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Awareness and Response of Wesleyan Ministers in Pangasinan to Climate Change: The Basis for a Mitigation and Adaptation Framework

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Introduction

Climate change is real. It is happening, and every citizen of the world experiences it.[1] What is climate change? National Aeronautics and Space Administration (NASA) defines climate change as the long-term change of temperature and unusual weather patterns in a particular location or the planet as a whole.[2] Scientists have discovered that human activities contribute a lot to climate change, like burning fossil fuels, natural gas, oil, and coal, and the result are greenhouse gases. These greenhouse gases trap heat from the sun's rays inside the atmosphere, causing the earth's average temperature to rise. Because of climate change, the frequency of flooding, water shortage, and extreme heat are expected to increase in the future.[3] In response to the alarming impact and risks of climate change, the United Nations created the Intergovernmental Panel on Climate Change (IPCC) in 1988 in order to address the issue.[4] In the Philippines, in order to combat climate change, the government created the Climate Change Commission (CCC) through the Climate Change Act of 2009, otherwise known as R.A.

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[1] Qingchen Chao and Aiqing Feng, "Scientific Basis of Climate Change and its Response," *Global Energy Interconnection*, Volume 1, Issue 4, October 2018, pages 420-427. Retrieved from https://www.sciencedirect.com/science/article/pii/S2096511718300628.

[2] NASA, "What is Climate Change?" (2020). Retrieved from https: //www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-climate-change-k4.html.

[3] *National Geographic*, "Climate Change" (2020). Retrieved from https://www.nationalgeographic.org/encyclopedia/climate-change/.

[4] IPCC, "History of the IPCC" (2020). Retrieved from https: //www.ipcc.ch/about/history/.

9729.[5]

In the fight against climate change, we need to work together as citizens of this world. Let us not just leave the problem to our leaders, but each of us should find our significant part. In a sharp pronouncement to the leaders at the 2019 UN climate action summit in New York, Greta Thunberg courageously said that the world is already dying because of pollution and yet is ignoring it.[6] The researcher believes that more is required than just being just an activist; we can create awareness in our own workplace and community in helpful ways.

This study is not the work of a climate change expert but builds on the work of others. As a minister of the Wesleyan Church of the Philippines, the researcher pursued and consulted spiritual leaders about the issues of climate change. Pope Francis said that one of the most serious phenomena of our time is climate change. There is a need to put more effort in order to solve the climate issue, and more awareness of every citizen is needed.[7] The CCC is tasked to coordinate with other institutions, public and private organizations, NGOs, and civil society organizations to work hand-in-hand as collaborating bodies to address climate change.[8] Churches must also be included in the program of the government; the government must make churches its partner in addressing the issues of climate change. The researcher's main concern was based upon the plan of God for humanity to

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[5] The Lawphil Project, "R.A. 9279" (2020). Retrieved from https: //lawphil.net/statutes /repacts/ra2009/ra_9729_2009.html.

[6] NPR Staff, "Transcript: Greta Thunberg's Speech At The U.N. Climate Action Summit" (2020). Retrieved from https://www.npr.org/2019/09 /23/763452863/transcript-greta-thunbergs-speech- at-the-u-n-climate-action-summit.

[7] Vatican News, "Pope Francis Sends Video Message to UN Climate Action Summit" (2019). Retrieved https://www.vaticannews.va/en/ pope/ news/2019-09/pope-francis-video-message-climate-action-summit-united-nations.videomessage-climate-action-summit-united-nations.html.

[8] The Lawphil Project, "R.A. 9279" (2020). Retrieved from https: //lawphil.net/statutes /repacts/ra2009/ra_9729_2009.html.

take care of God's creation (Genesis 1:28).[9] Taking care of God's creation is not just the duty of the government but also the duty of the church and even every human being.

This study focuses on determining the level of awareness and response of Wesleyan ministers in Pangasinan of climate change in order to develop a framework for climate change mitigation and adaptation. The awareness of ministers is shown by their general knowledge of global climate change and their awareness of the risks that affect the Philippines. The responses are mitigation and adaptation in nature, which are the common ways that can help in delaying the fast progress of climate change and avoid the risks that climate change brings.

