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Editorial: Save the Planet!

In this eighth issue of *EJAIB* for 2020 there are 13 papers on environmental ethics, bioethics, COVID-19 pandemic ethics and medical ethics topics from around the world. The *Statement on Environmental Impacts of the COVID-19 Pandemic* is the sixth statement from the World Emergency COVID19 Pandemic Ethics (WeCope) Committee. It is addressed not only to governments, but also educators, citizens and all organizations. There are also several papers in this issue on the concepts of what is a new normal or new world order, that feed into ongoing work by the WeCope committee.

The accompanying background paper provides more academic rationale for the Statement and raises a number of questions of how the positive impacts to the environment that have been associated with the economic slowdown and social distancing policies, may be used as a renewed opportunity to recommit ourselves to the environmental commitments countries of the world, and people, have made to reduce carbon dioxide emissions, reduce biodiversity loss, and generally save the planet. There are also papers by Suma Parahakaran on the wildlife trade, and Alex Waller presenting the results of public surveys on air pollution in Thailand. Mallari and Bayod present detailed data to examine the impacts of a family-based reforestation program in the Philippines. Papers by Ryan Maboloc and others explore the new normal.

Michael Cheng-tek Tai addresses some global ways to integrate bioethics globally. The need for practical bioethics has been raised in the **Eubios International Bioethics Declaration** in 2002, and in this issue, Jahid Siraz et al. study the role of volunteering with comparisons from Bangladeshi Migrant Workers in Malaysia and Indigenous Communities of Bangladesh, and show how people can exercise practical bioethics during the COVID-19 pandemic. We have seen many people all around the world come out in solidarity to help those in need, and we can see many vulnerable persons as discussed in the September 2020 issue.

Holistic approaches to bioethics are presented in a range of papers, mostly from the **International Public Health and Bioethics Ambassador Conference** series. IPHA10 will be held on 1-3 October, just after the publication of this issue of *EJAIB*. Some of those and other papers await readers in the 2021 issues of *EJAIB*.

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Statement on Environmental Impacts of the COVID-19 Pandemic

World Emergency COVID19 Pandemic Ethics (WeCope) Committee (13 September 2020)

As an independent, multidisciplinary and cross-cultural committee, comprised of experts from cultures and nations across the world, we offer the following recommendations on the environmental impacts of the COVID-19 pandemic.¹

- 1) Everyone and all organizations and countries should adopt the Earth Charter
- 2) All countries should implement the Environmental Treaties they have already signed and ratified.
- 3) Everyone and all organizations and countries consider the level of consumption that is necessary that is compatible with sustainable living.
- 4) The destruction of rain forests and other critical biodiversity hotspots should be stopped immediately. In return for stopping the destruction of these spaces, the indigenous people who are home to these places should be given all kinds of incentives to continue to be the guardians. Where possible this assistance can be provided through countries which should enact laws to protect both the guardians and biodiversity hotspots.
- 5) Representatives of surviving indigenous communities should be formally represented on all national and international forums so that together all Peoples with humility can learn the art of protecting Mother Earth.
- 6) Effective public health policy must recognize the importance of interactions between humans and animals to reduce zoonotic diseases. Policy makers should consider the agency of animals in both rural and urban areas.
- 6) Effective public health policy must recognize the importance of interactions between humans and animals to reduce zoonotic diseases. Policy makers should consider the agency of animals in both rural and urban areas. All countries may adopt the "One-Health" model of healthcare, that recognizes the connections among humans, animals, and the environment as a whole.
- 7) Urban transformation policies must be implemented. There is a need for access to healthy behaviors including green spaces, sanitation, clean water, and so on. We must reduce displacement of residents of lower economic levels from natural habitats for setting up of commercial industries and factories and directing foreign aid towards achieving that purpose.
- 8) Reduction of poverty must be achieved, because not only does it harm people but it also harms the environment. Creating alternative arrangements within the villages including good education facilities, alternative cash and food crops, good infrastructure, and so on to reduce rural to urban migration and over population in cities, by altering the pull and push effects of poverty.

9) As we emerge from the pandemic, it is timely to reflect on how non-essential motorized travel can be reduced from the previous norms in order to reduce environmental pollution, and to continue our reflections on the definition of non-essential. The balance between human need and desire is a critical ethical issue, and the WeCope Committee Statement on Autonomy and Responsibility is useful in reflection.

9) As we are trying to emerge from the pandemic, it is timely to reflect on how non-essential motorized travel can be reduced from the previous norms, and car pooling encouraged in order to reduce environmental pollution, and to continue our reflections on the definition of non-essential. Also all should encourage public transportation which is lower on CO₂ emission per capita per mileage covered, and focus on developing no-carbon emission public transportation, electric vehicles charged with clean PV power and so on. The balance between human need and desire is a critical ethical issue, and the WeCope Committee Statement on Autonomy and Responsibility is useful in reflection.

10) New buildings should architecturally passively designed, wherever possible have energy efficiency audited, cost effective methods of renewable energy supply installed, as well as introducing thermally insulated walls, roofs and external openings, recycle water, increase the green areas, where as governments should provide financial incentives for this transition. However, existing buildings should also be shaded and ventilation enhanced in hot climates. In cold climates existing buildings should have their thermal insulation upgraded supported with subsidies.

11) Local production should be encouraged. Innovations should be adopted, such as environmentally appropriate vegetable gardens, fruit trees and aquaculture at homes and public places for better hygiene, nutrition and health, as we face a pandemic.

12) There should be enhanced and transparent communication and use of all appropriate technologies for surveillance of pandemics, monitoring environmental data including internal and external air quality.

13) Educational policies related to integrating traditional, indigenous wisdom and their spiritual practices should be integrated into the curriculum. Interdisciplinary knowledge, theory and practice for sustainability issues existing locally and globally provide concrete examples of knowledge for the preservation and conservation of wildlife and protection of species that are useful in education.

14) Educational policies to include the human/animal/plant nexus as well as zoonotic and plant diseases should be integrated into the environmental and sustainability education curriculum.

15) Reflections and alternative world-views that provide the perspectives of all living beings can be identified in every culture, and frameworks for discussion of the bioethical dilemmas in the curriculum in every country

¹ This Statement draws on ideas and literature from many sources, and developed from a background paper, that follows this Statement (Darryl Macer, Abhik Gupta, Deborah Kala Perkins, Lakshmi Vyas; Nilza Maria Diniz, Suma Parahakaran, M. Selvanayagam, Ayoub Abu Dayyeh, Layne Hartsell, Thalia Arawi, Mihaela Serbulea, Nader Ghotbi,

(2020) Environmental Impacts and Implications of the COVID-19 Pandemic, *EJAIB* 30 (8) (October):) and benefited through comments from other persons as well. https://www.eubios.info/world_emergency_covid19_pandemic_ethics_committee

benefit from intercultural dialogue from the perspective that we, human beings, have as a member of our world, with all beings. The promotion of intercultural and interfaith dialogue which enables the younger generation to view common lessons will promote global well-being and stewardship for the environment and a responsibility to bequeath it healthy for future generations.

The evidence from the past decades of bioethics and environmental education leave no ambiguity - these discussions are welcome by students, and lead to better educational outcomes in students minds and hearts as part of every nations responsibility to prepare a mature community that is better prepared to discuss and make some tough decisions, such as those listed above.

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Environmental Impacts and Implications of the COVID-19 Pandemic

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Preamble

This background paper provides the context to the recommendations of this paper, that were adopted by the full World Emergency COVID19 Pandemic Ethics (WeCope) Committee as the **Statement on Environmental Impacts of the COVID-19 Pandemic** (13 September 2020). This paper is published in *Eubios Journal of Asian and International Bioethics* 30 (8) (October 2020), 402-422.

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1. Environmental impacts of COVID 19 Shutdown

In a short span of time, SARS-CoV-2 corona virus and COVID-19 has disrupted the world order and normal life. What we call the "shutdown" is a closure of many schools, offices, shops, and businesses in the majority of countries around the world. Since a high proportion of the human population was "locked" at home, with few people on the streets, trains, cars, trucks, flights and a number of other activities have come to a standstill. What happened? In accordance with the ethical principle of non-maleficence, and the dread of death or in order to save the lives of citizens, a temporary "lockdown" was enforced in most countries as a public health measure. The governance, community and public health aspects of these policies are considered in other papers of the World Emergency COVID19 Pandemic Ethics Committee (WeCope).² In this paper we explore some of the

²

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environmental impacts and related issues of the first six months of the COVID-19 pandemic.

In many cities the animal kingdom had a good respite, particularly birds, insects and bees could move freely. Depending where we live, it may have been flamingos visibly present, wild boars, of elephants, nilgai, bear, wild goats, dolphins, antelopes, deer, hippopotamus and number of other animals being spotted in areas where human activity had otherwise dispelled them.³ In cases where these animals were fed through tourism, there have been cases of hunger as well, both in wild-life parks and in zoos. We are also tragically witnessing extensive human hunger⁴ and displacement; the toll of suffering of humanity due to hunger resulting from the poverty and toppled economies induced and by the COVID shutdown may more than triple the number of deaths from the virus. In this report we address some of these issues.

Regarding the environment, ecological responses to the shutdown were an outstanding expression of nature's resilience. With up to 26% mitigation in polluting agents⁵ the response included clear skies, clean rivers and oceans, animal freedom, and increased visibility. There is predicted to be substantial reduction in carbon dioxide emissions in 2020 (Le Quéré, et al., 2020).⁶ Mountains which were usually hidden by smoke became visible, from Nepal to Nigeria. This is due to combinations of a reduction in traffic, both on land and air, reduced emissions from industry and factories and reduction of particulate matter in the atmosphere. There is also a significant reduction in seismic noise, with reduced land and air travel, less fracking for oil and other industrial disturbance. The relative silence from human activity has allowed a reemergence of natural harmonics.

Even as we emerge from the COVID-19 pandemic, the threats of similar zoonotic viruses affecting us and exposing us to the twin danger of widespread morbidity and loss of life, as well as loss of livelihood and economic depression will remain. We have also seen the vulnerability of the present model of a range of areas including public health, economic sustainability, social welfare and others. In the post-COVID-19 phase, we have the opportunity to evolve a new model which lays more emphasis on ecosystem-based development and lifestyle. We need to ensure augmentation of local food and renewable energy production along with conservation of biodiversity. In this report we explore selected areas that need our attention. We refer readers to a forthcoming WeCope report that will explore the linkages between COVID-19 and the possible new world order, a new way of looking at the goals of development and the pursuit of happiness, noting that there is linkage to the environmental issues which is the focus of this report.

³ https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewidtege9OTpAhVxNXOKHSUPC9IQfjAEegQIA_RAB&url=https%3A%2F%2Fwww.theguardian.com%2Fworld%2F20%2Fmar%2F22%2Fanimals-cities-coronavirus-lockdowns-deer-raccoons&usq=A0vVaw0b4UUX1n9JLSNSCQRqMY15
<https://www.cosmopolitanme.com/life/coronavirus-is-having-a-really-positive-impact-on-the-environment>

⁴ <https://www.newyorker.com/news/q-and-a/the-coronavirus-crisis-will-lead-to-catastrophic-hunger>

2. Environmental ethics

Environmental ethics explores the relationship between human beings and the environment. Humans are a part of a society co-existing with other living creatures, which includes plants and animals. This ecocentric ideology is a very important part of our world and is considered to be a functional part of what it means to be human. Ecocentric approaches demand that in moral decisions we consider our fellow creatures (Macer, 1998). It's not only for their preservation, but also beneficial for our quality of life (Bosworth, et al., 2012). "*Environmental ethics is a branch of applied philosophy that studies the conceptual foundations of environmental values as well as more concrete issues surrounding societal attitudes, actions, and policies to protect and sustain biodiversity and ecological systems.*"⁷

Most flora and fauna as well as non-living parts of nature itself have seen positive impacts from this pandemic. It seems as if the plants and animals are reclaiming the land that we forgot to share with them or instead snatched away from them. Also, it is quite vivid that environment seems to have activated the hidden reset button that it had, to replenish itself and recover from the aftereffects of our rapid industrialization. All of these can be categorized as the positive side effects of COVID-19. For example, it was reported in India that as a consequence of lockdown, along the coast of the eastern state of Odisha, over 475,000 endangered Olive Ridley sea turtles have come ashore to dig their nests and laid eggs (maybe sixty million), according to the "Mind Unleashed".⁸

Environmental pollution is one the greatest challenges that the world is facing today, and as Leopold (1949) and Carson (1962) have written, pollution occurs when our ethics is not good. An important point is whether non-human beings only have an instrumental value or whether they also have an intrinsic value. Aristotle said that "*nature has made all things specifically for the sake of man*", which means non-human beings only have an instrumental value; they are meant to serve as 'instruments' for human beings. From an anthropocentric point of view (which lays emphasis on human beings), the use of other living elements in nature by humans is only right. Causing them harm or destroying them is wrong only because it eventually affects human life. With this view, cruelty to animals is wrong because it develops insensitivity, and not because animals *should not* be harmed (Regan, 2009). Or the felling of trees (Stone, 1972) is wrong because it eventually causes loss of food sources for humans, and not because it is simply *unethical*. According to Holmes Rolston III (1997) the protection of species is our moral responsibility as they have an intrinsic value. In his view, the loss of a species spells disrespect to nature's process of speciation. According to him, biological processes

⁵ <https://www.visualcapitalist.com/coronavirus-lockdowns-emissions/>

⁶ <https://www.bbc.com/news/science-environment-52485712>

⁷ Nature.com

⁸ <https://themindunleashed.com/2020/03/with-india-on-lockdown-endangered-sea-turtles-on-course-to-lay-sixty-million-eggs-this-year.html?fbclid=IwAR31pUL97QcvjSF5ZAfKjJgVFPpkwujwXujG4GI6SrYjasGijqjPKatE>

deserve respect. Thus, any action that translates into disregard for the environment is unethical. We refer readers to many books that explain more about environmental ethics.

We have certain duties towards the environment. Our approach towards other living entities should be based on strong ethical values. Even if the human race is considered as the main constituent of the environment, animals and plants are also important. They have a right to get a fair share of resources and lead a safe life (Bosworth et al., 2012). By our environmental degradation and over exploitation of our natural resources, we are risking the lives of future generation. We have to strike a balance between our needs and the availability of resources, so that the forthcoming generations are able to benefit for their use. Even if we are not able to leave a better environment for our future generation at least we should not deteriorate the quality of our environment and the bioresources. Therefore, it is very important to be remembered that environmental ethics is our moral responsibility to preserve and conserve nature for future generations of life and posterity.

3. Consumption

The main drivers of environmental harm from the socio economic perspectives include emissions of substances because of free movement of goods, services, capitals and workers, industry, trade, tourism, forest fires, deforestation, wildlife trade, and conversion of forests to agricultural land. Increased consumption is associated with high use of electricity and transport emissions. The quality and quantity of freshwater and groundwater is affected. Acidification, contamination and salinity of soil, and soil erosion, as also generally increased with more consumption. The divide between rural and urban areas is changing and agricultural practices affect the environment.

We can also consider the imbalance between rich and poor countries in energy consumption, fossil fuel consumption, and use of raw materials. The broad imbalance has been called by some a global apartheid (Haviland, 1997). One North American consumes several hundred times the resources of most Africans. So many indicators of quality of life vary between rich and poor countries, such as life expectancy, pollution-related diseases and leisure time. The right to personal enjoyment of a love of life is denied to many of the world's population by economic and social structures because of a lack of love shown to neighbor (Macer, 1998). Whether the time of reflection during the COVID-19 has reduced materialism is unclear at present, because one of the reasons behind reduced financial spending is also increased unemployment.⁹

The wildlife trade has contributed to loss of animals and species as biodiversity is depleted (Bosworth, et al., 2012; Parahakaran, 2020). There are existing methods to allow us all, and countries to analyse the economic, environmental and social impacts of actions, and to offer guidance on sustainability impact assessment (OECD,

2010). Examples of areas for reducing socio economic drivers which harm the environment are provided in the Appendix in Teaching Resources.

Sustainable living involves not just efficient agriculture, but also minimizing our energy use and pollution. The spirit of love is to minimize consumption and disturbance of others. It involves changing public policy and the very way people think. We must realize how important the use of new technology is when it aids this process, and work towards this goal. The type of research that is required for a transition to a lasting earth is of three broad types (Macer, 1994). One is the use of science to discover the workings of nature, such as elemental cycles, and developing technology for energy and resource conservation. Another is economic systems that are consistent with sustainable living. Recent reports suggest that technical change alone will not allow a switch to sustainable living because the global economic system may not be able to be made compatible with sustainability (Krupp, 1993). Even with an optimistic view, the time delay in global implementation of new technology would mean that the world may be very different from that of today.

We need a fresh approach to add to the battle of protecting the environment. In the long term the most important approach is a lasting change of human attitudes to those that are compatible with sustainable life. We need lifestyle change (Macer, 1994; 1998). We cannot isolate any environmental problem from the whole crisis of modern life. The environment is influenced mainly by human behaviour, national and international development, economics and politics.

The recognition that we live on "Spaceship Earth" has led to the growing acceptance of international accords, such as the United Nations Bills on Human Rights, the Law of the Sea, the Montreal Protocol to eliminate the production of ozone-depleting chlorofluorocarbons, and the Antarctic Treaty ban on mining. As Peoples of the world attempt to unite more, especially in the increasingly positive international spirit of the last few years, further agreements on global responsibility will be made. However, lasting attitude change to proper stewardship is required to save the planet. There is a danger that like the many short-lived public concerns of the last few decades, the focus on ecological survival will pass. In order to assure the permanent attitude change that is necessary for a lasting earth, we must consider how people view life (Macer, 1998).

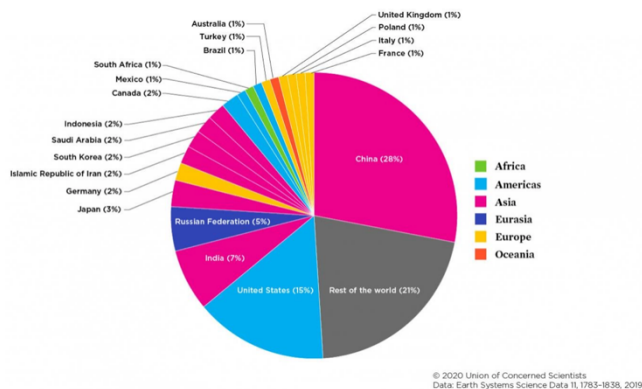
4. Fall in global emissions of anthropogenic chemicals into the atmosphere

During the early April 2020, global carbon dioxide emissions decreased by 17% when compared to the 2019 levels. After the COVID-19 shutdowns, researchers suggested that government actions and economic support will influence global carbon dioxide emissions (Le Qu  r  t et al., 2020). There are many sources of greenhouse gases (GHGs) across many sectors of economic activity.

⁹ These issues are being discussed in the WeCope Committee report on COVID-19 and the New World Order.

These include many sources such as coal-fired power plants, transportation, intensive animal production, data centers and communication networks. Even things such as smart phones¹⁰ are associated with GHG emissions in their production energy where the material extraction related to the mining activities and the energy used in manufacturing (Belkhir & Elmeligi, 2018). Some of the data is hidden. Human impact on the environment needs to be measured (COMEST, 2010) and assessed. A summary of the 2020 emissions by country is in Figure 1.

Figure 1: Carbon dioxide emissions
(Source: Union of Concerned Scientists)



Union of Concerned Scientists

Each Country's Share of CO2 Emissions

Marshall Burke, a researcher at Stanford University, calculated the improvements in air quality recorded in China may have saved the lives of 4,000 children under 5 years old and 73,000 adults over 70 years of age.¹¹ Variations of pollutant levels over the world are recorded on the website www.CovidExplore.com. Reductions in nitrogen dioxide levels are clear, but PM2.5 levels were not found to be correlated closely.

According to China's Ministry of Ecology and Environment, the average number of "good quality air days" increased 21.5% in February 2020, compared to the same period last year in Hubei province, the epicenter of the coronavirus pandemic. According to China's Ministry of Ecology and Environment, data recorded between January and March 2020 reflects an 84.5 per cent increase in days with good air quality in 337 cities, and satellite data from the United States National Aeronautics and Space Administration shows a drastic decline in nitrogen dioxide over China. "In (January and February) of 2020, NO₂ values in eastern and central China were significantly lower (from 10 to 30 percent lower) than what is normally observed for this time period," according to NASA.¹²

Although there is reduced consumption from reduced economic activity, there is increase in some forms of waste. Hospitals in Wuhan produced an average of over

200 tons of disposable Personal Protection Equipment including gloves and face masks as waste per day during the outbreak, up from the previous average of less than 50 tons.¹³ As the entire world population shifts to using masks, this is a new item of trash. Certain members of the population are at higher risk of adverse impacts from exposure to medical waste including cleaners, janitors, garbage collectors, not only health care workers.

China has asked sewage treatment plants to strengthen their disinfection routines to prevent coronavirus from spreading through sewage, mostly through increased use of chlorine. There are also reports of the virus being detected in sewage water even in December 2019 in Northern Italy, suggesting that the virus was circulating earlier than initially recognized. In the Netherlands, traces of the COVID-19 coronavirus were detected in untreated wastewater six days before the first case was reported. Traces were detected in untreated wastewater in the Swiss city of Lugano when only one case had been confirmed, and in Zurich after only six infections. Wastewater surveillance showed that community transmission in Valencia, Spain began earlier than previously believed.¹⁴

5. Environmental consequences of reduced travel

Our lifestyle choices affect our environmental footprint (Hansla et al., 2008). Air pollution has decreased as COVID-19 has slowed all travel. COVID-19-pandemic is shutting down countries across the world, causing a significant decline in air pollution in major cities as countries implement stricter quarantines and travel restrictions. However, the pandemic's unintended climate impact offers a glimpse into how countries and corporations are equipped to handle the slower-moving but destructive climate crisis. So far, researchers warn that the world is ill-prepared (REF).

Travelling by automated transport has negative effects on the local environment, including air, noise, and water pollution and on land use. These effects have implications on human health and well-being. The emissions of greenhouse gases by some transport modes also contributes to climate change, with possible impacts on the long-term sustainability of the planet. There is a need for governments to adopt policies to reduce car and air travel and promote modes of transportation with lower environmental impact.

The negative consequences of heavy automotive use include the use of non-renewable fuels, a dramatic increase in the rate of accidental death, the disconnection of local community, the decrease of local economy, the rise in obesity and cardiovascular diseases, the emission of air and noise pollution, the emission of GHGs, generation of urban sprawl and traffic, segregation of pedestrians and other active mobility means of transport, decrease in the railway network, urban decay and the high cost per unit-distance on which the car paradigm is based and contributes to climate change.

