water supply, sanitation and health education. More research is urgently needed on the environmentally related tropical discs that are the major health problem. This research should focus not merely to new medicines, but also on public health measures to control these diseases.

The level of awareness of non-teaching personnel in the three campuses on climate change adaption on health. UEP Main answered “much aware” in statement 1 and 2, “aware” in statements 3, 4 and 5. As of UEP Catubig and UEP Laoang answered “much aware” in statement 1 and “aware” statements

2, 3, 4 and 5. In regards to “strengthening public health programs e.g. vaccination, medical mission”, UEP Main had weighted mean of 3.88; UEP Catubig 3.69 and UEP Laoang 3.47; “conduct assessment of climate-related health risk”, UEP Main, 3.42; UEP Catubig 3.19 and UEP Laoang 3.2; “improve the effectiveness of the annual health department inspection of properties”, UEP Main, 3.31, UEP Catubig 3.19 and UEP Laoang 2.73; “use technical scientific tools to map and predict disease outbreaks”; UEP Main, 3.16; UEP Catubig 3.19 and UEP Laoang 2.8; and “strengthen border control”, UEP Main, 2.93; UEP Catubig, three (3) and UEP Laoang 2.6.

The weighted mean of the three campuses indicates “aware” of the statements of climate change adaptation on health, UEP Main, 3.34; UEP Catubig 3.2 and UEP Laoang 2.96. The weighted mean was 3.34 with a descriptive rating of “aware” in all the statements.

Table 2 Summary of the result on the level of awareness on climate change adaptation of the 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	Aware	Aware	Aware
Infrastructure	Aware	Aware	Aware
Environment and Natural Resources	Aware	Aware	Aware

IV. CONCLUSION

With regards to the level of awareness on the climate change adaptation of the respondents, both faculty and students manifested that they have a wide range of access to information on environmental issues. This implies that they could participate in any activities, seminars and trainings about climate change adaptation. They could share their knowledge to other people to be more concerned and active on the campaign of the Department of Environment and Natural Resources, Local Government Units, and Non-Government Organizations about climate change adaptation.

It is the unflinching resolve of the researcher that findings of the present study would be functional to the University of Eastern Philippines System policy

makers and program planners in formulating guidelines in the conceptualization and operationalization of proactive measures and thrusts in terms of the following:

1. Encourage the UEP Office of the Vice President for Research and Extension, the Executive Directors of UEP Catubig and UEP Laoang in cooperation with the Office of the Governor, DENR Provincial Office, and other active environmental non-government organizations like Plan Philippines to conduct a “Trainors’ Training Summit on Climate change adaptation” wherein students, faculty, administration officials, LGU officials, socio-civic organizations and members of the clergy are supposed to attend.
2. In the soonest possible time, the UEP System should initiate in mainstreaming in their planning and development programs and projects through application of “Championing Climate Change Adaptation: theAlbayExperience” of Governor Joey SarteSalceda, Center of Initiative and Research on Climate Adaptation (CIRCA), Albay Provincial Capitol, Annex 2, Legaspi City, Philippines.
3. If possible to make mainstreaming and curriculum inclusion of climate change adaptation to the UEP System would be made possible to establish linkages with Provincial and Regional Disaster Coordinating Council, Environmental Education Network of the Philippines (EENP), School of Environmental Science and Management (SESAM), UPLB and NEDA Region 8 Office.
4. The UEP System should encourage and enhanced its “Disaster Education and Information Campaign” by inviting more experts along this line and in the process in cooperation with local government units come up with a Climate Change Adaptation Plan.
5. More disaster drills like (fire, earthquakes, etc.) should be continued and conducted in every college of the UEP System involving students, faculty, and non-teaching personnel.

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