The respondents of this study are the pastors of the Wesleyan churches in Pangasinan. These are pastors recognized by the Wesleyan Church of the Philippines through the District Conference as ministers, whether student minister, licensed minister or deacon/deaconess, or ordained minister or ordained deacon/deaconess. The descriptive survey method was used with a questionnaire as the main instrument in collecting the data. All the data were consolidated and analyzed through frequency counts and percentages in order to address the stated problems.

This study will give an actual picture and information and create a new program to the following: a) Wesleyan ministers will be able to see their actual awareness and response to climate change and may adopt a mitigation and adaptation framework. Although ministers are known as spiritual guardians, yet it is also biblical that ministers are part of God's original agenda to take care of God's creation (Genesis 1:26-28). b) The result of this study will also show the extent and effectiveness of the government's (CCC) campaign to address climate change issues. c) And through the influence of the ministers, the Wesleyan Church members will be encouraged to follow a climate change mitigation and adaptation program that will lead

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[9] New International Version. *The Holy Bible* (Michigan: Zondervan, 1984).

them to a Bible-based, sustainable, and healthier lifestyle.

Objectives of The Study

This study aims to deal with the following specific problems:

1. Determine the profile of Wesleyan ministers in relation to the following:
   a. Age
   b. Civil status
   c. Gender
   d. Educational attainment
   e. Ministerial status
   f. Years in the ministry
   g. Number of vehicles/motorcycles
   h. Number of appliances used at home
   i. Number of seminars attended sponsored by the church
   j. Number of seminars attended sponsored by the government.
2. Determine the awareness of Wesleyan ministers concerning the following:
   a. Causes of global climate change
   b. Impact of climate change.
3. Determine the Wesleyan ministers' sources of information on climate change.
4. Determine the activities Wesleyan ministers observed in the locality that contributes to climate change.
5. Find the level of response of Wesleyan ministers on climate change.
6. Develop a climate change mitigation and adaptation framework for the Wesleyan ministers.

Materials and Methods

The researcher used the descriptive survey method of research with the questionnaire as the main instrument in the collection of data. The questionnaire was made as simple and as clear as possible so that it would be easily understood by the respondents. The data were supplemented by informal interviews and observations to verify some of the responses in the

questionnaire and to gain additional information needed to give more substance to the study.

The respondents of this study were 79 pastors of the Wesleyan Church of the Philippines in Pangasinan who are duly recognized by the District Conference as ministers. The researcher distributed the questionnaires to all the ministers and had a chance to see some of them and their local churches.

The researcher selected the ministers of the Wesleyan Church in Pangasinan who are assigned to different churches in the province. There are two (2) district superintendents supervising the churches and the ministers in the area. The Wesleyan ministers and their churches are located in the following municipalities/cities: Bolinao, Burgos, Agno, Alaminos, Aguilar, Mangatarem, Urbiztondo, Malasique, Sta. Barbara, Dagupan, Laoac, Urdaneta, Sta. Maria, Tayug, San Quintin, Rosales, Umingan, Binalonan, San Manuel, Pozzorobio, and Sison.

The survey questionnaire that was used in this study was formulated based on the common scientific findings on climate change. The researcher based the questionnaire on awareness of climate change from the Climate Reality Project and from the Philippine Climate Risk index. The questions about the response to climate change are the common mitigation and adaptation responses to climate change.

In order to establish the validity of the questionnaire, the research instrument was pre-tested and evaluated by Wesleyan ministers from other Wesleyan Church districts. The result of the pre-test and evaluation helped the researcher to redesign, reword, restructure, and remove unnecessary items in the survey questionnaire.

There were several steps in the gathering of data in order for the study to be completed. The researcher wrote a letter to the two District Superintendents (DS) in Pangasinan asking for permission to do his study in their respective districts. Moreover, the District Superintendents were informed of the purpose of the researcher and were encouraged to ask their ministers

to participate in the study. Upon the approval of the District Superintendents, the questionnaires were given to the ministers.

All the data were consolidated and were analyzed by the official statisticians of Pangasinan State University, School of Advanced Studies. SPSS was the main tool in the treatment of data. Frequency counts and percentages were used to address the stated problems in the study.