¹⁰ <https://apple.news/AWnBYF78SQHSKr0h1Z4Cklw>

¹¹ <https://www.cnn.com/2020/03/17/health/china-air-pollution-coronavirus-deaths-intl/index.html>

¹²

<https://www.earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china>

¹³ <https://hb.qq.com/a/20200310/028362.htm>

¹⁴ (PDF) *A COVID-19 Bridge Over Troubled Water*. Available from: https://www.researchgate.net/publication/343193691_A_COVID-19_Bridge_Over_Troubled_Water [accessed Jul 29 2020].

The sharp decline in commercial air travel is also reducing pollution. We are all aware of tourism, though we can see over-tourism in places like Venice, Barcelona, Paris, Florida, and so on. Another unexpected effect on the environment from the coronavirus has been seen in Venice, Italy. With tourists' numbers culled because of the virus, the waters in Venice's canals are cleaner than they have been, so much so, in fact, that fish can be seen once again in the canal's transparent waters.¹⁵ The problem includes the results of cruise ships disgorging thousands of people for half-day visits that overwhelm the destination but leave little economic benefit. There is also the rush to beaches in Thailand and Southeast Asia, since the Caribbean was already significantly destroyed. Sustainability concerns in the travel and tourism sectors extend far beyond carbon emissions.

Aviation emissions include GHGs and nitrogen oxides (NOx), water vapor, particulates, contrails and cirrus changes have additional warming effects. Cheap airline fares encourage weekend breaks that have inundated old cities such as Prague and Dubrovnik. The need for growth becomes self-perpetuating as tourism dependency locks communities into the system. Tourism is embedded in the cultural ideology as an essential pillar to achieve endless economic growth. For instance, the Australian government prioritises tourism as a "super growth industry", accounting for almost 10% of "exports" in 2017-18.¹⁶

The speed of vehicles on roads, the make of vehicles, congestion, stop-start driving conditions, size of the vehicle such as buses, coaches, trucks, and other logistics are all factors that decide the total emissions. Noise is an important product out of transportation industry depending on the nature of road surfaces, mix of vehicles on the road, the use of horns, the age of the vehicles. When a large vehicle passes near a house, the windows vibrate, and the continuous passage of vehicles has negative impact on the adjacent houses, especially along highways.

In terms of transport modes, 72% of global transport emissions come from road vehicles, which accounted for 85% of the rise in emissions in recent years. Emissions have also increased in other transport modes, such as international aviation, domestic aviation, and international and coastal shipping.¹⁷ The main exception is railways since they are powered by a significant share of electricity, rail emissions have actually declined. The 10 countries with the largest transportation emissions are (in descending order): United States, China, Russia, India, Brazil, Japan, Canada, Germany, Mexico and Iran. Together these countries contributed more than 70% of global transport emissions.

Transportation has substantial harm. The increase in motorized road traffic in most countries places an increasing incidence of accidents with 1.27 million people killed globally each year, of which 91% occur in low and middle-income countries (WHO, 2011). This may be greater than the expected annual death toll from

COVID-19 in 2020. The health risks of air pollution are extremely serious. Poor air quality increases respiratory ailments like asthma and bronchitis, heightens the risk of life-threatening conditions like cancer, and burdens our health care system with substantial medical costs.

The economic reality now needs to change to accommodate the more pressing public health reality. Grounded business travelers are realising virtual business meetings work satisfactorily. Conferences are re-organising from in person to virtual sessions. Arts and cultural events and institutions are turning to live streaming to connect with audiences.¹⁸ Staying closer to home could be a catalyst awakening us to the value of eating locally, travelling less, and just slowing down and connecting to our community.

6. Prevention and control of zoonotic viruses and other 'ecological explosions'

While COVID-19 has thrown many tough challenges before us, we already knew of at least four such pandemics that had occurred during the last 100 years. Besides the infamous 1918 "Spanish flu", there were three more pandemics in 1957, 1968, and then in 2009. Theoretical predictions about zoonotic viruses and other microbes arising due to environmental intrusion by civilization have been considered by the scientific and public health communities for decades. Charles S. Elton – one of the founders of the subject of Ecology - wrote in his book *The Ecology of Invasions by Animals and Plants* (Elton, 1958), "It is not just nuclear bombs and wars that threaten us, there are other sorts of explosions, ecological explosions. An ecological explosion means the enormous increase in numbers of some kind of living organism-it may be an infectious virus like influenza, or a bacterium like bubonic plague, or a fungus.... I use the word 'explosion' deliberately, because it means the bursting out from control of forces that were previously held in restraint by other forces." In a 1995 article in *Science*, Cohen (1995) predicted, "As more humans contact the viruses and other pathogens of previously remote forests and grasslands, dense urban populations and global travel increase opportunities for infections to spread. The wild beasts of this century and the next are microbial, not carnivorous."

The 1918 influenza H1N1 virus had genes of Avian origin. The 1957 influenza pandemic and the 1968 pandemic caused by an H2N2 and H3N2 virus, respectively, were also Avian in origin. Then there was the 2009 swine flu pandemic caused by an H1N1 virus, killing about 20,000 people. Additionally, we had the 2003 'SARS-CoV' (Severe Acute Respiratory Disease) epidemic with the causative virus suspected to have originated in the palm civet in southern China. The 2005 'bird flu' epidemic caused by an H5N1 virus fortunately did not spread among humans, but had the potential to blow into a pandemic; and the MERS-CoV in the Middle East had originated in camels. The Ebola and the Nipah

¹⁵ <https://www.france24.com/en/20200320-clearer-water-cleaner-air-the-environmental-effects-of-coronavirus>

¹⁶ <https://www.tourism.australia.com/en/markets-and-stats/tourism-statistics/the-economic-importance-of-tourism.html>

¹⁷

https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter8.pdf

¹⁸ <https://www.nytimes.com/2020/03/13/arts/music/coronavirus-pandemic-music-streaming.html>

viruses, originating from bats, pigs, and non-human primates, also affected us, albeit on a smaller scale.

We were, therefore, fully aware of the potentially dangerous nature of SARS-CoV-2, the virus that is believed to have a proximal origin from an animal, possibly the bat *Rhinolophus affinis* and / or the Malayan pangolin *Manis javanica*. As the latter species is included in the IUCN “Critically Endangered” (CR) category as well as in the Appendix I of the Convention on International Trade of Endangered Species of Fauna and Flora (CITES), the issue of COVID-19 is linked with illegal wildlife trade, especially in a large area extending from Pakistan in the west to Vietnam in the east, where three species of pangolins are found and all are hunted for their scale, claw and meat. The poaching pressure can be gauged from the fact that the Malayan pangolin, which was in a relatively ‘safe’ “Near-Threatened” (NT) IUCN category in 1996, moved to the most highly threatened CR category with 80 % reduction in its numbers by 2019. The other two species, namely the Chinese pangolin and the Indian pangolin are in CR and “Endangered” (EN) IUCN categories, respectively. Because of these and many other species involved in the wild meat trade and appearing in the ‘wet markets’ of the region, it is urgently necessary for the governments of Pakistan, India, Bangladesh, Myanmar, Thailand, Cambodia, Lao PDR, Malaysia, South Korea, Vietnam and China to come together to devise ‘demand reduction’ in body parts and meat of not only pangolin, but all wild animals and birds.

This should include all species with a significant risk of transmitting zoonotic diseases, albeit with special attention to species included in CITES, and be carried out through both legal enforcement and dissemination of awareness and education, since many wild meats such as that of pangolin is traditionally consumed by some human communities, while body parts such as claws and scales are used in folk medicine and magico-religious rituals. Increased regional cooperation in this regard is urgently required.

7. Intensive animal agriculture

Human populations dependent on livestock are not only most at direct risk from zoonotic disease but are most vulnerable to the indirect impacts on health of reduced production on livelihoods and food security, which exacerbates the poverty cycle. Industrial poultry production to reduce the risk of possible zoonotic transfer of avian influenza viruses to humans. There is considerable knowledge of the dangers to human health of intensive animal production, yet these practices continue to be rampant (Kanaly et al., 2020). Intensive farming exists to produce meat, eggs and dairy products as quickly and cheaply as possible. To keep production costs down the animals are given the bare minimum they need to survive. They are fattened in huge, dirty, cramped sheds and deprived of everything that makes life worth living. They can hardly stretch their wings or legs and will never be able to roam. An estimated 50 billion chickens are slaughtered for food every year – a figure that excludes male chicks and unproductive hens killed in egg production.

But whether they are raised on a factory farm or under a so-called ‘higher welfare’ method, all these animals will be killed at a time less than their natural lifespan. Animal Aid has conducted undercover investigations inside 11 randomly chosen UK slaughterhouses and found evidence of lawbreaking in 10 of them. This included animals being beaten, kicked and burnt with cigarettes. *The world's average stock of chickens is almost 19 billion, or three per person, according to statistics from the UN's Food and Agriculture Organisation,¹⁹ Cattle are the next most populous species of farm animal at 1.4 billion, with sheep and pigs not far behind at around 1 billion. China's vast appetite helps make it the world leader in the number of chickens, pigs and sheep, whereas beef-loving Brazil and cow-revering India have the greatest number of cattle. Expressed as livestock per person, New Zealand lives up to its reputation as the world's most productive shepherd, with 10 sheep for each New Zealander. It is also the second biggest cattle herdsman, with the equivalent of 2.3 cows per person, second only to Uruguay's 3.7. For chickens, Brunei has the highest ratio of 40 chicken for every person.*

It is reported that because of COVID-19 there is a distribution crisis, e.g. some crops in the US are being turned back into the soil because of lack of distribution. Some pigs and other farm animals are being slaughtered and destroyed to make room for more pigs although globally there is hunger. We have to raise questions about supply chain manufacturers and the unethical business by big industries.

The intensity of animal production around the world has increased substantially during the last half-century, which has led to large problems with the disposal of manures and waste waters. There should be national policies to improve nutrient management strategies for concentrated animal feeding operation (CAFOs) where nutrients are always surplus. In intensive farming systems animals are given protein rich foods like soya, which make them grow more quickly and reach a larger size, rather than the foods they would naturally eat. For example, when cows have their grass-based diet replaced, they find alternative foods harder to digest and they remain in their system for longer, increasing the risk of infections in their digestive systems

As a result of the increased infection risk, the animals are given antibiotics to keep them healthy. There are rising concerns that the extensive use of these medicines could lead to the development of antibiotic resistant bacteria, which would make bacteria that also affect humans much harder to treat (Kanaly et al., 2010).

Overall, about 20% of the world's grazing land for meat is degraded (FAO 2006) and every year the world's farmers have to feed 77 million more people with 27 billion tons less topsoil. Animal waste also contributes towards acid rain and accounts for 64% of ammonia emissions. In the last 50 years the number of people on the planet has doubled. But the amount of meat we eat has tripled.²⁰ Most of this growing demand has come from middle income countries, and particularly China, which became the world's biggest consumer of meat as its economy boomed. Agriculture is responsible for 10-

¹⁹ <http://www.fao.org/faostat/en/#data/QA>

²⁰ <https://ourworldindata.org/meat-production#livestock-counts>

12% of greenhouse gas emissions,²¹ The *World Economic Forum's Meat Forecast: The Future* made the obvious point that as the world's population heads towards 10 billion, the current trends in meat consumption and production cannot be sustained.²²

All countries may adopt the "One-Health" model of healthcare, that recognizes the connections among humans, animals, and the environment as a whole. Some countries have adopted this.²³

8. Changed approaches to conservation

In the field of conservation, it may be more ethical and prudent to develop a new strategy. At present, we have been following a highly prioritized conservation strategy, in which we protect threatened flagship species in global biodiversity hotspots that together comprise merely 2.4 per cent of the earth's geographic area, but contain more than 50 per cent of the world's endemic plant species, and nearly 43 % of the endemic species of amphibians, reptiles, birds and mammals. While continuing to take care of the endemic and threatened species, we will have to also try to achieve a more diffuse and widely spread conservation including less spectacular and "Least Concern" (LC) and "Near-Threatened" species of IUCN. In other words, we have to protect outside 'Protected Areas' and beyond 'prioritized' species. It has been observed during the COVID pandemic that all kinds of wildlife – both high profile species like rhinos, elephants and penguins as well as more common forms like wolves, civets, squirrels, lizards, and countless birds – have been entering inhabited areas taking advantage of human confinement.

We need to maintain our ecosystems in good health so as to provide food and shelter to all these species of living beings that share our environment with us, both from a narrower anthropocentric viewpoint but more importantly from biocentric or ecocentric recognitions. Many people have also expressed a kind of 'ecotherapy' by watching and interacting with these local species of wildlife, which has helped relieve the stress they were experiencing due to the confining effects of lockdown. The scheme of a more inclusive approach to conservation is given in Figure 2.

A more holistic approach towards conservation is expected to ensure local food security, livelihood safety net, and buffer stocks of natural capital to tide over temporary market depression / collapse in the wake of pandemics, especially for rural and urban poor in developing countries. On an ethical-philosophical plane, it is also expected to provide 'eco-psycho-therapeutic' support to overcome feelings of depression, isolation, and loneliness. Orientation modules could be developed for enabling people to identify with nature and recognize themselves as 'partners' and 'participants' rather than as 'outsiders' and exploiters (Zweers, 1994).

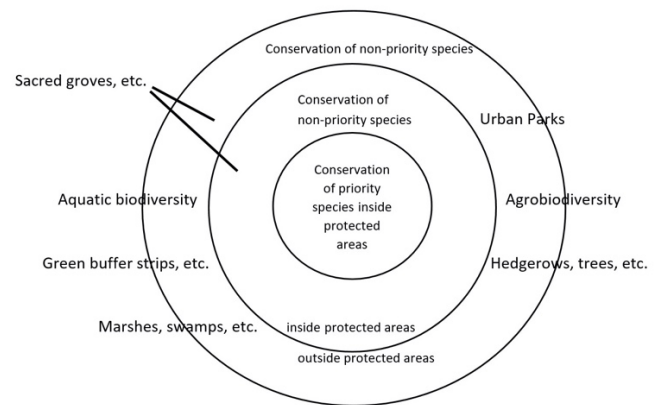


Figure 2. Post-COVID approach to conservation with emphasis on broader perspective

Maybe the renaturalization of cities can help increase the awareness of all living beings in the planet - more as a geocentric conception than simply anthropocentric, biocentric or ecocentric views. We can consider urban areas as a part of environment and overcome several prejudices, exploitation, and source of the division that people make between human beings and nature. We are part of nature and belong to nature.

Further, there have been tangible improvements in air and water quality, demonstrating the self-regulatory (cybernetic) abilities and resilience of Nature, the extent and efficacy of which we probably could not guess earlier. Thus, there is scope for an all-pervasive rejuvenation of nature, along with a restoration of local production, which we might not have realized earlier. This is the new ecosystem-centred model where global knowledge and information that will be disseminated with the aid of technology need to be coupled with local and predominantly organic agricultural production, accompanied by environment-friendly and small-scale industrial and renewable energy enterprises. These approaches should be accommodated in our post-COVID restoration plan. Conservation would have to be all-encompassing in this model, promoting sacred groves, city parks, village gardens, ponds, small streams, and other community-protected areas. One important task for this rejuvenation will be to attract the small and medium farmers back to agriculture to boost local production. Can we be imaginative and bold enough to introspect upon such a world, where co-existence with Nature along with a renewed respect for it, would become the distinguishing features? The philosophical base for this changed perspective will be provided by ecocentric worldviews, the exact nature and tenets of which will be based on the evolving perceptions about humans increasingly becoming 'partners' with and 'participants' in Nature (Zweers, 1994) in a given culture, moving away from being its owners and ruthless exploiters at times.

²¹ https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_apter11.pdf

²² http://www3.weforum.org/docs/WEF_White_Paper_Alternative_Proteins.pdf

²³ <https://www.cdc.gov/onehealth/basics/index.html>

9. Changed and integrated economic and ecological approach to an ecocentric reorientation in economic resurgence and fair-trade

The world we live has changed dramatically in 2020. We live in the Anthropocene era in a full world where humans are dramatically altering our ecological life-support system. The traditional economic concepts were developed in an empty world. From now we need a new order of the economy and its relationship to the rest of the world that is better adapted to the new conditions we face. We need an economics which respects the planetary boundaries, that recognizes the dependence of human well-being on social relations and fairness and that focuses on an ultimate goal such as real, sustainable human well-being, not merely growth of material consumption. The economy is embedded in a society and culture that are themselves embedded in an ecological life-support system. This economy cannot grow forever on this finite planet.

Ecocentrism can be interpreted in several ways. It could comprise faithfully attaching intrinsic – even religious or spiritual – values to non-human living and non-living entities in Nature. It could also transcend to an attainment of the “Self-realization” of Deep Ecology. At the same time, it could also be interpreted as eco (oikos) – centred, where we pay more attention – even to the point of reverence – to the ‘house’ (oikos) in which we live. And in doing so, we have to pay more attention to the health of the smallest units – the ecosystems – and maintain their integrity, quality and productivity.

One of the biggest stumbling blocks to a paradigm shift to ecocentrism will be our attraction to and dependence on what the Gandhian economist-philosopher J.C. Kumarappa (1957) termed as the “economy of violence” as opposed to that of “permanence” of an “economy of nature”. This barrier is also contributed by our single-minded pursuit of promoting GDP growth, which according to Costanza et al. (2014) has become a metrics that has lost its relevance and utility. These authors reason that GDP was a relevant indicator of progress when it was first introduced in the 1940s. It signified increased economic activity that generated employment and income. However, in the present context, GDP increase has led to increased depletion of natural resources, while it hampers adoption of more sustainable models of development. As examples, they cited that the oil spills due to the Deepwater Horizon rig explosion in the Gulf of Mexico in 2010, and the effects of Hurricane Sandy in 2012 led to an increase in US GDP, because they induced economic activity in terms of rebuilding. They recommended shifting to other indicators which took into account environmental costs and benefits, net profit and wealth generation, among others.

Among the alternative metrics, Costanza et al. (2014) suggested adoption of adjusted economic measures, which take into account annual income, net savings, wealth generation, along with environmental costs, such as that accruing from pollution of water bodies or destruction of forests or wetlands, as well as benefits like pollution control measures or groundwater recharge, etc. A promising index that they had cited is the Genuine Progress Indicator (GPI), which takes into account

expenditure – an essential component of GDP – but makes adjustments against factors such as volunteer work, crime, pollution, etc. It also takes into account income distribution, and therefore, the welfare of the poor and low-income groups of people. Thus, this metric may be considered more ethical and environment-friendly. A study by Kubiszewski et al. (2013) showed that GDP and GPI had high correlations between 1950 and 1978, after which they showed increasing divergence, as rising environmental and social costs began to outweigh the benefits of increased GDP.

Besides the objective metrics, subjective measures of development also need to be given more importance. Often these indicators more accurately reflect the parameters that make life more worthwhile and content and measure societal progress. Higher income boosts happiness among low-income group people, but this does not continue to increase as the income becomes higher and higher (Layard, 2005; Nettle, 2005). The World Values Survey or the Gross National Happiness Index (GNH) of Bhutan are examples of such subjective measures. The GNH addresses nine domains: psychological well-being, health, education, time use, cultural diversity and resilience, good governance, community vitality, ecological diversity and resilience, and living standards. The GNH estimates a total of 33 indicators under these nine domains to arrive at a single index number (OPHI, 2020).

A comprehensive Weighted Composite Measure integrating both objective and subjective indicators, an example of which is the Happy Planet Index of 2006 (NEF, 2006). The inadequacy of GDP has also been pointed out by the Guardian in its analysis of the impact of coronavirus on the global economy, commenting that GDP, which lacks reliability even under normal situations, would be even more inadequate in the uncertain scenario of a COVID-ravaged world (Carlsson-Szlezak et al., 2020). The Nobel Laureate economist Joseph E. Stiglitz pointed out that on the one hand measures taken to reduce pollution may lower GDP growth, while on the other, an increase in GDP indicating a high-performing economy may not be reflected in the people’s perceptions of their own standards of living (Stiglitz, 2009). The local and regional inequities of development, which have pushed the less affluent sections of the society in developing as well as many developed countries to increasing pauperization during COVID-19, is poorly reflected in GDP metrics. At the same time, the environmental gains made during COVID-19 induced economic slowdown will also not show in GDP statistics. Therefore, a mere consumption-oriented economic resurgence will not be able to properly prepare the world against any zoonotic depredations in the future.

Apart from loss of life, the COVID-19 pandemic has led to severe global socioeconomic disruption. Our present path is clearly unsustainable. We have to move to an economy of worldview and principles of ‘ecological economics’. After COVID 19 some changes are necessary including recognition that our economy is embedded in ecological life-support system and that we cannot understand or manage our economy without understanding the whole inter-connected system. True

development must be defined in terms of the improvement of sustainable well-being and not merely material consumption. A healthy balance must be struck among thriving natural, human, social and cultural assets and adequate and well-functioning produces or built assets. It can be called 'capital' in the sense of a stock or accumulation or heritage – a patrimony received from the past and contributing to the welfare of the present and future. We can consider the following forms of capital:

- **Natural Capital:** Environment and its biodiversity can be called us ecosystem -goods providing various needs such survival, climate regulation, habitat for other species, water supply, food, fibre, recreation, cultural amenities and the raw materials required for all economic production;
- **Social and Cultural capital:** The web of interpersonal connections, social networks, cultural heritage, traditional knowledge, trust and the institutional arrangement, rules, norms and values that facilitate human interactions and cooperation between people;
- **Human capital:** People and their attributes including physical and mental health, knowledge and other capacities that enable people to be productive member of society. This involves balance use of time to meet basic human needs such as fulfilling employment, spirituality, understanding skills development and freedom;
- **Built capital:** Building, machinery, transportation infrastructure and all other human artefacts and services that fulfil human needs such as shelter, subsistence, mobility and communication.

Balancing and investing in all the dimensions our wealth, to achieve sustainable well bring requires that:

- We live within planetary boundaries, within the capacity of our finite planet to provide the resources needed for this and future generations;
- That these resources are distributed fairly within this generation between generations and between humans and other species;
- We use these finite resources as efficiently as possible to produce sustainable human well being, recognising its independence with the well being of the rest of nature

Growth in material consumption is unsustainable. There are fundamental planetary boundaries. Beyond certain point they are undesirable. It has negative effects on wellbeing and social and natural capital. Human needs are basic needs for subsistence, reproduction, security, affection and so on. So what world does a sustainable and desirable economy look like? Establishments that are sustainable, effective respecting the ecological limits. For example, consumption of resources from the Earth are not faster than we develop renewable substitutes. Fair distribution by reducing systematic inequalities both internationally and within nations by improving the living standards of the poor, limiting excess unearned income and consumption and preventing private capture of common wealth. Establishment of a system effective and equitable governance and management of the social commons

such as cultural heritage financial systems and information systems.