Results and Discussion

Table 1 shows the distribution and percentage of the respondents according to gender, age, civil status, educational attainment, ministerial status, and the number of years in the ministry.

It can be noted from Table 1 that there are more male ministers (54.43%) than female ministers (45.57%), and most of them are ages 40-59 (43.04%). The number of female ministers shows that the Wesleyan Church of the Philippines in Pangasinan welcomes female ministers, and this is true to all Wesleyan Churches all over the world. According to the article, "The Divide Over Ordaining Women," other major religious groups, namely Roman Catholics, Southern Baptists, Mormons (Latter-day Saints), Muslims, Missouri Synod Lutherans, and the Orthodox Church in America, do not ordain women or allow them to lead congregations[10] Women ministers in all Wesleyan churches are allowed to lead and can be ordained. Most of the ministers are college graduates (79.75%), and very few of the ministers took further studies after college. There is only one minister with a doctorate degree and only three ministers with a master's degree. It is notable that most of the respondents are ordained ministers (44.30%). In the Wesleyan Church of the Philippines, an ordained minister is the highest ministerial status, and ordination is the highest honor that is given to ministers.[11] Finally, it can be noted that the greater number of ministers (35.44%) are just

[10] David Masci, "Divide Over Ordaining Women" (2014). Retrieved from https://www.google.com/amp/s/www.pewresearch.org/fact-tank/2014/09/09the-divide-over-ordaining-women/%3famp=1.

[11] The Wesleyan Church of the Philippines, *The Discipline of the Wesleyan Church*

in their first to fifth year of ministry, and this is followed by those who are more than 20 years (30.38%) in the ministry.

Table 1
Profile of the Wesleyan Ministers

Variable		Frequency	Percent
Sex	Male	43	54.43
	Female	36	45.57
Age	17 - 19	2	2.53
	20 - 39	28	35.44
	40 - 59	34	43.04
	60 and above	15	18.99
Civil Status	Single	14	17.72
	Married	62	78.48
	Widow	3	3.80
Educational Attainment	High School Graduate	12	15.19
	College Graduate	63	79.75
	With Master's Degree	3	3.80
	With Doctorate Degree	1	1.27
Ministerial Status	Student Minister	4	5.06
	Licensed Minister	24	30.38
	Licensed Deacon/ Deaconess	5	6.33
	Ordained Deacon/ Deaconess	11	13.92
	Ordained Minister	35	44.30
Number of Years in the Ministry	1 - 5 years	28	35.44
	6 - 10 years	11	13.92
	11 - 15 years	8	10.13
	16 - 20 years	8	10.13
	more than 20 years	24	30.38

(Manila: Word of Life Publishers, 2019).

Table 2 shows the frequency and percentage of the number of vehicles and appliances owned by Wesleyan ministers.

Table 2
Number of Vehicles and Appliances Owned by the Wesleyan Ministers

Variable		Frequency	Percent
Number of vehicles Owned	0	26	32.91
	1	35	44.30
	2	13	16.46
	3	5	6.33
Number of appliances Owned	0	5	6.33
	1	3	3.80
	2	17	21.52
	3	14	17.72
	4 or more	40	50.63

The table shows that most (44.30%) of the Wesleyan ministers have at least one vehicle at their disposal. A vehicle is not really a status symbol but perhaps a necessity, especially for ministers since they need to travel and visit their parishioners from time to time. For some people, a car is a status symbol, but it should not be for ministers.[12] Furthermore, the table shows that 50.63% of the respondents are enjoying the benefits of using four or more appliances at home. In the Wesleyan context, it is not a sin to have vehicles as long as a person needs one and can afford it, and neither is having appliances considered a sin. Appliances like television, washing machine, refrigerator, electric fan, gas stove, and the like are already necessities nowadays.

[12] Elona Pojani, et. al., "Cars as a Status Symbol: Youth Attitudes Toward Sustainable Transport in a Post-socialist City," *Transportation Research Part F: Traffic Psychology and Behaviour*. Volume 58, October 2018. Retrieved from https: //www.sciencedirect.com/science/article/abs/pii/S1369847817302930.