As a result, ever increasing consumption is no longer considered an integral component of human needs. People pay attention other needs and desires, like joy, beauty, affection, participation creativity, freedom and understanding. Building strong community helps us meet these needs. Such an economy will be powered by renewable energy. The Lisbon Principles give the following six criteria for sustainable governance: Responsibility, Scale matching, Precaution, Adaptive management, Full cost allocation and Participation.

There are signs during the COVID-19 pandemic of increasing altruism on the part of local communities, e.g. food banks, the “ Pandemic of Love” – people reaching out at personal levels to help each other, and numerous other examples are contributing to changing the landscape of global compassion in the human heart. Whereas in the US due to closed markets and restaurants, while there are masses of hungry people, some of whose needs are being met by food banks, and in the Philippines farmers took food carts into the cities and villages to bring food to the people.

How can we create a sustainable world that respects both human activity and sustainable flourishing environmental conditions? Will we create behavioral changes to our overconsumption, move toward local farming and food supplies, less meat consumption, more organic farming practices that respect pollinators like bees and the healthful flow of resources. In Brazil the condition of the coronavirus is currently leading to a genocide of certain indigenous peoples as they head of state is stopping delivery of food in the interests of big agribusiness interests to usurp land for meat and other crops; this is certainly not unique in historical behaviors toward indigenous communities the world over. What will it take for us to respect the inherent value of cultures both human and in nature above selfish greed and injustice?

10. Environmental education

As a result of the pandemics and cascading disasters and challenges it is even more important than before to implement environmental ethics education through ethics-based curriculum for schools and tertiary education (Baker et al., 2019). Environmental education started gaining momentum globally after the first United Nations conference on Human Environment held in Stockholm in 1972. Subsequently the United Nations Environmental programme and International programme in environmental education (IIEP) came into existence in 1975. Despite the Decade of Education for Sustainable Development, and global bioethics education curriculum (Macer, 2006), many schools fail to implement any environmental ethics education.

A universal perspective and understanding, appreciating the inherent and powerful value of life itself is important as basis of environmental education. For almost 70 years we are understanding that all of our planet and our bodies have taken extremely complex processes over billions of years to create. We do not really offer the sense of global and universal time scale and interdependent processes to the students

throughout their education that enhances this understanding. As well it can offer powerful added perspectives with which to encounter and balance the challenges of life in this human culture. This kind of education can be integrated from K-12 level and beyond.

Environmental education must include important concepts in sustainable education for the earth's sustenance such as the importance of biodiversity. At least a million animal and plant species are in danger of extinction. Overall is a fall of at least 20% native species on average. There are also dangers related to fall of amphibian species (40%) and reef forming corals (33%). Major factors that impact the environment are 1) changes in land and sea use, 2) direct exploitation of organisms, 3) Climate change, 4) Pollution, 5) Invasive species, and 6) Human behaviour. The Sustainable Development Goals (SDGs) are one framework of targets.

A number of countries have formally included environmental education into their national curriculum, and some have also included environmental issues in their constitution. India incorporated environmental concerns in the constitution through 42nd amendment in 1976. The growing concerns about environmental deterioration in India provoked the Government of India to plan a policy for introduction of environmental education in schools.

In 2003 the Supreme Court of India gave a directions to all the States and educational agencies in the country to introduce environment as a compulsory subject in all classes in schools up to the higher secondary level from the academic year 2004-05. The University Grants Commission (UGC) instructed all its affiliated Universities and colleges to introduce a compulsory six modules course on environmental studies at all branches of undergraduate degree courses.

Globally, among important topics is agricultural use: 100 million hectares of tropical forest were lost from 1980 to 2000, because of cattle ranching (42 million hectares) in Latin America and plantations in Southeast Asia (about 7.5 million hectares of which 80% is palm oil used in food, cosmetics, cleaning products and fuel). More than 75% of freshwater is used for crop or livestock production and agricultural crop production has increased by 300%. A large amount of renewable and non renewable resources have been extracted globally from the oceans. Land degradation has reduced productivity of land by 23% while US\$ 577 billion in annual crops are at risk because of the loss of pollination. 33% of marine stocks were harvested by 2015. Urban areas have doubled since 1992. Plastic pollution has increased tenfold since 1980 and toxins amounting to 300-400 million tons of heavy metals, solvents, toxic sludge, wastes from manufacturing and industrial waste are dumped into world waters. Since 1970 the global human population had doubled (from 3.7 to 7.6 billion) and impacting the environment even more.

Contents of the link between health-environment-climate change should be integrated into the curriculum. Sustainability issues are linked with emitters of carbon dioxide and pollutants, deforestation, air and water pollution. Policy makers should bring policies related to curriculum integration of sustainability and human-environment interactions into

the syllabus. wildlife trade, illegal imports of animal products and the animal rights are other important areas which should be addressed in the curriculum. The knowledge can be transferred by linking interdisciplinary knowledge and practice for health, environment and education. Currently the disciplines are taught separately and as theoretical knowledge.

Primary Level

The future of environmental education should include stewardship ethics based environmental education so that the world family is not neglected whether they are migrants or refugees, as this calls for compassion to humans and adherence to human rights. The adverse effects of climate change and poverty has influenced a great shift in human settlements and human mobility. The disruption of fragile ecosystems and destruction of natural resources calls for both ethical governance and leadership. The World Bank reported that effective care of the environment and protection of the environment can reduce migration population by 80%. The report stated that the migration rate will include more than 140 million people (Sub-Saharan Africa, South Asia, Latin America) moving within their country borders by 2050 (WHO, 2020).

There are particular issues with children who are living in high poverty levels resulting in starvation, lack of nutrition and bad health. Migrant populations and disaster-stricken victims are vulnerable part of the population. Students should be taught on about stewardship ethics and ethics -based roles at school level.

Few curricula integrate ethics into the curriculum (Baker et al., 2018). Students, like adults, were not prepared for the emergency such as COVID-19 pandemic and hence emergency preparedness should be a part of the curriculum. What is missing in current curriculum is the pedagogical tools to integrate contents for peace education, collaborative and stewardship practices for global environmental health. Instead of concentrating on pollution and activities, transformational learning can include contents related to maintenance of the purity of water, energy and soil as refurbishing elements exist naturally in the environment.

Secondary and Tertiary Levels

Education about the animal - human - plant - microorganism nexus is another important aspect to be considered which if not paid attention to, will adversely affect human (birds) and animal health through the spread of diseases such as COVID 19, Nipah Virus and SARS. The sale of wildlife in seafood market in Wuhan and the unknown exchange of viruses and bacteria from human to animals (zoonoses) has possibly caused severe loss of lives and social and economic global impact (WHO, 2020).

Ethics based Governance and Leadership

Future environmental health of the global population depends on an ethics based education of global citizens. This will safeguard global population from further challenges related to health, economic and social conditions in the face of such a pandemic as COVID-19.

Transformational leadership is required to involve all stakeholders, transparent dealings and degree of experience. An ethical leader will also include communication with multicultural players and with an inclusive approach towards migrants and marginalised populations.

Indigenous and traditional wisdom for caring and spiritual global consciousness

Unfortunately, the few remaining areas which are projected by the remaining indigenous communities are also deteriorating with climate change. Biodiversity and ecosystem functions lie in the range of very large concentrations of indigenous people, who are often among the world's poorest communities in terms of modern economy. There is so much to learn from the indigenous people and local communities because they are adept at knowledge related to sustainability of very large areas, ecosystems, innovations and practices. From an ethical perspective, their positive contributions can be acknowledged through national recognition of land tenure, access and resource rights according to national legislation.

It is also imperative that there is an integration of indigenous knowledge systems (IKS) and wisdom in the curriculum. Indigenous, traditional, interfaith knowledge and wisdom are important factors to be considered for the world's environmental education system. Cajete (1994) emphasized that there is vast environmental wisdom from the accumulated body of experiences which modern societies can adapt to. The current environmental education do not integrate the sustainable ways and wisdom of traditional and spiritual healing mechanisms. This was reaffirmed in the Durban Statement on Bioethics (2018).

Inclusion of historical patterns of environmental events and communication management in building resistance to pandemics

Future generations will benefit from the knowledge and lessons learnt from the historical past of pandemics as well as the management of information to build community resilience to natural disease outbreaks and pandemics. These include epidemics in under water life, forest fire, pandemics, natural disasters, typhoons which are caused both by climate change and human impact.

Parental upbringing of children and ethics

Conscious parenting for the environment helps in creating and strengthening the bonds of the future generation of their children. This is an essential part of raising children with a social consciousness where children become the focal point for future stewardship of the environment. The teacher-child-parent should work as a unit and they should have common goals for building a social consciousness for environmental stewardship. These should be reflected in policies for school communities.

Dynamic parenting practices can help build stewardship and well being of the society. Parents and schools should work together for achieving common objectives related to ethics-based mindful behaviours which lead to a sustainable environment .Community

service activities such as cleaning the beaches, and preparing healthy meals together, and taking time to teach the negative impact of advertisements with fast food and unhealthy behaviours which impact children's health, are examples.

Educational Reforms

The opportunity to reflect on our lifestyles during the COVID-19 pandemic, and the new emphasis on distance education, provides an opportunity to spread awareness in students globally on reviving old wisdom and traditional practices from a multicultural perspective for global health. Environmental education policies also can consider information related to integration of new technology and modes of communication to develop a resilient community. Lessons learnt from past pandemics to be integrated into education

Policy makers who reconsider environmental education could integrate indicators related to ethical governance and stewardship for the environment for sustainable environment. Self -control and self-discipline have been developed in many citizens in the stay at home orders. The lessons also led us to consider self control in environmental exploitation. Policy makers may also be more willing to question the global practice of monetizing ecosystems for economic gains, as we have seen most governments value protection of the life of vulnerable persons more, with the consequence of some recession.

Educators need to prepare young leaders for intergenerational environment stewardship for a healthy planet. We refer readers to a future WeCope report on the implications of COVID-19 pandemic for education.

11. Conclusions

At the beginning of this paper are a series of recommendations. We are left with an opportunity to redefine popular understanding of sustainability, with respect, value and ethical relationship to sustainable development. The ecocentric reinterpretation or reorientation is more inclusive and recognizes socio-economic values in realistic balance with the natural world. It focuses greater emphasis on interdependence of humans as an intrinsic species of the total ecosphere.

The widespread deaths, job losses and threats to the global economy are far from the optimum path to decarbonized sustainable economy yet it is providing respite for the natural world. A major question is how we will emerge from this shut down. Will we change how we interact with the natural order, mitigating the pending climate challenge? Will we return to a malignant "norm", or change toward a sustainable future? What are lessons we have and are learning? We are analyzing historical pandemics and observing geophysical effects, sustained in geological records; the rapidly transforming ecology is demonstrating how quickly the natural order can regenerate with our cessation in polluting activities.

In this context, we may refer to the importance of free transfer of life- and environment-saving technology from the developed to the developing nations, as has been envisioned in the pivotal international agreement on climate change, that is, the United Nations Framework

Convention on Climate Change (UNFCCC) (United Nations, 1992). There has to be a global consensus and a philanthropic attitude on the part of the developed nations to enable this knowledge dissemination, which should energize rather than stifle decentralized development at the lowest level of living-non-living integration (ecosystems). Can we hope that instances of such sharing would be there among the characteristic features of a post-COVID, more ecocentric and altruistic world?

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Please note the electronic edition has a link to an Appendix with extensive web resources.

Exploring the wildlife trade and human impact on wildlife environment- A window to the Covid-19 incident

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Abstract

Many ecologists asserted that the increasing mass extinction of wildlife will have its impact on the overall "well-being" of the planet. The discovery of nature already demonstrates that each animal, from the smallest to the largest has some inherent qualities which supports the earth's functioning (wildlife conservation through interactive education, 2019). A sixth mass extinction of wildlife is accelerating while scientists warn that 500 species are near extinction and many have been lost in previous years (The Guardian, 2020). Our ecology bears in it animals, humans, birds and trees and a whole sort of energy bodies which are fascinating when observed from an aesthetic perspective but also instill a sense in humans, a higher universal energy governing the whole of creation which humankind is yet to come in terms with. From a scientific perspective, it is still unfathomable to logically comprehend why and how species creates and recreates itself in various geographical regions with its own unique weather conditions and inter-relativity. Factors such as poverty, greed and unethical trade have caused negative impact on both human conditions and the reduction of animal population. Other factors are; climate change, deforestation and loss of biodiversity.

This paper will discuss the cause of outbreaks of diseases specifically related to wildlife trade and the need to ban wildlife trade in open markets. An over view of global wildlife trade and some solutions are discussed in this paper. A new ethics- based

framework is required to solve the issues related to highly contentious issues related to wildlife trade.

Keywords: diseases, wildlife trade, environment, health

The global situation of illegal wildlife Trade (IWT) Human involvement with wildlife habitats

The wild-life trade has initiated several global and intergovernmental initiatives as well as conferences for dealing with the human made crises. Regulations and enforcements are seen crucial to reduce wildlife trade. These laws overlook important links for other costs and benefits that impact international wildlife trade and also overlook important incentives for Illegal wildlife trade by failing to leverage or deconstruct local monitoring and enforcement led by communities. Top down monitoring may not help efforts to thwart the current issues. If enforcements are not directed well, then there may be implications to people’s use of wildlife resources. Community involvement may help through strategically devised approaches (Cooney 2017).

The review of data reveals that poverty or socio-economic reasons is also a cause for the emergence of diseases. For example, bushmeat hunting has been a practice and a major contributor to disease emergence of some diseases (Kurpiers et al., 2016); Lassa fever in Guinea and Sierra Leone correlates to risks associated with Lassa Fever (a socio economic pressure) related to poor housing, food storage conditions in refugee camps and reasons for origin of zoonotic diseases (Bonner et al., 2007). In other cases, hunting of peri-domestic rodents as food is a risk factors for rodent-to-human transmission of Lassa virus in the Republic of Guinea Lukashevich (Meulen et al., 1996).

Loss of biodiversity, climate change and deforestation can result in zoonotic diseases. An example is the 1998 emergence of Nipah Virus from fruit bats to pig farms in Perak, Malaysia. The links of how these diseases interconnect and causal factors are not known (Pike, 2010). Lead author of Christine Kreuder Johnson, (Director of the EpiCenter for Disease Dynamics at the One Health Institute, a program of the UC Davis School of Veterinary Medicine.) had assembled a large data set of 142 known viruses which that could infect humans by animals. The findings from examined patterns in those species (Using IUCN red list of threatened species) revealed that these species faced risks of extinction. Furthermore human involvement without control was one of the causes for species decline and the reason could be of man’s involvement with both wildlife and habitats (Kerlin, 2020).

“Multiple introductions into the human population may be necessary before a zoonotic agent establishes itself as a human pathogen and the determinants of cross-species tropism are still ill defined, as are the factors that influence whether infection causes disease” (Pike et al., 2010, pp.1636-1640).

Guinea is one of the poorest countries in the world (ranked 178 of 187) according to the United Nations Development Programme (UNDP) Human Development Index (Bausch & Schwarz, 2014). Humans ate bats because of economic stress. Both deforestation and environmental factors results in bat migration. Mwangi et al. (2010) asserted that factors, such as humans,

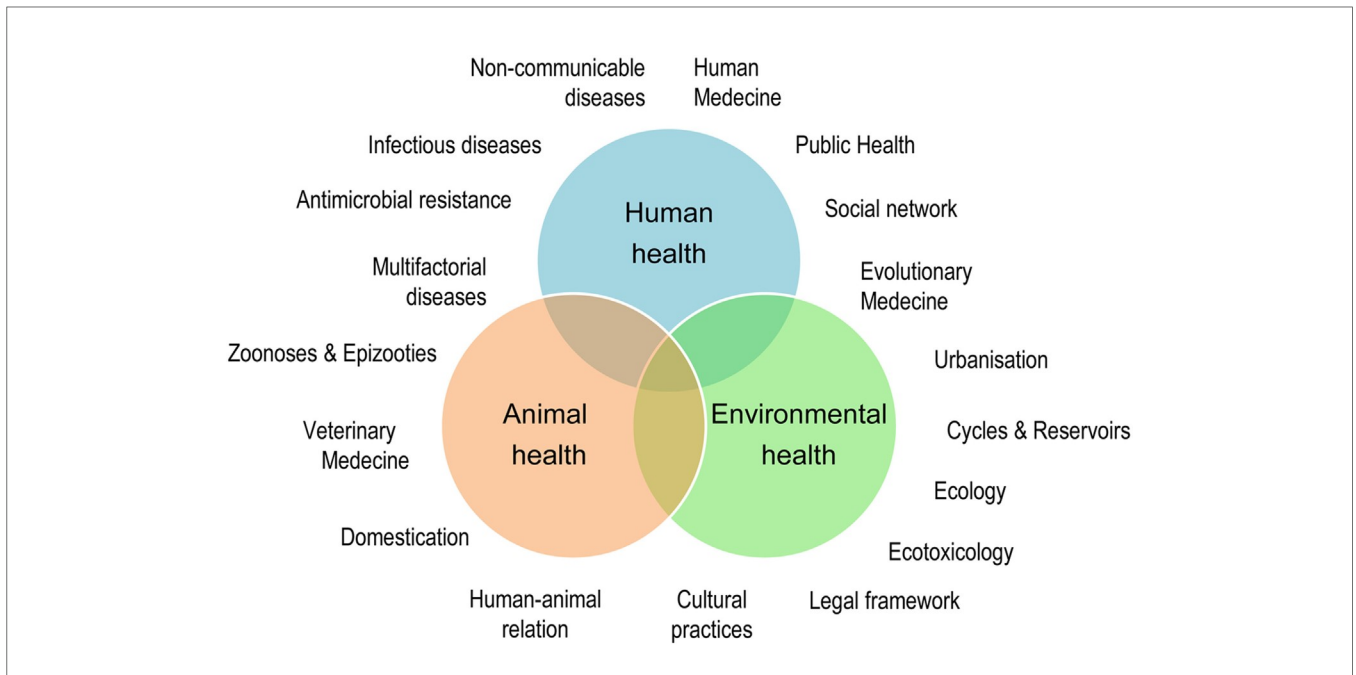
cultural practices, wild-life dynamics, animals and environmental factors were intricately connected to the outbreak of Ebola. This required all stakeholders to address the interconnected agents which support the outbreak of diseases. Delphine et al. (2018) emphasized the need to incorporate ecological, evolutionary, environmental sciences into One health so that there is effective control of both infectious and multifactorial diseases (non-communicable).

A human crowd disease has emerged in the past 11,000 years (rubella). The viruses from bats are the closest known relatives of mumps virus, and it is still unsure whether pigs infected humans or vice versa, and whether human tuberculosis is a derivative of a bacterium from domestic animal to human transmission or an ancient human mycobacterium that infects domestic and wild ruminants Wolfe et al. (2007).

Table 1: Examples of countries exporting, importing and exporting (wild-life trade)

Countries	Importing wildlife		
EU	mammals, birds, reptiles, fish, coral and molluscs.	Food and commercial purposes	Van Uhm (n.d) UN reports
China, Korea, Japan	Turtles, Snakes, frogs Vietnam (240 tonnes of turtles— representing more than 200,000 individual turtles— were exported from Vietnam each year for sale in China in 1994.)		Van Song (2008)
Countries	Exporting wildlife Trade		
Southeast Asia	Live corals (Indonesia)		Nijman (2010)
Southeast Asia	Butterflies (Malaysia) Seahorses (Thailand), fish (other than seahorses), reptiles (snakes, turtles, lizards), mammals and birds.	Skin and bodies	Nijman (2010)
Congo basin and Gabon	Bushmeat from non human primates	Bushmeat	Georges-Courbot M.C., et al., (1997)
Guinea	Bats	Food	Bausch D.G. and Schwarz L., (2014)

Wild-life Trade at a Global Scale



[The One Health concept: a holistic, transdisciplinary, and multisectoral approach of Health.

Data revealed that 35 million individual CITES-listed animals originated from Southeast Asia during 1998-2007. 30 million of these are wild caught animals and 4.5 million from captive breeding. Malaysia, Indonesia, Vietnam and China are the biggest exporters of the major species groups while the European Union and Japan are major importers of wild caught animals. China and Singapore and to some extent Malaysia are significant importers of wild caught wildlife from Southeast Asia. China is the end destination of these imports while Singapore (pangolins and reptile skins) and Malaysia (birds) are less consumer countries but re-export their Southeast Asian imports (Nijman, 2010).

Table 1 provides a summary of some of the illegal trade. According to the reports from the UN from 2008 to 2013, there were many organized crime groups for illegal wildlife trade (IWT) including by Chinese, Japanese, Italian and Russian groups.

The Wo Shing group were linked to ivory, rhino horn and shark fin. Illegal trading of endangered parrots by the Neopolitan Mafia and illegal Caviar trade by Russian organised groups, including poaching of tigers and bears (ECOOC, 2002, 2003, Wyler and Sheikh, 2008) in van Uhm (n.d). Other IWT included the Chinese organized crime groups in Hong Kong with derivatives of endangered species to European companies (Europol, 2011).

In some cases there was exchange of drugs for animals in Brazil, Colombia and Mexico, who supplied drugs to Europe (EU 2011).

The total number of shipments accounted for 22204 animals and animal products seized in the EU between 2001 and 2010. These shipments came from both Africa (5219 shipments) and Southeast Asia (3694 shipments) and other countries totaling 207 countries. (van Uhm, 2016). Wildlife seizures imported to the USA reports revealed that from 2003 to 2013, more than 2.5 million animal products and more than 90 thousand live animals were seized. The smuggling goes undetected and most of the animals seized were mammals and reptiles. They generally include six wildlife and fish groups such as

molluscs, birds, reptiles, fish and corals (Gohar et al., 2016). Dr John Behler (Chairman of Chairman of the freshwater tortoise and turtle specialist group at the International Union for the Conservation of Nature and Figure 1: The One Health concept: a holistic, transdisciplinary and multi-sectoral approach of Health Source: Destoumieux-Garzón et al. (2018) (Reproduced with permission)

Natural Resources) stated that Southeast Asia has been exhausted of its turtles for food markets in China.

The data from Table 1 reveal some of the illegal wildlife trade activities by humans. To blame that the “virus is a culprit” for human diseases and blaming animals for the spread of disease may not be appropriate. From a human health perspective, it can be noted that animals spread diseases from animals while the global health data reveals a problematic animal-human- wildlife nexus which has originated from the increase of population, socio economic factors and illegal wildlife trade.

“One World - One Health” concept was created in 2004. The novelty was the incorporation of the eco-system health, including that of wild fauna. The “One Health” initiative therefore constitutes a global strategy highlighting the need for an approach that is holistic and transdisciplinary and incorporates multisector expertise in dealing with the health of mankind, animals, and ecosystems (Destoumieux-Garzón et al., 2018).

Global Environmental Ethics

To save the extinction of animals through wildlife trade and consumption of the animals as food, social justice as well as environmental ethics have to be integrated into the education. The reports on wildlife trade has provided some important suggestions which are listed below; For example, the authors suggest that in the case of trades in USA,

- There needs to be an increase in the surveillance at US entry points as the effort taken to ensure the safety of animals is lower compared to the drug trafficking;

- Increasing controls of wildlife exports from major countries and they need to be informed of the increased risk of bringing in wildlife products or live animals;
- US customs to declare authorities of shipment that they do not carry wildlife or products;
- Exporting nations to be identified and screening to be more vigilant (Gohar et al. 2016).

Social Justice and Environmental Ethics

The five sustainability principles in African environmental ethics can offer some values for poaching. These principles were first presented at STIAS Wallenberg Research centre, Stellenbosch University, South Africa in 2017.

- Principle of Accommodation: Act in such a way that nonhuman existents and future people are considered and accommodated in your daily decisions and dealings.
- Principle of Gratitude: Act in such a way that reflects your gratitude towards other existents, humans and nonhumans, for contributing to support your beingness or existence.
- Principle of Restoration: Always act to restore to Nature the loss you have caused it. For example, replanting a tree after felling one.
- Principle of Control: Act in such a way that you control your action from producing too much negative externalities.
- Principle of Necessity: Act on only decisions and actions that are absolutely necessary (Ibanga, 2017, p. 1884).

Conclusion

The problems related to IWT are highly ramified and may take many stakeholders to come together to solve the problems of pandemics, deforestation, climate change and population issues. It requires a unified collective force to solve issues and save mass extinction and the health of the planet itself. Prioritising human well being above all may not be the best way to save the earth as humans share the earth with a whole lot of other species to co generate life and all life systems depend on each other for their survival.

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Can't See the Wood for the Trees – Is Smoke from Agricultural Practices Clouding the Issue? A Survey of Public Opinion, Knowledge and Understanding of Air Pollution in Rural Thailand

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Abstract

The causes of outdoor air pollution are multifactorial, with significant human health and environmental impacts. According to WHO guidelines only 8 per cent of people in Asia live with air quality that is good enough to not pose a significant health risk. UNEP recommends 25 achievable solutions, yet public knowledge and understanding of the air pollution are influenced by media headlines. To assess the general public awareness of the main causes, some health and environmental impacts as well as opinions towards initiatives to tackle air pollution a survey was conducted in three locations in rural Thailand. Generally, there are broad similarities in the responses from all the locations in this survey. Firstly, the majority of the rural participants underestimate the severity of the consequences of air pollution, although there was a greater awareness of this in the SISKY sample. Secondly, with the exception of the responses from Mae Hong Song, most respondents apportioned blame for PM_{2.5} primarily on agricultural sources. This could indicate a prejudice or bias influenced by media reports regarding hill tribe agricultural practices. A general lack of knowledge of the effects of ozone on human health and on crops is a concern. It suggests that a vital ingredient in education programmes should be to clarify that not only primary but also secondary sources of air pollution are harmful to health, the economy and the environment. Regarding attitudes towards improving air quality, with the exception of the remote Mae La Noi villages, there was very little support for increased fuel taxes but far greater support for having more indoor houseplants and trees in cities. Collectively the results demonstrate a need for greater education regarding the nature, source, flow and impacts of air pollutants. The impacts on human health include lung cancer, lung disease, strokes and heart disease to name a few. There are economic and environmental effects on crops and ecosystems as a whole. UNEP (2018) recommends 25 clean air measures, yet for successful implementation education is a vital ingredient. The results of the survey show that support for more community education ranked highly compared to other suggested options, indicating that instituting such programmes would have positive benefits.

Key words: air pollution, survey questionnaire, education, ozone, PM_{2.5}, human health

Introduction

The causes of outdoor air pollution are multifactorial, with significant human health and environmental impacts, for a full discussion see Waller (2020). For example, according to WHO guidelines only 8% of people in Asia live with air quality that is good enough to not pose a significant health risk (UNEP, 2018, p.9). UNEP (2017) state that: *"In 2013, the global welfare costs associated with air pollution were estimated at about*

\$5.11 trillion. The welfare costs of mortality related to outdoor air pollution were estimated at about \$3 trillion, and \$2 trillion from indoor air pollution. Mortality costs from outdoor air pollution are projected to rise to about \$25 trillion by 2060 in the absence of more stringent measures."

UNEP (2018) recommends 25 achievable solutions, yet public knowledge and understanding of the air pollution are influenced by media headlines such as *Air Pollution Pandemic Paralysis*, *The Burning Desire for Wealth*, *Toxic Air Fueled By Rice Fields*, which do not lead to systematic analysis or structured education. Similarly, Gao et al (2019) express their concerns that the WHO Director-General, Dr Tedros Adhanom Ghebreyesus, referred to air pollution as the 'new tobacco' as this stimulated misleading media headlines that living in a big city was as bad as smoking. Rather than clearing the issue the analogy could be perceived as a smoke screen, as in reality the 2017 Global Burden of Disease and Injuries Study smoking caused approximately 200% more deaths than outdoor air pollution in the previous decade (Stanaway et al (2018). Furthermore, there are various technological, economic and behavioural approaches that can be taken to tackle air pollution. However, as Notman (2020) points out, some approaches, such as the use of air-filtering buses in Bangkok and other cities and the use of houseplants to filter indoor air, actually have negligible benefits. Therefore, there is a need to assess the extent of public knowledge and opinion regarding air pollution issues, as this is critical to gain support for policies and initiatives to address it.

This paper presents the results and analysis of a short survey conducted in three rural provinces of northern and north eastern Thailand. In Nakhon Ratchasima and Petchabun the predominant crops are sugarcane, maize, cassava and rice, residues from which are sometimes burned, although this practice is now officially banned. In Mae Hong Song there is less sugarcane production yet there is more forest clearance at certain times of year. It is often reported in the national media that there is very poor air quality in cities such as Bangkok and Chiang Mai, and not infrequently farmers are targeted as the main culprits. It provides some insight into knowledge gaps or misconceptions as well as a measure of the general willingness or reluctance to support possible approaches to air pollution.

Aims and research question

The aim of this research was to make a comparative estimate of general knowledge of air pollution as well as attitudes towards potential approaches to reduce air pollution in different rural communities. The results of this estimation should provide support for and aid design of education programmes as advocated by UNEP (2018).

Method

The questionnaire was designed to be brief to avoid respondent fatigue as recommended by Creswell (2009),

Mills and Gay (2016) and Cohen *et al* (2007). There were five questions that required one response from four possible multiple choice options. These first five and the seventh questions related to knowledge of the extent of air pollution, in addition to some causes and effects of PM_{2.5} and ozone pollution. According to UNEP (2018) from epidemiological studies, these are the most damaging forms of air pollution in Asia causing millions of deaths and impacting on ecosystems including agricultural crops. The seventh and final question was more open, asking respondents if they knew of other types of air pollution that were not referred to in the questionnaire. The sixth question was designed to gain an insight into opinion rather than knowledge. It required participants to select three best options from a list of ten possible approaches to combat air pollution. The English version of the questionnaire is included at the end of this paper.

To assess the general public awareness of the main causes, some health and environmental impacts as well as opinions towards initiatives to tackle air pollution a survey was conducted in three locations in rural Thailand. The opportunistic sampling was carried out at villages in the Pak Chong district of the North Eastern province of Nakhon Ratchasima (n=326), in the Wichianburi district of the lower northern province of Petchabun (n=69) and the Mae La Noi district of the northern province of Mae Hong Song (n=179). A further sample of questionnaires was also collected from staff and senior students at St Stephen's International School (n=71) during the same period. These participants were from a more privileged socioeconomic background than the villagers in either of the other samples. The survey was conducted between April and July in 2020. Participants were fully informed that the sole purpose was for academic information gathering and that all responses were anonymous, yet if they required the analysis of results they were given details of how to obtain them. Upon completion of the questionnaire they were offered an information sheet about the myths and realities of air pollution that was based on information from WHO and the reports from Stanaway *et al* (2018), WHO (2018), Lelieveld *et al* (2015) and Lelieveld *et al* (2019). The survey questionnaire and the information sheet were both available in English and Thai. The total number of information sheets that were requested was also recorded as this provided a check on immediate interest in the issues relating to air quality. Questionnaires that were incomplete (apart from question 7) or had multiple responses to questions 1-5 were disregarded and not included in the results or analysis data. The responses to the questions were tallied and percentages from each group were calculated.

Results

The results of the questionnaire from the different locations are presented in Tables 1 - 6. These are expressed as per cent of responses with the total of respondents in each cohort recorded in each table. A total

of 750 questionnaires and information sheets were printed. In total there were 645 completed forms that were analyzed, the remainder either being incomplete or with multiple and therefore conflicting answers. 308 information sheets were requested or accepted when offered after completing the questionnaire, which indicates that 41 per cent of respondents expressed immediate interest in the issue of air pollution.

Table 1: Do you think air pollution is a health problem in the world? (Q1)

% of responses	Not a major health problem	A problem in some cities at times of year	Causes 1000's of deaths annually	Causes millions of deaths annually
Pak Chong (n=326)	8.3	27.6	31.9	32.2
Wichianburi (n=69)	2.9	37.7	30.4	29.0
Mae La Noi (n=179)	4.5	26.3	57.5	11.7
SISKY (n=71)	5.6	28.2	18.3	47.9

Table 2: What causes the most PM_{2.5} air pollution in the world? (Q2)

% of responses	Petrol and gasohol engines	Diesel engines	Agricultural and forest burning	Not sure
Pak Chong (n=326)	8.6	22.7	55.5	13.2
Wichianburi (n=69)	7.2	13.0	72.5	7.2
Mae La Noi (n=179)	2.2	5.0	7.8	84.9
SISKY (n=71)	16.9	21.1	50.7	11.3

There were very few questionnaires that were returned with completed answers to question 7. For that reason, they are not included in this result data. However, this lack of response is a further indication of likely lack of general knowledge or understanding of the sources and forms of air pollution. Collectively, the results show that there are broadly similar responses from Pak Chong and Wichianburi, with some notable differences between the results from the SISKY community. The respondents from Mae La Noi were significantly more likely to respond as unsure or not knowing which option to select. The Mae La Noi community also underestimated the global impact to a greater extent than those from the other cohorts.

Table 3: What organ damaged by air pollution leads to most deaths? (Q3)

% of responses	Brain	Lungs	Heart	Not sure
Pak Chong (n=326)	10.1	72.1	12.9	4.9
Wichianburi (n=69)	0.0	78.3	4.3	17.4
Mae La Noi (n=179)	10.6	53.6	5.6	30.2
SISKY (n=71)	1.4	91.5	2.8	4.2

Table 4: Is ozone safe to breathe? (Q4)

% of responses	Yes	No	Not sure	Don't know
Pak Chong (n=326)	43.6	31.9	18.4	6.1
Wichianburi (n=69)	14.5	58.0	14.5	13.0
Mae La Noi (n=179)	2.8	8.4	74.3	14.5
SISKY (n=71)	35.2	38.0	15.5	11.3

Table 5: Is ozone helpful to crop plants like soy, rice and maize? (Q5)

% of responses	Yes	No	Not sure	Don't know
Pak Chong (n=326)	23.9	31.6	34.7	9.8
Wichianburi (n=69)	4.3	60.9	21.7	13.0
Mae La Noi (n=179)	11.2	11.7	54.7	22.3
SISKY (n=71)	42.3	12.7	25.4	19.7

Analysis

Generally, there are broad similarities in the responses from all the locations in this survey. Firstly, the majority of the rural participants underestimate the severity of the consequences of air pollution, although there was a greater awareness of this in the SISKY sample. Secondly, with the exception of the responses from Mae Hong Song, most respondents apportioned blame for PM_{2.5} primarily on agricultural sources. Is this because the visibility of agricultural burning is so dramatic and abundant at night time in these regions unlike diffuse pollution from transport or is it that there is disproportionate reporting of the sources of pollution in the media? This requires further research. Thirdly, there was general agreement that lung damage in one form or the other made them the organs that would most severely affected by air pollution. The results regarding the effects of ozone on humans and plants indicate a low level of knowledge, with the exception of the respondents from Wichianburi. On further discussion with Phayung Morgan it was discovered that there is a strongly supported community education programme and this could account for some higher degree of knowledge.

Table 6: What do you think would be the best three options to reduce air pollution? (Q6)

	Pak Chong (n=326)	Wichianburi (n=69)	Mae La Noi (n=179)	SISKY (n=71)
Planting more trees in cities	25.3	27.5	11.2	22.1
More community education	18.4	28.0	15.3	19.2
Increase fossil fuel taxes	0.7	1.4	14.5	1.4
Enforce agricultural fire bans	18.1	21.3	25.9	23.9
Social media campaigns	9.7	3.4	15.8	4.7
Having more houseplants	14.4	13.0	5.6	8.5
Total ban on tobacco smoking	4.5	3.4	2.8	0.0
Subsidies for RE technologies	7.0	1.9	3.7	8.0
Using electric vehicles	1.3	0.0	3.0	8.0
Eating less meat and dairy product	0.6	0.0	2.2	4.2

Regarding attitudes towards improving air quality, with the exception of the remote Mae La Noi villages, there was very little support for increased fuel taxes but far greater support for having more indoor houseplants and trees in cities. The preferred approaches were community education and enforcing bans on agricultural fires. Generally, there was little appreciation shown towards the idea of clean renewable energy technology including electric vehicles as being an effective approach and very little awareness of the burden of meat and dairy agriculture and consumption as sources of air pollution. There was a small measure of support for social media campaigns but the great majority did not select this as being in their first three priorities, similarly there was very little emphasis put on an outright ban on tobacco smoking. This suggests another area for further research regarding attitudes towards smoking and indoor cooking which both have significant impacts on indoor air quality.

Discussion

The WHO air quality guidelines for PM_{2.5} is 10 µg/m³ with national standards ranging from as low as 8 µg/m³ in Australia to as high as 40 µg/m³ in India. The fraction of PM_{2.5} mix in different locations varies, with sources from domestic fuel use, transport, industrial process and

agriculture. This means that rural sources can influence urban air quality and vice versa. For example, UNEP (2018) illustrates that although 10 per cent of Dehli's air pollution originates from agricultural burning over 20 per cent is diesel soot, road dust along with brake and tyre wear particles. The generally low estimation of the impact of diesel soot compared to agricultural sources in these communities suggests that there is limited awareness of the far reaching impacts of pollutants, or at least that pollutants from cities can also influence rural air quality rather than solely the other way around. The responses to question 2 from Pak Chong and Wichianburi show that they apportion greater blame on agricultural and forest fires compared to the mountain villages in Mae La Noi. Is it possible that this indicates a prejudice or bias based on media reports that show dramatic images of seasonal burning that they attribute to hill tribe practices?

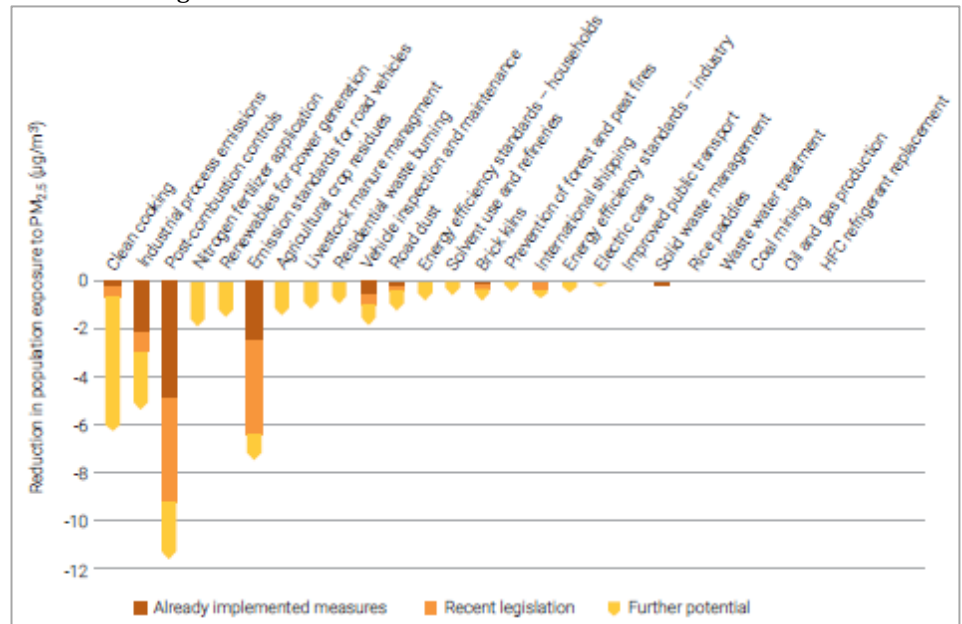
The results regarding the impact of pollutants on human health indicate that there is little awareness of the harm to neurological functioning, strokes and heart disease as discussed in Waller (2020). The responses to this question also suggest that further research should be done regarding knowledge and understanding of the health impacts of different pollutants. This could possibly during feedback through Participatory Action Research education programmes, where participants could be encouraged to monitor or at least record both local air quality through apps such as IQ Air Qual along with health indicators such as peak flow, blood pressure or resting heart rate. These low cost measures would enable participants the opportunity to take protective measures or modify their behavior at times of poor air quality and provide useful data to feedback into the effectiveness of education and other policy initiatives.

UNEP (2018) advocates 25 clean air measures, illustrated in Figure 1. In the top ten ranked measures, UNEP includes nitrogen fertilizer, agricultural crop residue and livestock manure management. This shows as distinct mismatch with the public survey responses that generally ranked eating less meat and dairy products as a low priority, yet there was strong support for enforcing bans on agricultural and forest burning. Indeed, UNEP cites Thailand's open burning controls as an example of the next stage in air quality measures that are not yet major policies in most countries. UNEP claims that:

The adoption of the top 25 clean air measures (Table A) will cut population exposure to PM_{2.5} and ground-level ozone by 60 per cent by 2030 and increasingly more thereafter, at a cost of approximately 5 per cent of the

increase in gross domestic product of US\$ 12 trillion per year that is projected for Asia by 2030. The benefits to human health and well-being of implementing the top 25 clean air measures will be significant. Most importantly, 1 billion people, 22 per cent of the region's population, will enjoy air quality in line with the World Health Organization (WHO) Guideline, compared to just 8 per cent in 2015.

Figure 1: Clean Air Measures ranked by further potential to decrease population exposure (Adapted from UNEP



(2018).

The lack of knowledge of the effects of ozone on human health and on crops is a concern. This data could suggest that there is a general misconception that benefits of stratospheric ozone equate to it being harmless within the troposphere. This is all the more a concern regarding children's health, King (2019). UNEP (2017) claims that ground level ozone pollution is estimated to reduce staple crop yields up to 26 per cent by 2030. Again the results indicate that few of these rural communities were aware of this, or that ozone is a secondary pollutant from several industrial and agricultural practices. This suggests that a vital ingredient in education should be to clarify that not only primary but also secondary sources of air pollution are harmful to health, the economy and the environment.

Finally, it must be borne in mind that this survey was conducted during the SARS COVID 19 pandemic, with media reports of how pollution levels dropped in "lockdown". It was also only a few months prior to this that the world media had reported devastating fires spreading across Australia and local media had reported that schools in Bangkok and some other Thai cities were closed due to low air quality in January and February 2020. All of these reports may well have influenced responses, yet the large degree of inaccurate responses

to questions 1-5 suggest that large knowledge gaps, possible prejudices or misconceptions remain.

Conclusion

Gaps in knowledge illustrated in this survey are sound evidence for the development of greater community education programmes. They also indicate a possible bias towards traditional hill farmers and a denial that urban and industrial regions are major contributors of air pollution. The knowledge gaps include the nature, source, flow and impacts of air pollutants. The impacts on human health include lung cancer, lung disease, strokes and heart disease to name a few. There are economic and environmental effects on crops and ecosystems as a whole. UNEP (2018) recommends 25 clean air measures, yet for successful implementation education is a vital ingredient. The greater knowledge and understanding gained through education would be likely to result in more acceptance of fuel taxation if it were used to fund mass transport of renewable energy initiatives. It would also be likely to result in greater compliance to laws restricting traditional agricultural practices that include burning crop residues. The results of the survey show that support for more community education ranked highly compared to other suggested options, indicating that instituting such programmes would have positive benefits. Furthermore, as people gained deeper insight into the complexities and interrelatedness of air pollution with other sustainability issues they may modify additional behaviours, such as greater use of mass transport systems, consuming less meat and dairy products and embracing cleaner renewable energy technologies.

Questionnaire: Air pollution survey

1. Do you think air pollution is a health problem in the world? Tick **one** answer you most agree with.

- A. Air pollution is not a major health problem.
- B. Air pollution is a problem in some cities at certain times of the year.
- C. It is a serious health issue in some countries causing thousands of deaths each year.
- D. Air pollution is a very serious threat to human health causing millions of deaths.

2. What **causes the most** particulate matter PM_{2.5} pollution in the world? Tick **one** answer.

- A. Petrol and gasohol engines
- B. Diesel engines
- C. Agricultural and forest burning
- D. Not sure

3. Which human organ is **damaged the most** by air pollution, which causes most deaths globally?

- A. Brain
- B. Lungs
- C. Heart
- D. Not sure

4. Is ozone safe to breathe?

Yes No Not sure Don't know (circle one)

5. Is ozone helpful for crop plants like soy, rice and maize?

Yes No Not sure Don't know (circle one)

6. What **three things** do you think would **most help to combat the effects** of air pollution? Tick **three** items

- Planting more trees in cities
- More community education about air pollution
- Increasing taxes on fossil fuels
- Enforcing laws to ban agricultural and forest fires
- Social media campaigns to stop polluting
- Having more plants inside houses

- Completely banning cigarette and tobacco smoking
- Government subsidies on solar, wind and other renewable electricity technologies
- Using electric vehicles
- Eating less meat and dairy products
- 7. Can you name other types of air pollution not mentioned here?