Table 3 shows the distribution and percentage of respondents according to the number of climate change seminars they have attended.

Table 3
Number of Climate Change Seminars Attended by the Wesleyan Ministers

Variable		Frequency	Percent
Church-sponsored Seminars	0	40	50.63
	1 - 10	21	26.58
	11 - 20	6	7.59
	more than 20	12	15.19
Government and NGOs-sponsored Seminars	0	52	65.82
	1 - 10	20	25.32
	11 - 20	3	3.80
	more than 20	4	5.06

Based on the table above, Wesleyan ministers are not really saturated with climate change seminars. Most (50.63%) and more than half of Wesleyan ministers have never attended a climate change seminar sponsored by the church. The percentage is higher for government-sponsored climate change seminars, with 65.82% having never attended. Pew Research Center (2015) found in their study that church people or religious people do not care so much about climate change[13] That might also be true to the Wesleyan ministers in Pangasinan. Government-sponsored seminars must come to the rescue if the churches do not care so much about climate change. Republic Act No. 9729 states, "It shall be the policy of the State to enjoin the participation of national and local governments, businesses, non-government organizations, local communities, and the public to prevent and reduce the adverse impacts of climate change . . . ."[14] Why not call the

[13] Pew Research, "Religion and Views on Climate and Energy Issues" (2015). Retrieved from https://www.pewresearch.org/science/2015/10/22/religion-and-views-on-climate-and-energy-issues/.

[14] The Lawphil Project, "R.A. 9279" (2020). Retrieved from https:// lawphil.net/statutes/re pacts/ra2009/ra_9729_2009.html.

attention of the ministers in the local communities? Ministers are significant public figures who can influence their congregations. Veldman et al. (2014) said that religious leaders are respected, and many people accept their authority.[15]

Awareness of Wesleyan Ministers to Climate Change

This investigation discusses the awareness of the respondents to global climate change and to the impact of climate change.

Table 4
Causes of Climate Change According to the Wesleyan Ministers

Causes	Frequency	Percentage
1. Pollution (from factories, burning of fossils)	54	68.35
2. Cutting of trees/logging/ deforestation/ kaingin	45	56.96
3. Burning of garbage	28	35.44
4. Improper waste disposal	22	27.85
5. Use of fertilizers/pesticides	11	13.92
6. Natural Calamities/volcanic eruption	6	7.59
7. Mining/quarrying	5	6.33
8. Abuse of natural resources	5	6.33
9. Natural decomposition	4	5.06
10. Intensive Fishing/Illegal fishing	4	5.06
11. Overpopulation	3	3.80
12. Intensive Farming	2	2.53
13. Poultry production (large scale)	1	1.27

Table 4 shows the distribution and percentage of the causes of climate change according to the Wesleyan ministers in Pangasinan.

[15] Robin Globus Veldman, et. al., ed., How the World's Religions are Responding to Climate Change: Social Scientific Investigations (2014). Retrieved from http://www.Routledge.com.

Wesleyan ministers in Pangasinan identified eleven causes of climate change. Of these, pollution had the highest percentage (68.35%), and overpopulation had the lowest percentage (3.80). It can be noted that most of the causes of climate change identified by the respondents fall under human activities. NASA identified most of the causes of climate change as results of human activities that release greenhouse gases into the atmosphere and eventually affect the earth's climate system.[16] Most of the greenhouse gases are produced through deforestation, land-use changes, burning fossil fuels, agriculture, soil cultivation practices, especially rice cultivation, manure management associated with domestic livestock, use of commercial and organic fertilizers, nitric acid production, biomass burning, the decomposition of wastes in landfills, and industries. NASA also identified the natural causes of climate change, such as volcanic eruption, respiration, decomposition of waste materials, and water vapor. Very few of the respondents (7.59%) identified natural causes such as volcanic eruptions and other natural calamities. This shows that in the context of the respondents, human activities contributing to climate change are very clear. Among the respondents are a few keen observers (3.80%), noting overpopulation as one of the causes of climate change. National geographic society highlights overpopulation as one of the causes of climate change.[17] However, the table also shows that among the identified causes, only two causes are known by at least 50% of the respondents, and these are pollution (68.35%) and deforestation (56.96%), while the other nine causes fall below 50%. This shows that a climate change awareness campaign is necessary in order to elevate the awareness of ministers to at least 90% or even 100% of all causes of climate change in their particular context. As a result of this study, the causes of climate change that are not mentioned are nitric acid production, water vapor, respiration, and other natural causes like changes in the earth's

[16] NASA, "The Causes of Climate Change" (2020). Retrieved from https://climate.nasa.gov/causes/TheCausesofClimateChange.