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A Family-Based Approach to Reforestation Program Based on a Forecasted Water Availability for the Present and Future Needs: The Case of the Department of Environment and Natural Resources (DENR) Davao del Sur

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Abstract

The study was conducted to model, simulate and forecast the water availability in Watershed Areas. This effect is interdependent of the increasing demands from both human users and natural ecosystems that will occur at the same time, hence, decision makers must be familiar with the unique characteristics of watershed when developing local adaptations strategies. The water availability in watershed areas is directly proportional to its biological and physical characteristics. The socio-cultural and economic situation affects its biological and physical characteristics; and, it is directly related to water availability. The Brook 90 Hydrological Model was used to simulate the water availability while the GIS Approach through Digital Elevation Model was employed in modeling and simulation to determine its physical characteristics and forecasting the water availability. Findings revealed that the availability of the water in watershed areas is directly proportional to its land cover. When forest cover decreases, the water of a Watershed area also decreases. Hence, a comprehensive reforestation program involving different stakeholders to harmonize plans have been proposed by the researchers. To increase ownership among the stakeholders and the local people in the ground, a family-based approach in the Expanded National Greening Program (ENGP) of the Department of Environment and Natural Resources (DENR) Davao del Sur have been designed. This incentive-based approach is believed to be the appropriate ethical paradigm for reforestation in the different watershed areas of the province.

Keywords: Water Availability. Watershed. Reforestation. Family-Based Approach. Environmental Management.

Introduction

The connections among forest, water, and people are strong; forest cycle water from precipitation through soil and ultimately deliver it as streamflow that is used to supply two-thirds of the globe's clean water (Barten, et al., 2008). Globally, the demand of water is increasing, and forest managers today are asked to provide higher quantities and qualities of water. Meeting these increasing global water supply needs comprehensive perspectives in this dynamic time of climate change, shifts in human population and changes in landuse and ownership. Water may well be the next major of natural resource crisis, patterned by a rising world population, increasing demand for water for agriculture, industry, and energy production; and a growing desire for safer

and more plentiful water supplies that pressuring the existing resources.

The Leadership Group on Water Security in Asia (2009) reported that Asia's water problems are severe and the stress on water resources is accordingly intensifying rapidly due to population growth and urbanization. It was cited that one out of five people (700 million) does not have access to safe drinking water and half of the region's population (1.8 billion people) lacks access to basic sanitation.

The Philippines obtains its water supply from different sources. These include: rainfall, surface water resources, i.e. rivers, lakes, and reservoirs, and groundwater resources. It has 18 major river basins and 421 principal river basins (National Water Regulatory Board, 2007). However, the Philippine Environment Monitor reported in 2003 that the Philippines ranks second from the lowest among Southeast Asian countries in terms of per capita water availability per year with only 1,907 cubic meters.

Generally, sustainable freshwater supply remains an alarming challenge as one of the most basic needs for human consumption. Though it is not yet felt in the Philippines particularly in Davao City, but records show that there is urgency due to human activities.

In Davao City, there is still enough of water when you open the faucets, but with the rapid increase of population, there is a certainty that drinking water or potable water will not be enough for the populace. Davao City is still abundant with fresh drinking water and recognized as among the best waters in the world. (Jeffrey Tupas, Philippine Daily Inquirer, June 9, 2008) Talomo-Lipadas Watershed is the charge area and one of the largest suppliers of water to Davao City. This statement is supported by Ricardo T. Casino of RTC Realty Network, Inc. when he promoted Eden Natural Park in Davao City in particular as the second cleanest water in the World. However, Bedia (2012) presented an alarming report on water situation of Talomo-Lipadas Watershed. "By 2013 there is already a water deficit of 13.80 million per day and -77.37 liters per day for the year 2017. (Environmental Forum, AVR, University of Mindanao, February 15, 2012)

According to Gleik (1993) as cited by Branzuela (2015), the clearest threat posed by landcover is the water availability. This effect is interdependent of the increasing demands from both human users and natural ecosystems that will occur at the same time. The most important effect of landcover changes or water resources will be a great increase in the overall uncertainty associated with water management and supply.

Moreover, successful anticipatory adaptation requires the best available information concerning the effect of land cover changes on water availability; therefore, it is vital that past, present and future scenarios are used more effectively in adapting decision making (Branzuela, 2015). However, decision makers must be familiar with the unique characteristics of the community when developing local adaptations strategies (Picketts, et al. 2012). Thus, downscaling of its scenarios is the core in order to tailor the effect of changing land cover and the geomorphological characteristics at the watershed level, hence, this study.

The main objective of this paper is to come up with a sustainable forest management plan in order to sustain the water availability in Davao region and its citizens. Using the trend variables and hydrologic factors in Talomo-Lipadas Watershed which is the main source of water in Davao City, this study attempted to depict the trend of land cover and the availability of water in the past, present and future scenarios of Talomo Lipadas Watershed.

Methods Used

The study employed quantitative method through Spatial Analysis Method. The trend variables in a watershed area (Talomo-Lipadas Watershed) such as the biophysical characteristics, climatic condition, demographic characteristics and socio-cultural characteristics were quantified and analyzed.

Remote Sensing was used through Land cover and water availability analysis. Land Cover Analysis utilized open-source software for the land cover classification of a watershed (Talomo-Lipadas Watershed). It was done using Semi-automatic Classification Plugin (SCP) in QGIS software. This was used for downloading, preprocessing and post-processing of multi-spectral satellite images to produce land cover data of the target area. There were Four (4) data sets processed for the land cover classification. Each has a 10 year gap from the net data. The data gaps of each data set were chosen to better see the land cover changes of a watershed (Talomo-Lipadas watershed) through the span of not less than 20 years. The land cover classification of the four data sets was used to detect land cover changes in the watershed. The data were selected based on the parameters such as the cloud cover which was less than 10% of the total land area. These data are Landsat 4 for year 1989 (LT41120551989365XXX08) and Landsat 7 for years 2001 (LE71120552001062EDC02), 2013 (LE71120552013079EDC00) and (2016) LC81120552016336LG00.

Each data set was individually processed using SCP plug-in in QGIS. Each has a total of 40 training points and 20 validation points within the Talomo-Lipadas Watershed. Training points were used for the land cover classification, where validation points were used for the accuracy assessment. It was decided that the land cover classification must not have an accuracy of less than 80%.

The Water Availability was determined using the Brook 90 Hydrologic Model software on the hydrologic factors such as rainfall and temperature in the watershed area (Talomo-Lipadas Watershed). This method measured both in calibration period and validation period and was subjected to sensitivity analysis. The model software was executed with the help of Dr. Nympha E. Branzuela through her study on climate change projection Branzuela (2015).

The availability of water in past, present and future scenarios were simulated and analyzed. The past 30 years was determined based on the average temperature and the amount of rainfall. The year was sliced into 1990 (1981-2010) which show an available water of 127.66 MCM. The corresponding map of forest land cover generated an area of 11,263.75 hectares or 28.55 percent

of the total TLW area and 7,908.55 or 20.05 percent of the total TLW area. It was derived and generated using the LandSat data (1989) LT41120551989365XXX08 and (2001) LE7112052001062EDCO, respectively. Based on GIS generated data, the 9,586.15 hectares or 24.30% of the total TLW area indicates 127.66MCM of water.

Using the Global Mapper software, a Mindanao 3-D Map was generated from the Philippines Digital Model. The extent of the Talomo-Lipadas Watershed is clearly shown in Figure 3.

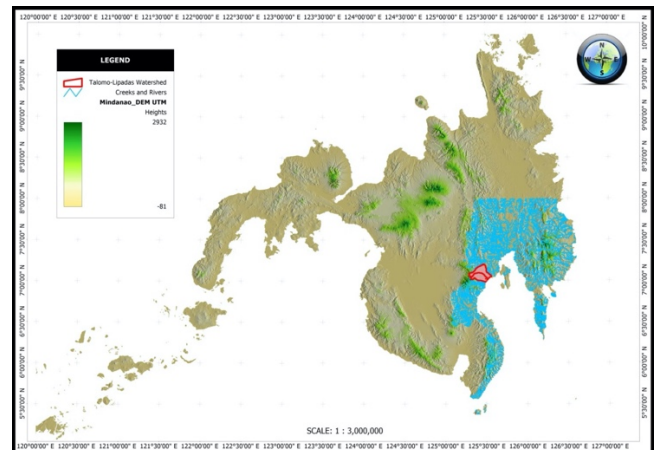


Figure 1. Mindanao, Philippines Digital Elevation Model

Then, the boundaries of Talomo and Lipadas Watersheds were delineated out of Mindanao 3-D Map. This was done using the GIS software.

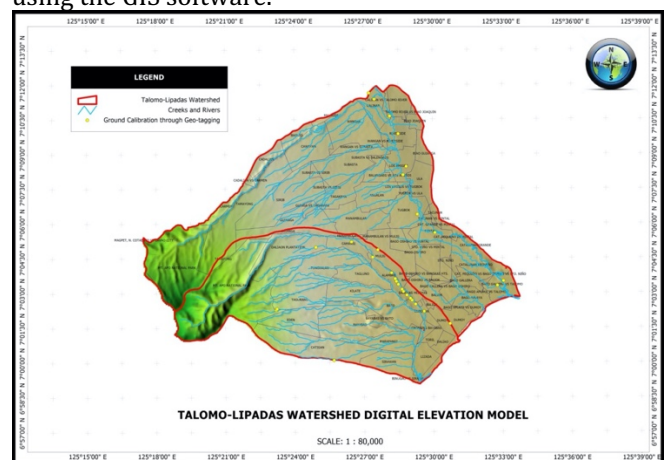


Figure 2. Talomo-Lipadas Watershed Digital Elevation Model

Using the GIS software, a model was generated to combine the TLW area of 39,446.27624 hectares. The Talomo watershed has an area of 22,488.704 hectares or 57.01% while Lipadas watershed has 16,957.7892 hectares or 42.99% of the total TLW area.

Table 1. Talomo-Lipadas Watershed Area

Category	Area (Hectares)	Percent
Talomo Watershed	22,488.48704	57.01
Lipadas Watershed	16,957.7892	42.99
Total	39,446.27624	100.00

To check the exact datum, projection and referencing of Talomo-Lipadas Watershed Digital Elevation Model, the Unmanned Aerial Vehicle (UAV) was used. The UAV produced a clearer picture of the terrain to revalidate the

output of Geotagging. Geometrically-corrected orthophoto images as well as a Digital Surface Model (DSM) of the sampled area were captured.

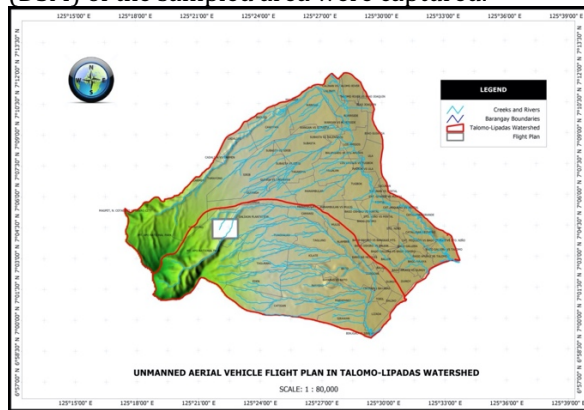


Figure 3. UAV Flight Plan in Talomo-Lipadas Watershed

A multi-rotor DJI Phantom 4 drone was used because of its capability to gather terrain data and high resolution RGB photos. In planning the flight path, the flight areas or Area of Interest (AOI) was selected through visual inspection using the google earth imagery. A polygon was created to delineate the flight area. The flight area covers a total of 240 hectares which was exported as kml files and used as an attribute for the flight plan of Drone Deploy application. The flight parameters were then set in Drone Deploy as shown in Table 2.

Table 2. Flight Parameters used for drone flights in Talomo-Lipadas Watershed.

Flight Parameters	Value
Flight Altitude	300m
Flight Direction	Lengthwise
Flight Area	120 Has.
Flight Pattern	Grid Mission
Image Overlap (Front)	50%
Image Overlap (Back)	70%
Picture Trigger Mode	Fast

We paid a courtesy visit to the Barangay Local Government Unit (BLGU) and discussed the objectives of the study and security of the area. After getting the go signal from the authorities, we then proceeded with the reconnaissance of the subject area.

DJI Phantom 4 was used for the actual UAV field survey in Lipadas watershed. This is to revalidate and recalibrate the data used in the study. The Drone Deploy application was used to fly the drone inside the flight areas. The highest elevation with fewer obstacles inside every flight plan was chosen as take off point as it serves as vantage points to better see the whole area. The flight plan was done in less than 20 minutes' flight time.

After the images were taken by the drone from the planned flight areas, the Images were processed using the AgisoftPhotoscan. This was used to stitch the photos into a photomosaic of the captured images.

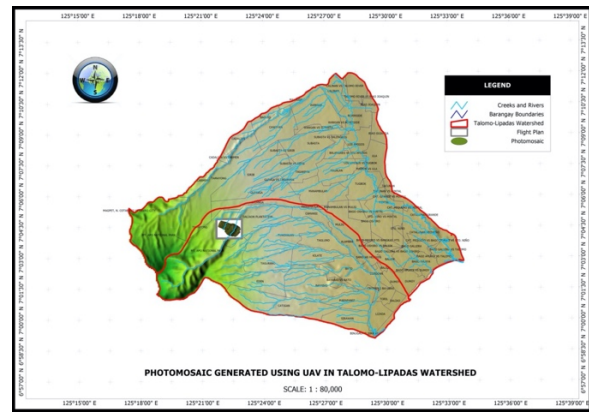


Figure 4. Photomosaic Generated Using UAV in Talomo-Lipadas Watershed

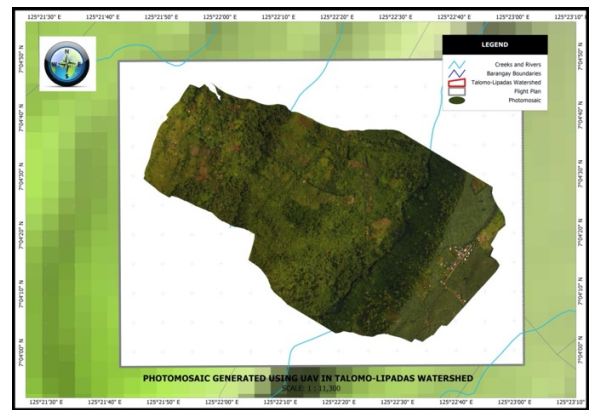


Figure 5. Photomosaic Generated Using UAV in Talomo-Lipadas Watershed

Based on the Photomosaic generated using the UAV, it is assumed that the data such as shapefiles, geo-tagged pictures, TIFF images, DEM as well as the projections and referencing used are reliable. Hence, these are credible and valid to use in the physical characteristics of Talomo-Lipadas Watershed

The land classification algorithm used in this study was maximum-likelihood. This procedure was chosen for the land cover signature classification of the data.

The Accuracy Assessment was done after the land cover classification. Data were exported into shapefile and dissolved for each to get the land area per class.

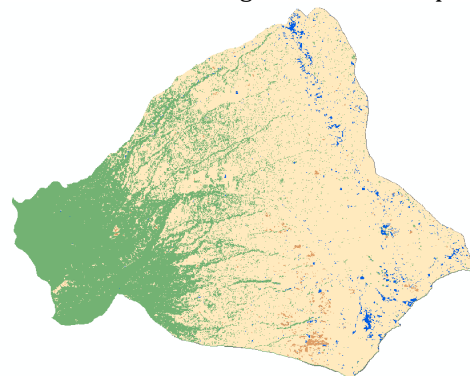


Figure 6. Land Cover Classification of 1989 Landsat Imagery with 84% Overall Accuracy

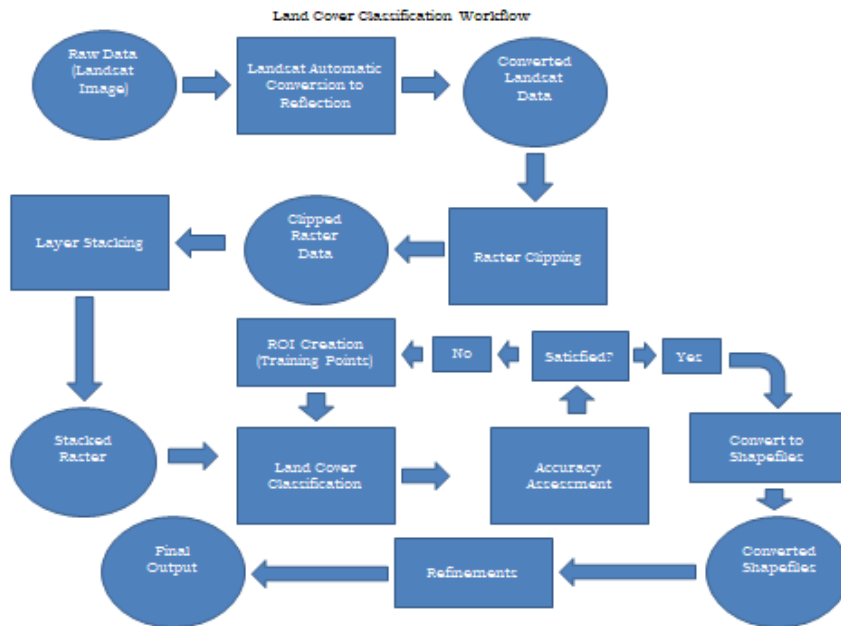


Figure 7. Land Cover Classification Workflow

In determining the water availability of Davao City, we adopted the study of Branzuela (2015) climate change projection using the Brook 90 Hydrologic Model software. This method measured both in calibration period and validation period and was subjected to sensitivity analysis. The model software was executed with the help of Dr. Nympha E. Branzuela.

Sources of Data

The primary data such as geo-tagged pictures including physical and biological data were sourced out during the actual field assessment. An Unmanned Aerial Vehicle was also used to capture clearer pictures of the area.

Secondary data like shape files of maps were obtained from the DENR, Davao City Water District (DCWD) and NAMRIA. It means that this study relied mostly on secondary data. Hence, validation of the same was conducted in the study site.

Climate data were taken from PAG-ASA Agro meteorological station located inside the Philippine Coconut Authority at Bago Oshiro, Tugbok District, Davao City. On the other hand, the hydrologic data mainly the gage height and water discharge were collected at the Office of Materials Quality Control and Hydrology Division, DPWH, Davao City. These were gathered with the help of Dr. Nympha E. Branzuela whose study assessed the impact of climate change in the same watershed area.

Data Analysis

The statistical tools used in the presentation of data of this study are percentages and 3D (three-dimensional) models. In determining the physical characteristics of Talomo-Lipadas Watershed, the percentages and 3D models were used. The data were generated by the GIS to illustrate the extent of elevation, vegetative cover, land classification, land use and soil condition. The data generated were treated using the percentages.

In determining the biological characteristics of Talomo-Lipadas Watershed, both percentages and 3D models were also used. The data were processed into 3D models where the attribute tables were treated with percentages. Moreover, the percentages were used to treat the richness of biodiversity, density and biomass of flora and fauna. These tools were also used in the determination and presentation of demographic characteristics of Talomo-Lipadas Watershed.

In modeling and simulation of water availability, the 3D models of GIS Approach and Remote Sensing Analysis were employed to provide the past, present, and future scenarios of Talomo-Lipadas Watershed.

Results and Discussion

We discussed the past, present and future scenarios of the province based on the forecasted water availability. The past, present and future scenarios are based on the water availability of TLW and mainly processed and analyzed using the Brook 90 Hydrologic model and GIS Approach Analysis. It was assumed that the Recharge or Seepage, water availability of Davao del Sur in general, is directly proportional to the physical characteristics, biological characteristics, and climatic condition of TLW. Paul (2006) as cited by Branzuela (2015) found out that there is notable variation of groundwater recharge on the type of land use. There is a low groundwater recharge in settlement zones due to impervious surface pavements and infrastructure while, forest vegetation, a natural or near-natural landforms receives the highest recharge. Thus, it emphasizes the importance of forest vegetation and impact of anthropogenic activities on areas heavily relied on groundwater ecosystem.

Scenario 1 (Past Scenario)

Using the Brook 90 Hydrologic Model, the water availability in the past 30 years was determined based on the average temperature and the amount of rainfall. The year was sliced into 1990 (1981-2010) to show an available water of 127.66 MCM. It showed corresponding forest land cover of 11,263.75 hectares or 28.55% of the total Talomo-Lipadas Watershed area using the Landsat data (1989) LT41120551989365XXX08 and 7,908.55 hectares or 20.05% of the total Talomo-Lipadas Watershed area using the (2001) LE7112052001062EDC0. The data was generated based on the Remote Sensing and GIS Approach Land Cover Analysis.

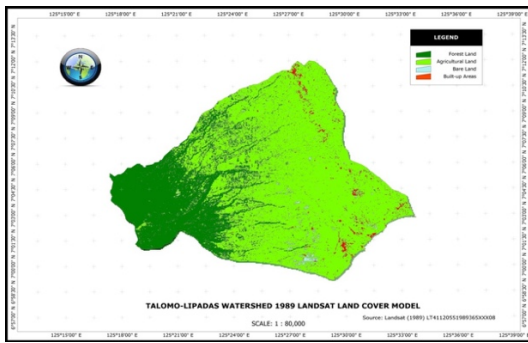


Figure 8. Talomo-Lipadas Watershed 1989 Landsat Land Cover Model

Figure 9. Area of Talomo-Lipadas Watershed Based on 1989 Landsat Land Cover Model

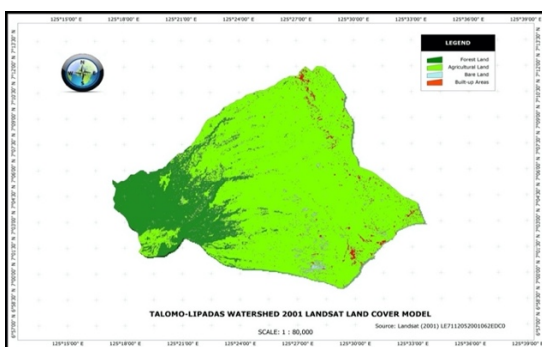
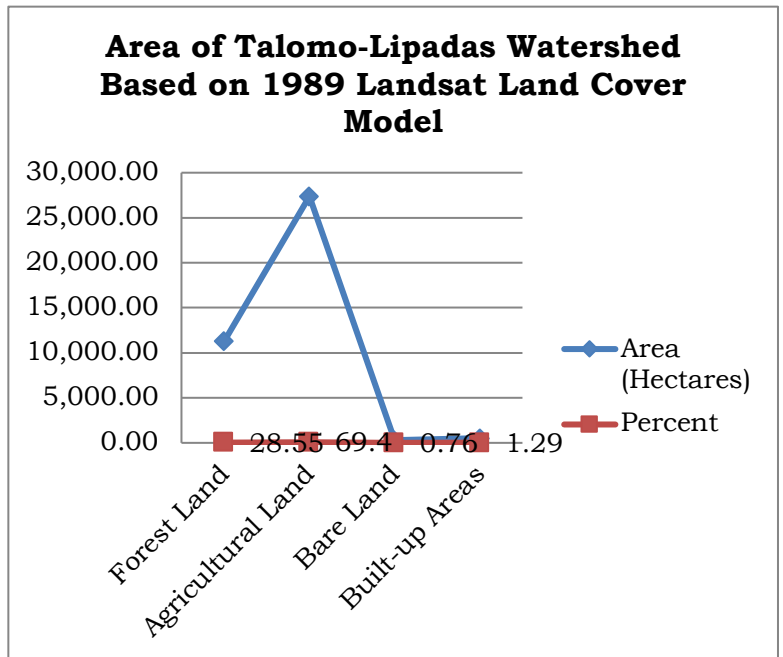
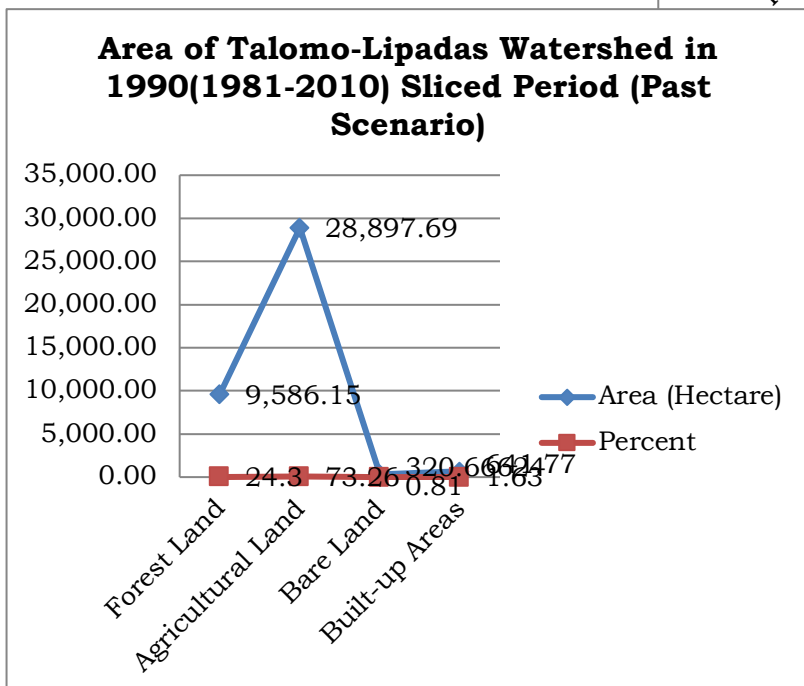
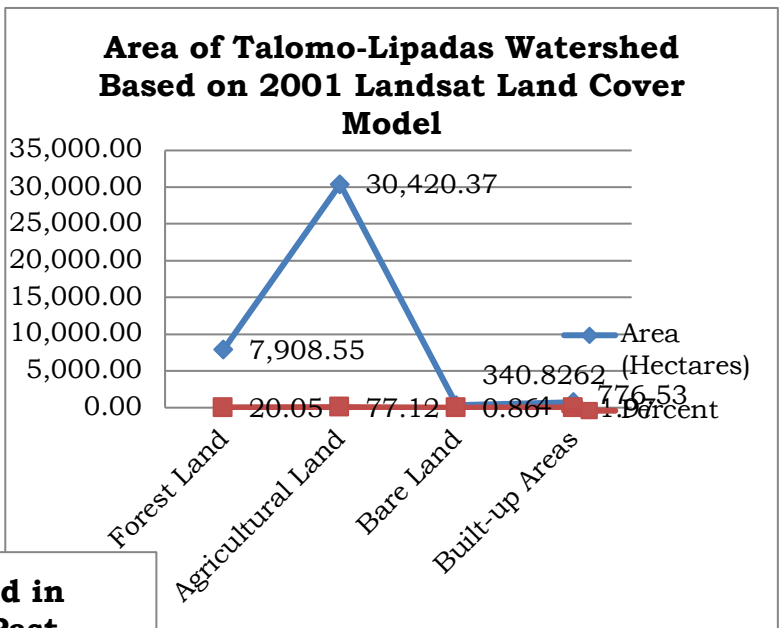


Figure 10. Talomo-Lipadas Watershed 2001 Landsat Land Cover Model

Figure 11. Area of Talomo-Lipadas Watershed Based on 2001 Landsat Land Cover Model



The results show that in 9,586.15 hectares or 24.30% of the total watershed area indicates 127.66MCM of water in 1990 (1981-2010) sliced period as reflected in Table 3 and Figure 11 of the past scenario.

Figure 12. Area of Talomo-Lipadas Watershed in 1990(1981-2010) Sliced Period (Past Scenario)

Table 3. Water Availability of Talomo-Lipadas Watershed in 1990(1981-2010) Sliced Period (Past Scenario)

RECHARGE/SEEPAGE				
Months	1990 (1981-2010)			
	mm	Liters	L*area	MCM
January	43.40	0.04340	16413921	16.41
February	25.34	0.02534	9585609	9.58
March	18.40	0.01840	6960692	6.96
April	10.64	0.01064	6065549	6.06
May	30.39	0.03039	11494409	11.49
June	45.09	0.04509	17053130	17.05
July	38.07	0.03807	14397955	14.39
August	32.86	0.03286	12427377	12.42
September	27.41	0.02741	10366024	10.36
October	19.42	0.01942	7345226	7.34
November	19.28	0.01928	7293535	7.29
December	21.99	0.02199	8316017	8.31
Total				127.66

Scenario 2 (Present Scenario)

On the same process, the water availability in the present 30 years was determined. In 2020 (2011-2040) sliced year, the available water generated is 109.51 MCM. It shows the corresponding forest land cover of 4,553.2967 hectares or 11.54% of the total TLW area using the Landsat data (2013) LE71120552013079EDC00 and 3,714.50 hectares or 09.42 % of the total TLW area using Landsat data (2016) LC81120552016336LG00.

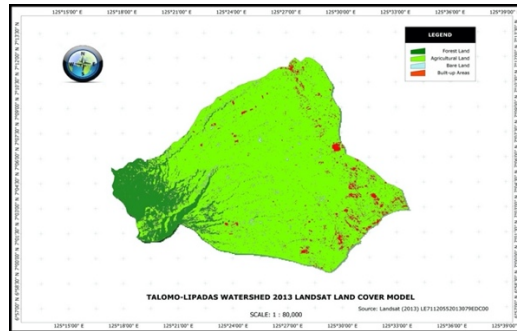


Figure 13. Talomo-Lipadas Watershed on 2013 Landsat Land Cover Model

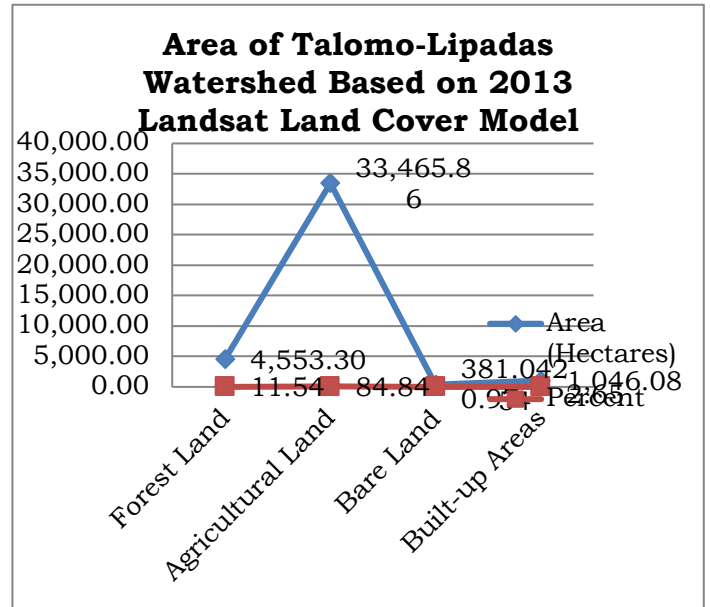


Figure 14. Area of Talomo-Lipadas Watershed Based on 2013 Landsat Land Cover Model

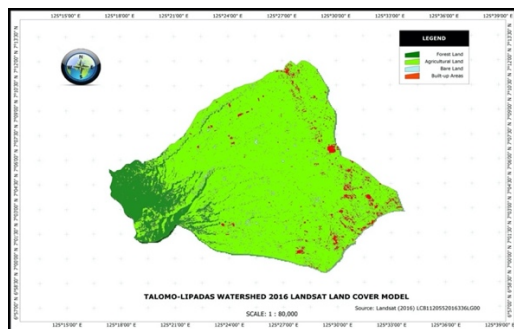


Figure 15. Talomo-Lipadas Watershed 2016 Landsat Land Cover Model

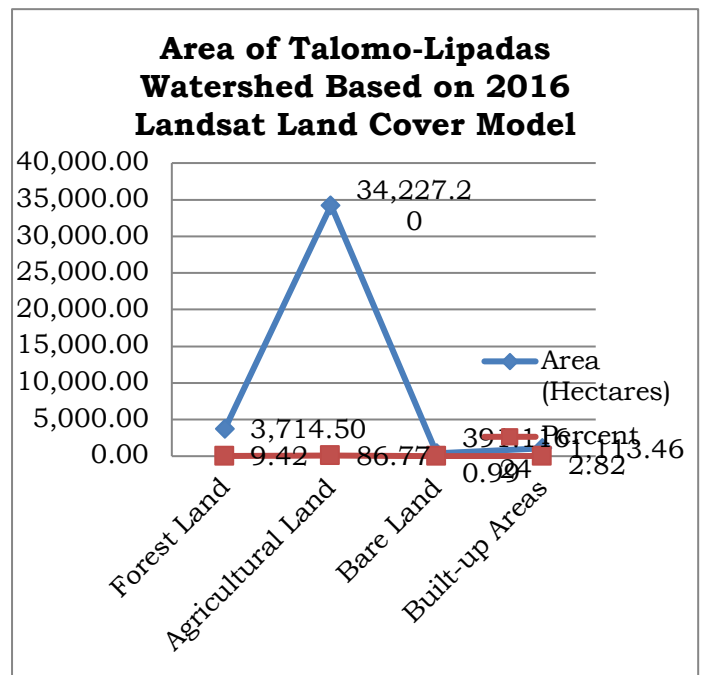


Figure 16. Area of Talomo-Lipadas Watershed Based on 2016 Landsat Land Cover Model

The results show that in 4,133.89835 hectares or 10.48% of the total Talomo-Lipadas Watershed area indicates 109.51 MCM of water in 2020(2011-2040) Slices Period (Present Scenario). This is shown in Table 4 and Figure 45.

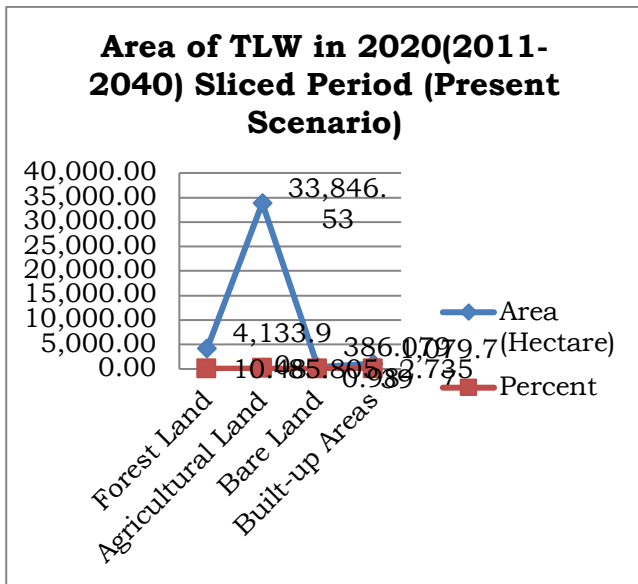


Figure 17. Area of TLW in 2020(2011-2040) Sliced Period (Present Scenario)

Scenario 3 (Future Scenario)

In the future scenario, the water availability in the next 30 years was determined in about 103.53 MCM for 2050(2041-2070) sliced period. Using the GIS Approach Analysis, it is projected that the forest land cover is Zero (0). However, it is indicative in Figure 46 and Figure 47 that agricultural land will increased up to 37,070.9177 hectares or 93.98 % of the total area of the Talomo-Lipadas Watershed area. This is followed by other component such as bare land and built-up areas. In this scenario, the available water of Talomo-Lipadas Watershed is projected to decrease into 103.53 MCM.

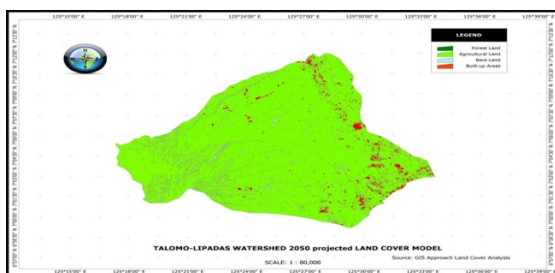


Figure 18. Projected Talomo-Lipadas Watershed 2050(2041-2070) Sliced Period Model Based on GIS Approach Analysis

The next 30 years for 2080 (2071-2100) Sliced Period was also simulated and projected in the future scenario. If the present scenario continues in another 30 years for this sliced period, the projected water availability of Talomo-Lipadas Watershed would continue to decrease into 99.81 MCM with the projected forest land cover of Zero (0) or no forest land cover at all. The agricultural land will also decrease into 36,302.0777 hectares or 92.03% of the total Talomo-Lipadas Watershed area. Built-up areas will increase from 4.76 % in 2050(2041-2070) to 6.47% in 2080(2071-2100) sliced periods.

Table 4. Water Availability of Talomo-Lipadas Watershed in 2020(2011-2040) Sliced Period (Present Scenario)

RECHARGE/SEEPAGE				
Months	2020 (2011-2040)			
	mm	Liters	L*area	MCM
January	37.28	0.0373	14100414	14.1
February	24.28	0.0243	9183424	9.18
March	10.89	0.0109	4118925	4.12
April	8.72	0.0087	3298166	3.3
May	27.18	0.0272	10280291	10.28
June	38.19	0.0382	14444604	14.44
July	34.94	0.0349	13215356	13.22
August	29	0.029	10968670	10.97
September	25.09	0.0251	9489791	9.49
October	17.55	0.0176	6637937	6.64
November	15.96	0.016	6036551	6.04
December	20.45	0.0205	7734804	7.73
Total				109.51

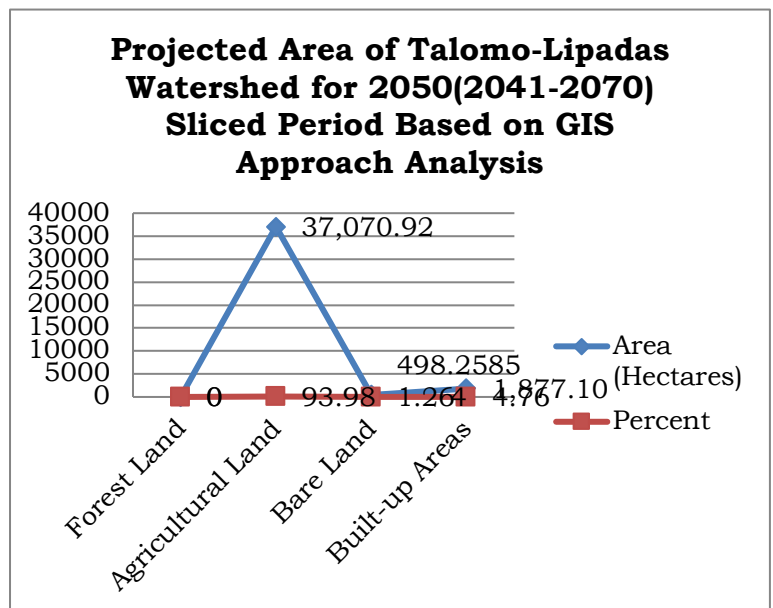


Figure 19. Projected Area of Talomo-Lipadas Watershed for 2050(2041-2070) Sliced Period Based on GIS Approach Analysis

The increase of built-up areas would tell that the population, at the same time, is increasing. This corroborates the definition of Turner et al. (1993) that land cover is the biophysical attributes of the earth's surface and immediate substrate and land use is a description of how people utilize the land and is characterized by management practices (Fisher et al., 2005; IPCC, 2000).

Table 5. Projected Water Availability of Talomo-Lipadas Watershed Talomo-Lipadas Watershed in 2050 (2041-2070) Sliced Period (Future Scenario)

RECHARGE/SEEPAGE				
Months	2050 (2041-2070)			
	mm	Liters	L*area	MCM
January	39.61	0.03961	14981690	14.98
February	24.83	0.02483	9391451	9.39
March	15.07	0.01507	5699926	5.7
April	10.95	0.01095	4141619	4.14
May	18.99	0.01899	7182588	7.18
June	36.34	0.03634	13744878	13.74
July	32.38	0.03238	12247087	12.25
August	25.03	0.02503	9467097	9.47
September	22.42	0.02242	8479917	8.48
October	17.84	0.01784	6747623	6.75
November	11.39	0.01139	4308040	4.31
December	18.86	0.01886	7133418	7.13
Total				103.53

Table 6. Projected Water Availability of TLW in 2080 (2071-2100) Sliced Period (Future Scenario)

RECHARGE/SEEPAGE				
Months	2080 (2071-2100)			
	mm	Liters	L*area	MCM
January	36.26	0.03626	13714620	13.71
February	24.94	0.02494	9433056	9.43
March	15.48	0.01548	5855000	5.86
April	13.65	0.01365	5162840	5.16
May	18.27	0.01827	6910262	6.91
June	26.92	0.02692	10181952	10.18
July	28.97	0.02897	10957323	10.96
August	26.93	0.02693	10185734	10.19
September	23.49	0.02349	8884623	8.88
October	18.88	0.01888	7140982	7.14
November	12.74	0.01274	4818650	4.82
December	17.35	0.01735	6562291	6.56
Total				99.81

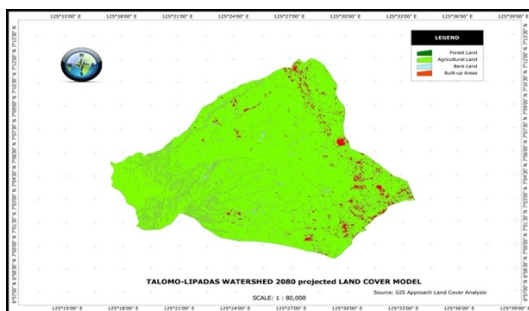


Figure 20. Projected Map of Talomo-Lipadas Watershed for 2080(2071-2100) Sliced Period Based on GIS Approach Analysis

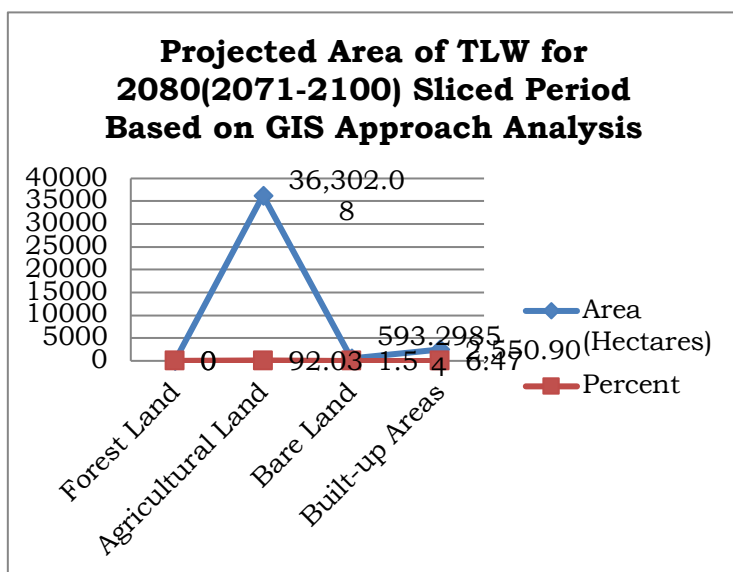


Figure 21. Projected Area of TLW for 2080(2071-2100) Sliced Period Based on GIS Approach Analysis

Future Directions: Towards a Comprehensive Reforestation Program

The Reforestation/Rehabilitation Operation Plan for the Expanded and Enhanced National Greening Program of DENR PENRO Davao del Sur includes the administrative jurisdictions of three DENR field offices namely; DENR CENRO Digos City, DENR CENRO Malalag and DENR CENRO Davao City. It covers a total timberland area of 260,234.77 hectares or 54.42% of the 478,143.56 hectares' total area of the Province of Davao del Sur. The province of Davao del Sur is highly abundant in agricultural productivity and bountiful natural resources that is reliant to its soil condition. In fact, Davao del Sur including its neighboring provinces has identified some of its abundant resources dependent on the classification of soil that suitable to protection and production land use. The complex geography of the province, distinct forestland endowment and different approaches of rehabilitating denuded forest areas lead to the formulation of this plan. This shall incorporate the different reforestation plans of the concerns local government units (Matanao, Magsaysay, Bansalan, Digos, Hagonoy, Kiblawan, Malalag, Padada, Sta. Cruz, Sulop and Davao City) and set forward direction to achieve a balance between the human impacts and protection of the forestland areas of the province.

The Department of Environment and Natural Resources (DENR) has issued new guidelines that may help to expand the participation of the private sectors in the government's Enhanced National Greening Program (ENGP). ENGP is the government's flagship reforestation initiative under Executive Order (EO) 193 issued in 2015 that seeks to cover the remaining 7.1 million hectares of open, degraded and denuded forests in the country from 2016 to 2028. DENR Secretary Roy Cimatu has signed DENR Administrative

Order (DAO) 2019-03 which revises the implementing rules and regulations for EO 193 to encourage more private sector players to participate in the program. The ENGP is the extension of the National Greening Program which was created by virtue of EO 26 and implemented from 2011 to 2016. The program posted an accomplishment of 1.3 billion seedlings planted in 1.7 million hectares and in order to optimize the benefits derived from it, it is recommended to review the existing structure and provide onward directions for the next 5 years.

The DENR PENRO/CENROs are mandated to craft an Operation Plan through Technical Bulletin No. 1-B signed by FMB Director Nonito M. Tamayo, CESO IV, revised guidelines on Surveying, Mapping and Planning Development and other activities for Expanded National Greening Program (eNGP) planting sites. DAO 2019-03 Section 5.3 states the activities to be undertaken in the planning process of land development which requires the submission of a reforestation/rehabilitation/restoration operation plan by forest landscape, critical, community or proclaimed watershed and/or conservation area.