[17] National Geographic, "Climate 101: Cause and Effect" (2020). Retrieved from https://www.nationalgeographic.org/video/climate-101-cause-and-effect/.

orbit, ocean circulation and temperature, tectonic movements, and the increasing brightness of the sun.[18] Greenhouse gases and the greenhouse effect are also not identified, and the researcher wants this aspect to be explained clearly to the respondents.

Table 5 shows the impact or effects of climate change according to the Wesleyan ministers in Pangasinan. The results show that among the impact identified by the respondents, flooding has the greatest percentage (64.56%), and the least that were identified are sea-level rise, reduced water supply, and fish kill, each with a similar percentage (2.53%). Flooding is a common scenario during typhoons and thunderstorms in Pangasinan, and it is also broadcasted on televisions, radios, and social media. Sea level rise and fish kill were identified because a number of the Wesleyan ministers are assigned in Dagupan, Bolinao, Agno, and Burgos, which are very close to the sea. However, it is of great importance to highlight a slight misconception shown in the table that needs to be addressed: pollution (3.80%) as one of the impacts of climate change. Pollution is rightly considered as one of the causes and not an impact of climate change.

Table 5
Impact of Climate Change According to the Wesleyan Ministers

Impact of Climate Change	Frequency	Percentage
Flooding	51	64.56
Health problems	30	37.97
Increased temperature/global warming	21	26.58
Typhoons/Abnormal weather conditions	13	16.46
Landslide/erosion	12	15.19
Drought	11	13.92
Heavy Rain	6	7.59
Natural disasters	6	7.59

[18] Stephen T. Johnson, "Climate Change" (2012). Retrieved from https://www.britannica. com/ science/climate-change.

Destruction of the ozone layer	5	6.33
Affects farming	5	6.33
Loss of livelihood	5	6.33
Reduced food supply	4	5.06
Effect on the global economy	4	5.06
Pollution*	3	3.80
Poverty	3	3.80
Rising sea level	2	2.53
Reduced water supply	2	2.53
Fishkill	2	2.53

Note: pollution is one of the causes of climate change but is considered by some ministers as an impact.

The Climate Reality Project (2019) identified three ways that climate change affects people's lives.[19] These are effects on health, home, and food. Basically, Wesleyan ministers identified these basic effects, but in some areas, these were only a small percentage. These are the same impacts that Global Climate Risk Index identified as risks affecting the Philippines, especially typhoons, flooding, and increased rainfall in Luzon.[20] Only flooding is known as an impact by at least 64% of the respondents, and the rest fall under the 50% mark. There are other climate change impacts that were not identified by the respondents, such as loss of wildlife habitation and wildlife species, depletion of arctic ice, and the dangerous devastation due to wildfires.[21] A climate change awareness campaign is necessary in order to elevate the awareness of Wesleyan ministers to at least 90% or even 100%

[19] Climate Reality Project, "Ten Clear Indicators Our Climate is Changing" (2015). Retrieved from https://climaterealityproject.org/blog/10-indicators-that-show-climate-change.

[20] Climate Links, "Climate Risks Profile: Philippines" (2017). Retrieved from https://www.climatelinks.org/resources/climate-change-risk-profile-Philippines.

[21] Conserve Energy Future, "What is Climate Change?" (2020). Retrieved from https://www.conserve-energy-future.com/causes-and-effects-of-climate-change.php.

of all the impacts of climate change in their particular context.

Sources of Information on Climate Change

This investigation discusses the sources of information of the respondents about climate change.