The scheme covered the preparation of the DENR PENRO Davao del Sur reforestation/rehabilitation/restoration operation plan by integrating the plans of the three (3) DENR PENRO Davao del Sur field offices. The plan is to establish management guidelines and recommendations for the Province of Davao del Sur to encourage and guide an integrated approach for better management, use and development of the timberland areas in consultation with the ten (10) local government units, concerned agencies like National Commission for Indigenous Peoples (NCIP), local community and other stakeholders.

Consultation with the wider stakeholders was undertaken during the formulation of the plan specifically the identification of the best use of the timberland of Davao del Sur. The identification of the best use is guided by the criteria namely; 1) Legally permissible, 2) Ecologically viable, 3) Economically feasible 4) Socially acceptable 5) Politically viable, and 6) Compatible with adjacent users.

Mode of Implementation: Family Based Approach

There are 143 critical watershed areas that must be included in the reforestation plan. These areas have been surveyed in order to harmonize the plan of the DENR with the different people and groups of people who are present and have at stake in the areas. After harmonizing the plan, The DENR Davao del Sur will employ a family-based approach for its reforestation program. The previous reforestation program of the department had utilized the support of Peoples' Organizations (POs) for its implementation. While it was still successful considering that the DENR Davao del Sur has received an award as the best branch in terms of the National Greening Program implementation, we found out that there had been challenges and problems as regards to resource allocation and distribution of benefits to the members of the organization. Hence, we have revised the strategy and we will employ a family-based approach for

our reforestation program this time. We will ask the head of the family to apply as the beneficiary of the Expanded National Greening Program of the DENR. After their application, we will orient them about the objectives of the program. The orientation will include significant discussion of environmental ethics to inculcate among the beneficiaries, the need to protect the environment for the present and future generations. After obtaining their commitment through the signing of Memorandum of Agreement (MOA), we will also release their initial budget for the planting of the trees. The remaining budget for the monitoring and other activities will only be released after an assessment through site visitation has been done.

For areas that do not have families as claimants, we will utilize the support of the educational institutions and other Civil Society Organizations (CSOs) to be their planting sites for the tree planting activities of their students and members. We will ask them to adopt the sites as their learning laboratories where their students and their members will learn how to take good care of the Mother Earth using the praxis approach to learning – action-reflection-action.

Conclusion

Taking care of the environment should be the concern of everybody. While there are individuals and groups who have started their love for the environment through reforestation activities, most of their works have not been sustained due to lack of support as well as lack of ethical paradigm that will serve as the glue to bind and sustain their efforts together. This family-based approach to reforestation is an attempt by the researchers who are working in the DENR as well as in the academe to marry the scientific data with the right ethical framework anchored on the values of love and reciprocity to our Mother Earth. The family-based approach is indeed, a right paradigm as it resembles family spirit in taking care of the Mother Earth. We are hoping that through this approach and with the right support from other stakeholders, we can achieve our intended objectives to ensure that there will be potable water for the people in the province of Davao del Sur for the years to come because we have restored the forests especially in the critical watershed areas of the province.

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Global ways in integrating bioethics

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Introduction

Do the people of the world have a common understanding of what is good and right or is our world divided with different values? We can confidently say that none of the cultures in the world will regard murder as good and loving others as evil. In other words, the world may be different in many ways; we, however share some common values. If this is the case, enhancing the common perception of the good and the right among different views by incorporating them into an integrated bioethics should strengthen the impact of bioethics to improve human relations and universal harmony. The attempt to realize this lofty goal must be endeavored through global interaction and interconnection. The process is not to force the different views into one. Bearing in mind that each culture has its own way of expressing what reality is all about should facilitate the process of ascertaining similarity and promoting a better human relationship toward one another. This attempt is to promote a better understanding among different cultures and to build a bridge between today and tomorrow and furthermore, to extend loving concern to all creatures on earth. Van Potter said that traditional bioethics is about interaction between people and people, and integrative bioethics is about interaction between people to create a "world without border." [1]

What is a global way?

We live in a global village. The COVID-19 pandemic proves that the world is without boundary and all human kinds share a common destiny. People are not isolated beings, rather, they are closely related to and mutually affecting one another. Hans M Sass wrote "comparative biology and my own life experience tell me that I and all other bios are not independent from other bios at all" [2]. The whole universe is one and we cannot deny interdependence and mutual inter-effecting among humankind. The bioethics that intends to promote compassion and harmony in human society cannot be a

regional mastery but a global undertaking to aim at implementing the truth, the good, the beautiful and the just on earth. Although we used to think that "East is East and West is West, and never the twain shall meet", this distant world is no longer in existence. What can affect one area of the world will have impact on another. We cannot deny the diversified culture, heritage and styles of living among humankind but these differences can no longer separate people from one another. Besides, bioethics cannot merely be a biomedical science anymore rather it must be extended to all disciplines of studies and all fields of life. The bioethical imperative provoked by Fritz Jahr voiced to extend loving care and concerns to all beings. In order to do that, we must find a global way of doing bioethics.

At one point of history, hostility and mistrust among humankind had been obvious resulting in wars among people and nations fighting against each other. There was no peace on earth. Many however, dreamed of a peaceful co-existence living in harmony without distinction in anyway. Is this dream realizable? Some expected that perhaps through religion that beautiful harmony could be fulfilled. John Oxenham wrote in 1908:

*In Christ there is no east or west,
In him no south or north,
But one great family bound by love
Throughout the whole wide earth.
Join hands, disciples in the faith,
Whate'er your race may be!
Who serve each other in Christ's love
Are surely kin to me.* [3]

Joseph Rudyard Kipling, a Nobel literature laureate wrote in 1907:

*Oh, East is East, and West is West, and never the twain shall meet.
Till Earth and Sky stand presently at God's great Judgment Seat;
But there is neither East nor West, Border, nor Breed, nor Birth,
When two strong men stand face to face, though they come from the ends of the earth!
They have looked each other between the eyes,
and there they found no fault.
They have taken the Oath of Brother-in-Blood on leavened bread and salt.
They have taken the Oath of Brother-in-Blood on fire and freshcut sod on the hilt and the haft of the Khyber knife, and the Wondrous Names of God.* [4]

Kipling's remark of the geographical chasm as described in the first line of this poem has evoked much controversy and debate but at the end of this poem of Ballard of East and West, he described how two men from entirely different religious and cultural backgrounds recognize in each other the universal virtue of courage, and how this mutual acknowledgment of bravery results in the swearing of a solemn oath of brotherhood.

Kipling's poem depicted the spirit of global human brotherhood. Though diversity is a reality, yet the world can be harmonious and fraternally integrated through promoting love and focusing on similarities among

differences. Therefore, the global way is an endeavor of integrating the various views of life, sharing cultural heritages, instilling common morality, promoting understanding and benefiting our living environment through mutual recognition, respect, acceptance and universal harmony. With this integration, we anticipate a bioethics that seeks harmony between man and nature and encompasses a global friendliness among all. [5]

Interconnection and mutual respect as the process of globalization. Sociologists Martin Albrow and Elizabeth King define globalization as "all those processes by which the people of the world are incorporated into a single world society." [6] This is a great anticipation for the world to become one. But we know the world is diversified and can hardly be amalgamated into one due to much differences in tradition, languages, creeds and ethnicity. German bioethicist Hans M. Sass wrote: "interaction and integration, cooperation and competition are as essential for us humans as they are for all forms of bios" [7]. Thus we have to "respect every living being as an end in itself" [8]. From the biblical point of view, all people regardless of color and gender came from the same source and all are beautiful and good (Genesis 1). Thousands of years have passed in human history and generations rose and passed away yet the antagonism among people and nations still remain. To incorporate the world into one may only be an impossible dream but in the wake of modernization and rapid development of technology the intensification of worldwide interaction and social relations have linked the distant territories to mutually affect each other; what happens to one area even in faraway land can impact on another. [9] In 1992, Roland Robertson, professor of sociology at the University of Aberdeen and an early scholar in the study of rapid interdependence and interaction among people and continents depicted globalization as "the compression of the world and the intensification of the consciousness of the world as a whole." [10] What he illustrated is that the world has been quietly progressing to integration. Thus globalization is the activity of the widening, deepening and speeding up of global interconnection,... and processes of change which underpin a transformation in the organization of human affairs by linking together and expanding human activity across regions and continents. [11]

The phenomenon of increasing interaction among people and nations has transformed the world. When a deadly virus epidemic occurred in one part of the world, the rest can be infected in a very short span of time if not well self-sustained and protected. How should we resolve the tension between individual liberty and the risk of community-acquired infection? Who should get treatment when there is not enough resource for everyone? [12][13]. Lisa M. Lee, Executive Director of the U.S. Presidential Commission for the Study of Bioethical Issues, suggested that finding measures to tackle the new problems confronting human society for the survival of species need collaboration among nations with expertise in science, public health, and ethics to work together to develop ways of solutions by challenging the ethical terrain of both public health emergencies and everyday

practice. [12] To be more scrupulous, global integrated bioethics should be attempted.

The attempt to integrate bioethics. Bioethics, traditionally speaking is about interaction between people. Bioethics in recent decades however has moved a step forward to cover the interactions between people, and people with their living environment including relationship to animals, land, biological systems and social activities such as political and business dealing, etc. Through more advanced and faster transport facilities and frequent business transaction and human social activities, the world geographical distance has shrunk. The west and the east are no longer strange to each other but mutually enriching and influencing. As a result, a new world bioethics has gradually been in the making. In a book, *World Without Border* [14], Lester R Brown, founder of the Worldwatch Institute and founder and president of the Earth Policy Institute, voiced that "we must begin with the formulation of a new ethics to seek harmony between man and nature and encompass an ideology of global unification... must adopt and propagate this new ethics translating it into political action. Our future well-being depends on how quickly the new ethics now emerging can be translated into a new more humane set of global priorities, new global institution and new level of global cooperation." [15]

As an Asian working to promote the universal harmony based on the teaching of Lao-Tzu's Taoism, I call for integrating all bioethics, either it be European, North American, Asian or African having their unique perspectives of life; they could be converged, not hybridized but through dialogue to create a new bioethical mindset. In other words, integrating bioethics is not to force a fusion but finding the common ground of morality to come up with the appropriate and most suitable answer to bioethical puzzles confronting humankind. Differences among various bioethics will exist but we can distil and strengthen similar values that all agree upon and use that as the basis of integration. Finding similarity in diversity can enable us to find a common ground. We are not promoting a single bioethics, rather, concentrating on common morality as a new approach. No culture will oppose love as a common value of humankind. Building upon this ground, we can promote global bioethics to further benefit the world. Darryl Macer defines bioethics as Love of Life: "love of life is the simplest and most all encompassing definition of bioethics and it is universal among all people of the world" [16] and Fritz Jahr pointed out "compassion is an empirical established phenomenon of the human soul". Global bioethics is not inflexible nor ceremonial but corresponding various moral principles to suit the situation and the parties involved. It is a task that cannot be achieved by one generation. We can say global bioethics is "the attempt to agree on fundamental conditions for human flourishing and to secure them for all." [17] In other words, integrating bioethics is to build a bridge so that we can find similarity in diversity and suggest a possible guide to foster universal values. Based on this foundation other articulation can also be applied as a vehicle to promote integrated bioethics. For instance, Lisa Lee in her article "Integrating Ethics for

the Nation's Health" advocates that public health ethics can be a bridge to unite the field of biomedical and environmental ethics by arguing that human health is connected to that of animal and environment.[12] For the sake of benefiting all, we can utilize other findings to solve the problems we face.

This attempted bridge to connect the various advocacies is not a strange thinking as R Van Potter has voiced in his prophetic book maintaining that bioethics is the Bridge to the Future. He said: "We must develop the science of survival and it must start with a new kind of ethics—bioethics, defining interdisciplinary in a special way to include both the sciences and the humanities." [18]

Four approaches are suggested here for promoting integrated bioethics. Firstly, to find common morality of the world as the foundation and guide for collaboration; secondly, to seek a translational bioethics that facilitates the practical needs of human society and environments, thirdly, to develop consultation skills and provide consulting service to contemporary need and fourth, to discuss further the meaning and scope of integrated bioethics and to deepen the dialogue among different views of bioethics.

Robert M. Veatch, a renowned professor of ethics at Georgetown university wrote in his article—*Is there a common morality*: "One of the most exciting and important developments in recent ethical theory—especially bioethical theory—is the emergence of the concept of common morality." [19] He argued: "the core idea of a common morality is that all humans—at least all morally serious humans—have a pre-theoretical awareness of certain moral norms. The claim is that normal humans intuit or in some other way know that there is something wrong with things like lying or breaking promises or killing people. These purportedly universally shared insights can provide the raw data from which ethical theories are constructed." [19]

Veatch has laid a very important foundation that global bioethics is feasible because all humans have a naturally inborn awareness of right and wrong, good and evil. Though people in different cultures are different in constructing distinctive theories to account for their experience, the primitive idea that to kill indiscriminately is wrong has been universal. The term "sacredness of life" may not be a common expression but every culture has its own way of illustration; for instance, the Chinese bioethics forerunner, Sun Shi-miao described the sacredness of life as: "life is heavier than thousand pounds of gold" [20] to insinuate its precious value. In Hindu tradition the term Ahimsa is used to denote that one should not hurt others. Though In Bhagavad Gita has depicted killing as a duty when a soldier is defending his country to protect his countrymen by inflicting pain on the invaders but it is not a license for killing rather a duty to protect his fellowmen.[21] Krishna reminds Arjuna to fight in order to bring good out of a bad situation. The common morality is still valid that "thou shalt not kill", an insight shared by all normal people.

As we examine all the cultural differences of the world, we find that there is indeed common morality. Another example is Confucius: "Don't treat others the

way you do not like to be treated" and Jesus: "love thy neighbor as thyself". One narrates in negative way while the other in a positive emphasis. These similar essential teachings can become the basic denomination to find common ground in diversified cultures to strike for global integrated bioethics. The first step is to check all different ethical teachings to discover their commonality so as to integrate them. This endeavor is not limited to only a certain geographical or cultural area, but inclusive of all to set the tone for a global way in bringing all together. The process is not to eliminate any cultural tradition or extract any value but to fortify the common morality as the basis of a global integrated bioethics. This methodology will include comparative study as well as contextualization to substantiate the core of all as global bioethics.

From theory to praxis; integrated bioethics is translational. Integrated bioethics must be feasible and practical in realistic settings of life. Applying the theory of bioethics to improve patient-physician relationship and to enhance human health and ecological well-being has to be the focus of translational bioethics. The main concern of traditional ancient medical ethics was on the patient-physician relationship. Later as the biomedical technology rapidly developed, a new concern arose to address issues such as autonomy and justice. Today as we face the challenge of rapid progress of biomedical technology including digital development, we must consider whether or not scientific breakthrough is unlimited. Should we limit certain areas of scientific inquiry as the technology already has the capacity to penetrate into the mystery of life and even genetically altering life to create a super human or a brand new being unknown of in history. Subsequently, bioethics input is important to assure not only that human subject trials are conducted and reported responsibly, but also that results are incorporated into clinical and community practices in a way that promotes and protects bioethical principles [22].

Translational research needs to move scientific breakthroughs from the bench to the bedside and discover ways to channel the biomedical advances to improve healthcare and individuals' lives. Translational research may utilize non-medical tasks such as informed consent, risk-benefit assessments, patient engagement, biochemistry, animal research, information technology, engineering, nanotechnology, economy, sociology, psychology, politics, and humanities. Certain bioethics principles may have hard time connecting to practical application so translational bioethics urges researchers to make sure that bioethics and clinical medicine are closely related so as to implement the fulfillment of promoting human health and covering wellbeing for all. [22]

Dr. Hans Martin Sass said: "...Highly specialized results of research have to be translated into other fields of biomedical sciences, clinical medicine, diagnosis, therapy, development and administration of drugs, public health issues, lifestyle modification, health education and health care insurance and payment scheme" [23]. This is exactly what global bioethics

targets, namely, to translate the theory to practice and useful implementation in actual world.

There are two general directions in which to try and bridge the philosophical reflection-practice gap: from philosophical reflection to practice, or from practice to philosophical reflection. In the former, the object for translation is bioethical research carried out in academic institutions as theoretically justified reasoning and conclusions. In the latter, the object for translation is bioethics as carried out with practical reasoning and conclusions about what to do within the field of medicine or other bio-related activities (e.g. environmental interventions). Translation thus involves the transference of elements of knowledge production from one area to the other.[24]

Bioethics consultation. With the rapid development of medical technology, clinical decision-making is not as straight forward as it used to be. The complexity of clinical decision-making has prompted the rise of ethical consultation to provide assistance to patients and health professionals to see the dilemma they face from objective perspectives. With new medical devices, life can go on through connecting to a life-supporting machine such as ECMO or respirator. When medical treatment becomes futile, should we withdraw the respirator? If some family members insist to continue giving the treatment against medical prognosis, should the patient's life be kept going? When there is a dispute in the course of treatment among family members and health professionals, ethics consultation becomes an important channel to provide assistance. The complexity of the modern world with influx of migration of people has moved this consultation to a new height of importance and need.

The ancient world where people lived together based on race, language, culture or religion no longer exists. The economic development has facilitated the migration of people, not only from one area of the land to the other but also migrating to countries totally strange to them where different languages are spoken, distinct religion is practiced, even people's physical structure differing such as color. United States is a typical example of this migration where although white people and Christians remain a majority, many foreigners have moved in to make it a real melting pot of the world. Europe and some countries in southern hemisphere also experience similar migration. Multicultural urban centers have been developed in most of the well-to-do countries. Along with this migration and mixing of people, bioethical consultation to provide help becomes crucial. The global integrated bioethics must take note of this trend as a concern and focus of attention.

Bioethics consultation is a practical discipline to turn theoretical discussion into practical use. We can say it is a translation of classroom deliberation into clinical application. If a science cannot improve human living and enhance human wellbeing and understanding, that science becomes an abstract enterprise only good to stay in an ivory tower. Ethics is a practical philosophy and bioethicist should find way to serve social needs by implementing bioethical principles to the actual settings of life.

The new world reality has extended the nature of bioethical concern from the medical to theological, philosophical, sociological and ecological deliberations. Facing ever-increasing problems arising from the development of medical technology, bioethics consultation becomes even more important. When a dilemma arises, consultation is a way to render assistance to health professionals, patients and their families for them to see the hardship from more objective and wider spectrum so as to find a better solution to suit their need. The need of ethics consultation reflects increasing complexity of modern medicine's ethical questions.

Bioethics consultants will provide guidance to patients, their families, and professional staff on ethical, legal and policy issues and also concerns arising from clinical interactions between healthcare professionals and patients. This role will also provide education about ethical issues to medical staff members, medical residents and students, nurses, social workers, chaplains and other allied health professionals.

Further discussion of the meaning and scope of integrated bioethics and the dialogue among different views of bioethics: The question of global bioethics has been debated by bioethics scholars. Regardless of cultural differences within the world, we can confidently say compassion or love has been the common human nature that every culture espouses; therefore, global bioethics cannot be conveniently rejected. The debate and discussion of a global integrated bioethics, however must be encouraged in order to excel and deepen the understanding of globally integrated bioethics and also to promote cultural dialogue.

Søren Holm and Bryn Williams-Jones asserted global integrated bioethics is a myth rather than reality. They argued if bioethics is a unified global field, or at the very least a closely shared way of thinking, then we should expect bioethicists to behave the same way in their academic activities anywhere in the world. In their study, they concluded: "there is in fact no unified global field of bioethics. It seems that, even in English-speaking countries, bioethicists do not link to each other's websites as much as would be expected, do not cite each other as much as would be expected, and do not converge on the same books as much as would be expected if bioethics were truly a 'global' field"[25]. Søren assumed a global bioethics should have a unified principle but to them there is not.

Undeniably, our world is not one but many therefore expecting unified bioethics is unrealistic. Global integrated bioethics, however is not going to be a single universal bioethic but to emphasize the existing common morality as a base for dialogue and deliberation to find solutions that speak to the need of situation. All cultures have different ways of expressing love and goodwill such as westerners hug as a way of greetings, some even kiss yet oriental people will bow head instead. All these gestures though varied in styles are symbol of friendliness and mutual respect. They express greeting in different ways with a similar goodwill. What matters is not the external manner but the internal quintessence.

Since there is similar virtue among different people, global bioethics is not impossible.

Another scholar, Maria Sinaci examines the possibility of the existence of global bioethics from the perspective of the world globalizing process as the whole world has become so interrelated that none can afford to be isolated. She argued that “global bioethical construction can generate closeness in the approaches related to bioethics, ... a global bioethical frame implies collaboration between specialists in different fields (philosophy, sociology, medicine, theology, psychology, etc.) who are interested in the same subjects and work with similar information sources. ... global bioethics should not be confused with an attempt to an approach to a unitary religion.” [26]

Van R. Potter appealed to a new science of bioethics through combining biological knowledge with human values to create a bridge between the technical and the human-social sciences, thus giving bioethics larger extent which will lead to global bioethics [27].

In deepening the understanding of global integrative bioethics, we can approach it from different angles; firstly, to a call for globalizing the study of bioethics from a holistic perspective through engaging in a dialogue between different cultures, sciences and activities in tackling bioethical questions related to life. Secondly, it can be an endeavor to explore the global integrative principles. The so-called Georgetown mantra has come up with four principles of non-beneficence, beneficence, autonomy and justice that the whole world takes as bioethical Bible. European bioethicists led by Frances Abel, Jacob D Rendtorff and Peter Kemp suggested autonomy, dignity, integrity and vulnerability as the set of European principles of bioethics.[28] Michael Tai of Taiwan based on Asian ethos recommends Ahimsa (do no harm), Compassion, Propriety (respect) and Dharma (responsibility) as set of Asian principles[29]. The World Medical Association has listed compassion, competence and autonomy as the ethical values of physicians.[30] All these are good and important and the global integrated bioethics can further deliberate on them and perhaps come up, if feasible, with a new holistic set of principles from biomedical, environmental, social and even spiritual perspectives for consideration. Thirdly, it should be a study of application of bioethics in response to the rapidly developing biomedical technology as a science working on concrete problems trying to determine directions of action in order to diminish conflicts within the society.

Conclusion

Global bioethics would be neither international bioethics, nor a universal religion or an evaluation frame based on a set of norms applicable anywhere, to anyone, and anytime. Integrated bioethics assumes a wider spectrum of bioethics covering all ethical questions relating to the phenomenon of life.