Table 6
Sources of Information on Climate Change

Sources	Frequency	Percentage
Television (T.V.)	69	87.34
Radio	38	48.10
Social Media	63	79.75
Online Resources	37	46.84
Newspapers	30	37.97
Seminars	33	41.77
Magazines	22	27.85
Pastoral Messages	37	46.84
Conversation with common people	47	59.49
Conversation with experts	14	17.72
Books	24	30.38
Pamphlets	10	12.66

Table 6 shows the sources of information on climate change by the respondents. According to the table, television (T.V.) is the primary source of information (87.34%) for most of the respondents, followed by social media (79.75%) and conversation with common people (59.49%). A similar result is found in the study of Lopez and Malay (2018), indicating television and social media as major sources of climate change information.[22] Interaction

[22] Christopher A. Malay and Joshua Jener D. Lopez, "Awareness and Attitude Towards Climate Change of Selected Senior High Students in Cavite, Philippines," *Asia Pacific Journal of Multidisciplinary Researc*h, Vol. 7, 2, part III, 2019, pp. 56-62. Retrieved from http://www.researchgate.netpublication/334048488_Awareness_and_Attitude_Towards_Climate_Change_of_Selected_Senior_High_Students_in_Cavite_Philippines.

and sharing of knowledge with other people are good avenues of climate knowledge sharing, but to be with experts is also necessary. Some of the respondents (17.72%) are privileged to talk with people who have greater knowledge of climate change issues. Generally, the depiction of the table shows a balanced source of information on climate change. The use of print media like newspapers (37.97%), books (30.38%), magazines (27.85%), and pamphlets (12.66%) is still a good source of information for ministers. And it is worth mentioning that one of the sources of information on climate change is pastoral messages (46.84%).

Activities Observed in the Locality that Contribute to Climate Change

This investigation discusses the activities observed by the respondents in the locality that contribute to climate change.

Based on Table 7, use of vehicles (39.24%), burning of garbage (39.2%), and throwing of garbage everywhere (32.91%) have been highly observed by at least 30% of the Wesleyan ministers in their local communities. On the other hand, deforestation is least observed by the respondents (34.18%).

Table 7
Activities Observed in the Locality that Contribute to Climate Change

Activity	1		2		3		4		5	
	f	%	f	%	f	%	f	%	f	%
1. Burning of garbage	4	5.06	7	8.86	21	26.6	16	20.3	31	39.2
2. Use of vehicles	6	7.59	4	5.06	12	15.19	26	32.91	31	39.24
3. Land clearing/ kaingin	19	24.05	14	17.72	24	30.38	14	17.72	8	10.13
4. Massive use of fertilizers and pesticides	17	21.52	10	12.66	19	24.05	24	30.38	9	11.39
5. Large-scale poultry (chicken, ducks, etc.) production	23	29.11	15	18.99	21	26.58	15	18.99	5	6.33

6. Large-scale animal (goat, cow) production	22	27.85	16	20.25	26	32.91	11	13.92	4	5.06
7. Deforestation	27	34.18	5	6.33	26	32.91	11	13.92	10	12.66
8. Throwing of garbage everywhere	18	22.78	4	5.06	17	21.52	14	17.72	26	32.91
9. High energy consumption	12	15.19	8	10.13	19	24.05	23	29.11	17	21.52
10. Excessive use of water.	18	22.78	10	12.66	28	35.44		11.39	14	17.72

In general, the table shows that all those activities contributing to climate change listed in Table 7 are being observed by the respondents in Pangasinan. This means that the province of Pangasinan must also act in order to limit these activities contributing to climate change and find ways to make and implement climate change mitigation and adaptation strategies. No wonder why on December 5, 2018, Pangasinan held its first climate change summit in Lingayen.[23] Governor Amado Espino III urged the participants to act and respond to the threats brought by climate change. On the said climate summit, Vice Governor Jose Ferdinand Z. Calimlim, Jr., said that the provincial government would surely make an effort in easing the effects of climate change in localities of the province through legislative agenda. On March 13, 2019, another significant event was held in Pangasinan to address climate change concerns. The Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) held a climate outlook forum to deal with climate change concerns in the province of Pangasinan.[24] The forum aimed to call for a

[23] Province of Pangasinan, "Climate Change Summit" (2018). Retrieved from https://www.facebook.com/pangasinan.gov.ph/posts/provincial-government-stages-1st-climate-change-summit-lingayen-pangasinan-stake/28660612600 86586.

[24] PAGASA, "Climate Outlook Forum" (2019). Retrieved from https://news.mb.com.ph/2019/03/15/pagasa-holds-climate-outlook-forum-in-pangasinan/.

better understanding and action in dealing with climate change issues and thereby to call for practical mitigation strategies.

Level of Response of the Wesleyan Ministers to Climate Change

As shown in Table 8, Wesleyan ministers in Pangasinan have a high response to climate change except for a moderate response on items 8-10, which are choosing organic food, choosing organic materials, and sharing of climate change knowledge. The results show that the respondents highly practiced conserving gas (45.57%), followed by conserving water (43.04%) and conserving electricity (43.04%). The respondents indicated that sharing climate change knowledge to others is least practiced (13.92%), followed by choosing organic materials (10.13%), choosing organic food (10.13%), and avoiding burning garbage (10.13%). The overall average weighted mean (OAWM) on the level of response of Wesleyan ministers in Pangasinan to climate change is 3.76, which is equivalent to "highly practiced" (HP). In their study, Lubos and Lubos (2019) found that the knowledge, attitudes, practices, and action of their respondents were on a moderate level, and they interpreted that these factors did not do much in involving them in climate change activities.[25] Hence, intervention is needed to improve awareness and action.

Table 8
Level of Response of the Wesleyan Ministers to Climate Change

Response	1		2		3		4		5		AWM	Descriptive Rate
	f	%	f	%	f	%	f	%	f	%		
1. Avoid burning	8	10.13	3	3.80	23	29.11	20	25.32	25	31.65	3.65	HP

[25] Leslie Lubos and Lalevie Casas Lubos, "Knowledge, Attitudes, Practices, and Action on Climate Change and Environmental Awareness of the Twenty-two Villages along the River Banks in Cagayan de Oro City, Philippines," *Journal of Earth Science and Climatic Change*, Vol. 9, 2018. Retrieved from https://www.researchgate.net/ publication/333917112_Knowledge_Attitudes_Practices_and_Action_on_Clmate_Change_and_ Environmental_Awareness_of_the_Twenty-two_Villages_along_the_River_Banks_in_ Cagayan_de_Oro_City_Philippines.

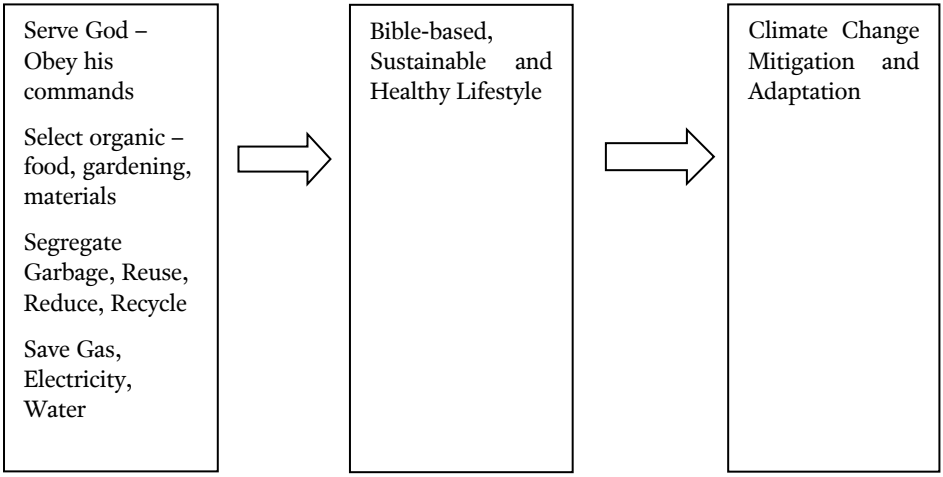
garbage												
2. Segregate garbage	3	3.80	8	10.13	18	22.78	19	24.05	31	39.24	3.85	HP
3. Reduce, reuse and recycle materials	4	5.06	6	7.59	22	27.85	21	26.58	26	32.91	3.75	HP
4. Conserve electricity	4	5.06	5	6.33	16	20.25	20	25.32	34	43.04	3.95	HP
5. Conserve water	2	2.53	4	5.06	15	18.99	24	30.38	34	43.04	4.06	HP
6. Conserve Gas	2	2.53	5	6.33	11	13.92	25	31.65	36	45.57	4.11	HP
7. Plant Trees/ Flowers	6	7.59	4	5.06	14	17.72	24	30.38	31	39.24	3.89	HP
8. Choose organic materials	8	10.13	8	10.13	22	27.85	22	27.85	19	24.05	3.46	MP
9. Choose organic food	8	10.13	10	12.66	21	26.58	20	25.32	20	25.32	3.43	MP
10. Share climate change knowledge with others	11	13.92	5	6.33	22	27.85	19	24.05	22	27.85	3.46	MP
OAWM											3.76	HP

Rate Descriptive Equivalence

5 Very Highly Practiced - Practiced 81 – 100% of the time
4 Highly Practiced - Practiced 61 –80% of the time
3 Moderately Practiced - Practiced 41 – 60% of the time.
2 Fairly Practiced - Practiced 21 – 40% of the time.
1 Least Practiced - Practiced 1 – 20% of the time.

Finally, based on the data gathered, a climate change mitigation and adaptation framework are developed.

Climate Change Mitigation and Adaptation Framework for the Wesleyan Ministers in Pangasinan



1. Implement Gardening – Church (District) to the ministers - members
   - Gardening can be done in the backyard, rooftop, or any space that can allow plants to grow (trees, flowers, vegetables)
   - Since the respondents have limited space in their assigned churches, they can use containers for planting – any container will do – recycled and reusable materials must be encouraged.
   - The advantage of container gardening is being able to move your plants if it is too hot, too cold, windy, during typhoon and flood.
   - Segregation of garbage must be imposed – some will be recycled, reused and biodegradable materials must be placed in a compost pile/pit to be used as fertilizers.
2. Implement Walking/Biking – Church (District) to the ministers - members
   - When visiting parishioners or going for an errand nearby, walk, if necessary use a bicycle.

Conclusions and Recommendations

Based on the findings of this study, the following conclusions were generated:

1. Unlike other denominations, the Wesleyan Church allows women to the pastoral ministry and have the same privilege as men of being ordained. Most of the ministers are college graduates, and a handful pursued graduate studies to further their professional growth and development. Most of them are ordained ministers, and the greater number is just in their first to fifth year of ministry. Furthermore, most of the respondents have a vehicle at their disposal and enjoy the benefits of using four or more appliances at home. Most of the Wesleyan ministers have never attended a climate change seminar sponsored by the church, and almost all of them have never attended government-sponsored climate change seminars.
2. The Wesleyan ministers have limited knowledge on the causes and impact of climate change.
3. The Wesleyan ministers rely on various sources of information on climate change, including pastoral messages and online resources.
4. Activities contributing to climate change are being observed in various localities, including the use of vehicles, burning of garbage, and throwing garbage everywhere.
5. Conserving energy is the common response of Wesleyan ministers to climate change.

Based on the conclusions generated, the researcher recommends the following:

1. Wesleyan ministers can become climate change mitigation and adaptation agents if they are given proper training. The Wesleyan Church can provide climate change seminars for the Wesleyan ministers.
2. The Wesleyan churches or ministers can initiate a partnership with government and non-government agencies in the climate change agenda.
3. Ministers are encouraged to go for further studies, and they may also explore other means to widen their professional armory.

4. Ministers must continue getting updated information on climate change by reading books, magazines, and online resources to enrich their awareness.
5. Wesleyan ministers should continue to conserve renewable and non-renewable energy, choose organics, and share climate change knowledge.
6. Wesleyan ministers may adopt the climate change mitigation and adaptation framework to have a Bible-based, sustainable, and healthier lifestyle.
7. Future researchers may conduct a parallel study to other agencies of the government covering other variables that this research was not able to cover.