Hans Jonas wrote: “the phenomenon of life itself negates the boundaries that customarily divide our disciplines and field [31]. Covic Ante suggested the concept of pluri-perspectivism [32] and H. Juric’s concluded in his article on “Hans Jonas’ Integrative Philosophy of life as a foothold for integrative bioethics

that “we should keep in mind that mono-perspectivism makes us shorted-sighted or even blind. While pluri-perspectivism enables us to look at the phenomenon of life both with microscope and telescope, as well as with our inner theoretical eye, in order to approach an integrative understanding and knowledge on life, as well as an integrative ethics of life.”[33] A global way in integrating bioethics will direct the world in future collaboration as a bridge to advance to a new age for all.

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New Normal or Post-Normal? Philosophical Implications of the Covid-19 Pandemic

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Abstract

The 'new normal' refers to an awareness of the calculated risks and dangers on getting infected, although standards and protocols are to be observed with public health and personal safety in mind. In contrast, the 'post normal' is a paradigm shift that dismisses any claim of a return to the ways of old or the previous state of affairs that people have enjoyed prior to the coronavirus pandemic. Applying the post-modern techniques of Umberto Eco, this paper explores the meanings of both concepts and their implications to everyday life.

Introduction

In 1327 a young Benedictine novice, Adso of Melk, and a learned Franciscan, William of Baskerville, visit a Benedictine monastery in northern Italy for a theological debate. The abbot, Abo of Fossanova, asks William to look into the recent death of the illuminator Adelmo of Otranto, who fell from the octagonal Aedificium, which houses the abbey's labyrinthine library; William is barred from entering the library itself, however. That evening William debates with the monks about the theological uses of laughter; an elderly blind monk, Jorge of Burgos, condemns laughter as disruptive. (McManus 2019)

Reading Umberto Eco's first novel, *The Name of the Rose*, is like being in a labyrinth of signs and symbols to look for clues as one tries to answer a mystery. But instead of getting an answer, Eco (1980) forces the reader to postpone his judgment. In this post-modern tale, the Italian novelist attempts to cast doubt on our understanding of the truth so that the pursuit of any meaning in the story appears to be an endless journey of plot twists. The protagonists in Eco's mystic tale are tasked to solve a murder case. But in the course of their stay at the Abbey, they stumble upon other deeply disturbing questions.

In the story, William of Baskerville represents Emperor Louis IV, who was in a passionate quarrel with the Pope. The monks in the Abbey are the emissaries of the papacy. This conflict adds to the dilemma in the conflict between truth and power. The Franciscan Order at that time was also in the middle of a controversy that was brought about by the clash between secular and ecclesiastical values. The narrative brings the reader to the difficult questions involving the Church and its various acts, including the Inquisition. Patricia McManus (2019) writes:

"William and Adso return to the library and at last discover a way into the forbidden room called finis Africae, where they find Jorge of Burgos. It is revealed that he had poisoned the pages of the missing manuscript, and

Venantius, Berengar, and Malachi died after touching the pages. Jorge had also manipulated Malachi into murdering Severinus. In addition, he has trapped Abo in a secret stairway, where he suffocates. The book that Jorge is protecting is a volume of Aristotle's Poetics on comedy and laughter. The blind monk then eats pages of the book and knocks over Adso's lantern, setting a fire that consumes the abbey. William and Adso escape and return home."

The "New Normal" as a Linguistic Tool

The language of the "new normal" refers to the attempt of governments, policymakers, and international organizations to usher a way of understanding human life during and possibly, after the coronavirus pandemic. The Spanish Flu of 1919 that occurred 100 years ago did not have the same restrictions that people experience today. But as societies have become more complex, the language of the new normal is used by the authorities to enforce a type of "standard" that people ought to follow. The Covid-19 pandemic is a way of questioning the affairs of civilized man and of modern society as well. Accordingly,

This framing is inviting: it contends that things will never be the same as they were before — so welcome to a new world order. By using this language, we reimagine where we were previously relative to where we are now, appropriating our present as the standard. (Asonye 2020)

The concept of the "new normal" is a matter of approach. It is a type of language that puts things into their perspective. It attempts to reveal answers to questions related to life as states find ways to deal with the problem. The idea of the new normal forces us to re-examine ourselves and re-interpret the ways we do things. Precisely, many things might no longer work after Covid-19. With tough restrictions to travels and disruptions to the economies of many nations, the things around us that defined the way we live may no longer be the same.

The new normal will require people to let go of certain comforts, to make adjustments, and adapt to a new way of life. This means doing away with mass gatherings that can bring great risks to the population, conducting online meetings instead of in-person dialogues, the imposition of health protocols and measures in sporting events that, while notoriously inconvenient, will be necessary to avoid spiraling cases of new infections. As a matter of fact, new business models will emerge. However, when it comes to the education of our children, the concept of critical pedagogy may still be pursued. (See Maboloc 2020)

In the language of the new normal, a post-pandemic world means the stricter enforcement of rules and regulations. This means people being supervised in their everyday life and some of their basic freedoms curtailed for the sake of public health. New forms of control, instead of good governance, will be employed by strong leaders to maintain their place in the body politic. Without strict measures, the new normal will not work in a society where discipline may be wanting and the rule of law is weak. Expectedly, cause-oriented groups and civil society will react and protest against curfews and every other impediment to the freedom of citizens.

However, the new normal does not reflect the presence of systemic injustices in society. When William of Baskerville investigated the murders, he was cut off by the people who wanted to hide the truth from him. Similarly, the answers to our questions cannot come from the old ways of doing things. The idea of normalcy is not actually working for millions of people who still have no access to a decent life. The reason for this is that while Covid-19 has disrupted the everyday lives of people, the new normal that it calls for will not in any way dismantle global hegemony and cultural imperialism.

Covid-19 and Post-Normal Science

The novel approach of William of Baskerville was crucial in solving the puzzle about the murders. In the real world, inductive logic still works. We need a lot of observation and precise predictions to make science effective. But a paradigm shift in the science used in this pandemic is needed. Jerome Ravetz (2020) explains that “normal science is totally inadequate to cope with this complexity, and needs to be supplemented with a broadened awareness of solutions and problems alike.” To manage a post-pandemic world, inclusivity rather than force is necessary. Direct participation rather than strict enforcement will make things bearable for the population.

Undoubtedly, experts are needed to address the lingering questions. The coronavirus will not evaporate out of thin air. Daniel Mishori (2020, 232) believes that “epidemiological theories and models proved fallible and erroneous.” In this sense, the science of pandemics would require revolutionary efforts. If any government limits its scope of understanding the problem to a select group of technocrats, then the authorities might not succeed in solving difficult problems on the ground. Beyond institutional actions, there is a need to empower people to diffuse power into the peripheries.

Ravetz (2020) thinks that “with the post-normal science approach, we can find it natural to accept that the social and political aspects of the pandemic are as important as the biological. That is: the great variety of societal responses to this virus that we have seen are not secondary phenomena to its molecular structure.” Revolutionary science calls for a novel approach to a problem. A crisis requires radical decision making. This happens when textbook solutions to the problem are no longer be applicable. When a theory no longer works, the demand for better solutions emerges. (See Kuhn 1962)

For instance, the model of welfarism is a deficient approach in a globalized environment. Big corporations today dictate state policy and the political agenda of G-7 States. It is important to look for new paradigms in terms of development. (See Maboloc 2018) The old systems may no longer be useful if governments want permanent changes. It is a question of power and how the same is able to transform things. To initiate a new world order, societies must abandon those strategies that simply perpetuated the influence of oligarchs (in Third World societies) and of corporate moguls (in affluent states) at the expense of the people. Ravetz (2020) says:

For a proper recovery we will need a post-normal science understanding of the pandemic as essentially a complex entity where the social, ethical, and ideological

dimensions interact strongly, sometimes decisively, with the biological. Recovery must be done piecemeal, and then policy makers will continuously confront contingency, complexity, error, and uncertainty in their situations. The affected public must be integrated into the recovery effort as an extended peer community; otherwise the inevitable variations and exceptions become the occasion for resentment, evasion, and failure.

The state-centric approach to the Covid-19 crisis depends on the power of the government to control, manage, and enforce. This is democratically unhealthy. Ravetz (2020) observes that “the lack of capacity alone had the potential to cause society-wide chaos in the absence of draconian social and economic interventions.” This has become apparent in several states where the healthcare system is being punished by rising infections. In his powerful paper on bio-politics, Mishori (2020, 230) gives a stern warning about the excesses committed by governments:

Public health Corona considerations warrant frightening paternalism, promoting dystopian states based on unrestricted “extreme bio-power” policies which govern human bodies, including enforced mass “treatments” (lockdown) with unprecedented authoritarian control.

A Post-Pandemic Paradigm Shift

A paradigm shift must be on the horizon. Governments now think that old strategies will result to more disruptions in the everyday life of the people. The solution to a crisis cannot be that top-to-bottom approach. Inclusivity is important. In the past, people would think of charismatic leaders as silver bullets. However, no society changes because of the power of one man. Lasting change is rooted in every little effort done by common people and small communities to confront a lingering social pathology.

The Covid-19 Pandemic has demolished the dominance of a neo-liberal system. Financial markets are down and globalization has come to a halt. Juichiro Tanabe (2020, 74) notes that “the pandemic has not only taken many lives but put the jobs and daily lives of many in jeopardy.” This is true not only in Third World societies, but also in developed countries as well, including the United States. The overall picture of the US economy is down, with over 26 million jobs lost in just five weeks due to the pandemic. (Zarrola 2020)

While the challenge from nationalism and populism is apparent, it can be said that powerful interests might continue to control policy directions in a post-Covid world. So, the problems of the poorest of the poor will remain. A post-pandemic world must consider not only the comfort zones of people, but must also attempt to alter unjust systems and unfair power relations. This means dismantling corporate greed. We must recognize the value of human solidarity. A post-normal world envisions to end the shameless and willful display of self-serving interests.

The pandemic is a wake-up call to human decency. It shows not only the limits of man’s body but also of the power of governmentality. (See Foucault 2007) Governments cannot have absolute control on the fate of the people. Indeed, the pandemic shows that there must

be decency even in dying. (See Camus 1948) Those who suffer from loss realize that there is no need to return to one's comfort zones. The pandemic is not only a question of science. It reveals an existential character that is grounded in the truism that human life is finite. Alain de Botton (2020) explains: "...actual historical incidents we call plagues are merely concentrations of a universal precondition, dramatic instances of a perpetual rule: that all human beings are vulnerable to being randomly exterminated at any time, by a virus, an accident or the actions of our fellow man."

But Covid-19 does not mark the end of man. Rather, it will usher the start of a new global order that will force those at the top to change their worldviews. Modern societies can only survive in the reinterpretation of values. Old ways must die to give birth to the new. But it will not be easy. Access to potential vaccines has now metamorphosed into a nationalistic issue. Human survival is tied to corporate interests. Political stability as well as profit are the main agenda of rent-seeking groups. The poor stays last in terms of priority.

Human beings know that personal comfort is never as important as human survival. But a strong sense of nationalism will mean that countries will prioritize the health and security of their own citizens. This overprotective attitude might kill more people than the virus itself. What the world needs right now is a shift in the way states deal with things. Meaning is not always visible. The pandemic is a search for the truth. It reveals what really matters in life and the things that we must value.

Progress must prioritize people, not things. Covid-19 has put the brakes on globalization. But this is temporary, although people know that there is no need to go back to that type of development that has made the lives of millions secondary to the concern for wealth. In the end, overcoming this pandemic will require a resolute faith in the human spirit and the resilience of people. The world will finally recognize that the value of humanity must prevail above all else.

Conclusion

A new normal world is the same world that we enjoyed, all because the configuration of power will not change. What is new will still be decided by the powerful and so many things remain the same: subservience to governmental control, the supremacy of policy over moral integrity, and the unequal positioning of people. In contrast, a post-normal world is one in which change determines the way things are done. The ways of old die as we grapple with an existential threat. Nationalist agenda must be put aside and human solidarity in finding a vaccine should guide governments. Man is not made for profit or even the glory of nations. Man is made for the good of his fellow human being.

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COVID-19 and Spiritual Needs of Filipinos: The Battle against Faith Expression and Fear of the Virus

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Abstract

The COVID-19 pandemic had caused disturbances in the lives of people all over the world including in church services. In this paper, I argue on the merits of returning the church services in the Philippines to cater to the Filipinos' spiritual needs, but at the same time considering their practicality and the lingering fear of death because of the pandemic. This paper further argues that the Filipinos' faith during this pandemic is tested, especially the absence or less access to communal spiritual activities.

Keywords: COVID-19, spiritual health, holy mass, faith, Philippines

Introduction

Like any other country in the world, the Philippines was not spared from the devastating effect of the COVID-19 pandemic. On March 12, 2020, President Rodrigo Roa Duterte declared the entire Metro Manila into community quarantine. Travels were suspended in Metro Manila. After one month, the president threatened a martial law-like lockdown after knowing the many people ignored the restrictions (Dancel, 2020). Some days after, the whole country was already in quarantine, meaning all mass gatherings were suspended, and there were travel restrictions. Naturally, church services were also suspended.

For weeks and even months, churchgoers could not visit churches to celebrate the holy mass, other sacramental celebrations, or prayer services, which caused for concerns among churchgoers. For example, in the Catholic Church, there is a daily mass, usually early morning. A good number of people attend these scheduled masses. Moreover, Catholic churches in the Philippines are steaming with people every Sunday, with

a schedule of three to seven masses. However, all of these services were stopped because of the quarantine protocols. The COVID-19 pandemic came as a surprise for many because of the enormous inconvenience it brought to humanity. This paper filled the gap in understanding how faith plays a role during a pandemic with specific emphasis on the motivation or demotivation of Catholic believers in attending church services against the danger of doing so.

I begin with background on the relationship between the Philippine state and the church. Then, I discuss the results of the interviews with selected churchgoers. This paper contributes to the debate on whether faith or fear death has a strong influence among Catholic believers during a pandemic when it comes to attending church services, particularly the Holy Eucharist or Holy Mass.

The Church and the State

The Philippine government and the Catholic Church maintain the separation of state and the church, as mandated in the Philippine constitution. However, there were clashes in the past when seemingly the Catholic Church was meddling in political affairs. The Catholic Church in the Philippines is influential in many aspects, including politics. A great example of this was the 1986 EDSA revolution. Led by the late Cardinal Sin, people marched to EDSA, the main street in Manila, the capital of the Philippines, and demonstrated peacefully leading to the ouster of the president dictator- Ferdinand Marcos.

There were also issues that the Catholic Church was very vocal against the government, especially on issues like the death penalty, reproductive health, killings, and lately on the latter's response to COVID-19. While the country was still coping with the pandemic's problems, a controversial bill was passed by congress- the Anti-Terrorism Bill (ATB), waiting for the signature of the president. Despite the quarantine measures and the stern warning from the police to avoid mass gathering, especially protest rallies, some sectors of society still managed to stage a rally during the Philippine Independence Day celebration on June 12, 2020. Notably, some religious sectors, like the La Salle Brothers (Tiangco, 2020) and the Benedictine Nuns (Ramos, 2020) also staged their own version of protest. Even the Catholic Educational Association of the Philippines (CEAP), the biggest Catholic school organization in the country, was also one in opposing the ATB. Some Catholic bishops openly manifested their opposition to the bill. For example, Bishop Jose Colin Bagaforo of Kidapawan, the National Director of NASSA/Caritas Philippines and chairman of the Commission on Social Action Justice and Peace at the Catholic Bishops' Conference of the Philippines (CBCP), said: "The bill is a glaring attempt to silence critics and destroy any disagreement against the government, and consequently stifles people's freedom of expression, academic freedom, right to organize for human and social development and even freedom of the press."

As advised by the Inter-agency Task Force (IATF), the government allowed the return of religious services subject to some restrictions like specifying the number of attendees like only five or 10. Bishop Broderick Pabillo,

an apostolic administrator in one of the dioceses in the Philippines, tagged the government restrictions as laughable and unreasonable (Watkins, 2020). The bishop pointed out why there were limits on numbers while there were no limits for malls, offices, or factories. Amidst reports of some bishops questioning the government's measures, the president of the Catholic Bishop Conference of the Philippines (CBCP), Bishop Romulo Valles, asked his fellow bishops for calmness and cooperation to the government amid the COVID-19 pandemic (Aquino, 2020). Even during the COVID-19 pandemic, the tensions between the church and government continued.

After two months of suspending mass gatherings of people, including church services, there were calls from the church leaders and the faithful to return the prayer and sacramental celebrations inside the church. The main contention was that if malls and other stores were already allowed to open, why not the church, which is catering to a special need of the people - their spiritual health. As advised by the IATF, church services were allowed subject to certain conditions like the minimum health standards of wearing masks, social distancing, and hand sanitizing.

Importance of the Eucharist

One of the most important church celebrations that Filipinos look forward to because of the church services' return was the Holy Mass or Holy Eucharist. It is the highest form of prayer. Are they not satisfied with attending this celebration online? The answer lies in the essence of this particular sacrament.

Firstly, Filipinos "feel naturally at home in breaking bread together with Jesus" (CBCP, 38). It is already part of the life-system of Filipino Catholics. One churchgoer shared a view saying: "*Nindot man gyud ang pag tambong sa misa sulod sa simbahan kay maka pangumpisal ka, maka dungog kay pulong sa Ginoo, maka dungog ka sa Homily sa pari, maka pangalawat ka, maka kanta kas mga nindot nga mga Christian songs.. para nako Imporante pd na ang pag tambong sa misa sulod sa simbahan kay lahi ra kaayo sa self-prayer or reflection.*" (It is better when we attend the mass inside the church because you can confess your sins, hear the Word of God, hear the homily of the priest, take communion, and sing beautiful Christians songs. I need to have the mass inside the church because it is very different from self-prayer or reflection.)

Another participant emphasized the importance of joining the church compared to watching it through television or live streaming on the internet. She said: "*Importante kaayo para nako ang pag apil sa misa ddo sa simbahan kay pinaagi niini mabati gyud nako ang presensya sa Ginoo. Lahi ra jud kung online mass.*" (For me, attending the mass in the church is very important because I can really feel God's presence. Online masses are very different.)

Secondly, coming together in the celebration is not just a mere social gathering. It is "koinonia, "the transforming, the transforming communion we have in the Eucharistic celebration as members of Christ's Body" (CBCP, 489). Catholics believe in the communitarian dimension of their faith. Attending the Holy Eucharist is

not just a social gathering, but it is also a spiritual communion with God and with each other. Another churchgoer shared: "*Importante ang pag-apil sa misa sa simbahan bisan pa sa panahon sa COVID 19 tungod kay halangdong ang misa makadungod ta sa pulong sa Ginoo, lahi ra ang katilingbangon pag-ampo kay daghan ang mag-ampo. Naa man tay personal prayer, pero lahi ra jud ang katilingbanong pag-ampo. Dire masukod ang atong pagkakristiyanos. Pero wala nagpasabot nga dili ta mosunod sa mga balaod sa simbahan, ato jud nang sundon ang pag wear a mask, magbutang ug alcohol pagsulod sa simbahan ug social distancing.*" (It is important to attend a mass inside the church even during this time of COVID-19 pandemic because the mass is very important; we can hear the Word of God. It is very different when it is a communal prayer where many are together in prayer. There is a personal prayer, but communal prayer is very different. This situation now is a test of being Christian. However, it does not mean we do not follow the rules in the church. These should be followed like wearing a mask, use of alcohol, and social distancing.)

Thirdly, the Eucharist has a redemptive value. In Matthew's gospel, on the Holy Eucharist institution during the Last Supper, Jesus said, "This is my blood, the blood of the covenant, to be poured out in behalf of many for the forgiveness of sins" (Mt 26:28). Christ is the New Paschal Lamb, sacrificed to redeem the people (cf. Jn 19:36; 1:29,36). Catholics believe in the redemptive power of the Eucharist. They also receive communion believing in the power of Jesus living in them. At this time of crisis, people long for a liberator from the slavery of the pandemic. A churchgoer shared this thought about the importance of receiving Jesus in the Eucharist saying "*Importante kaayo kay physical jud nga madawat ang Holy Eucharist* (It is important because you receive the Holy Eucharist physically.)"

People's Reluctance

Despite the churches' opening, subject to observance of protocols like social distancing, there were very few who managed to attend the Eucharistic celebrations. For example, the daily masses did not receive many churchgoers. According to one person who attended daily masses in one of the cathedrals in Southern Philippines, "there were only 10 to 15 people". Though Catholics desired to go back to the church to attend the sacramental celebrations like the Eucharist, there was still fear. Others, especially the senior citizens who are still prevented from going out, had no choice but to stay at home and celebrate the Holy Eucharist via live streaming in Facebook or Youtube. One participant, who did not join celebrations inside the church, said: "*Importante kaayo apan delikado. Maong mag-mpo na lang sa tagsa-tagsa na panimalay.*" (It is important but risky. It is better to pray in our respective homes.)

Also, another participant shared the importance of attending the Holy Eucharist. However, he explained the practicality and even offered other forms of connecting with God. He said: "*Importante and pag-apil sa misa sa simbahan kay ang pagtoo naa man communal dimension. Pero tungod sa sitwasyon mapugos na mag stay sa balaya but still worhsip God because family is a domestic church.*

Ang importante maka connect sa source bisan if dili jud sa simbahan na naay building but sa kalibutan as a church also, sa kinaiyahan isip usa ka lugar na naa ang Ginoo." (Attending the mass is important because faith has a communal dimension. However, the situation forced people to stay at home, but still, worship God because the family is a domestic church. The important thing is to connect to the source even not inside the church building. The world is a church, and also nature where God is present.

Discussion

The government and the Philippine church continue to respect each other, as mandated by the constitution. However, there are instances wherein conflict arises when the state feels the church is encroaching the field of politics away from its nature as a religious organization. During the COVID-19 pandemic, however, both the church and the state were united as to the measures of addressing the problem. There were, however, few concerns, especially on the permission of returning church services with restrictions. Nevertheless, the church followed the protocols. As of this writing, Catholic masses on Sundays were conducted with church officials ensuring the safety of everyone by following the minimum safety standards such as wearing masks and social distancing.

Based on the participants' responses, the celebration of the Holy Eucharist is essential to their faith. The Catholic Church considers the Eucharist "the source and summit of the Christian life" (Constitution, 1994:1324). It is the highest form of prayers for Catholics. While there are other prayers, such as personal prayers, novenas, and rituals, the Holy Eucharist or the Holy Mass is incomparable. The church says (Constitution, 1994: 1327), "Our way of thinking is attuned to the Eucharist, and the Eucharist in turn confirms our way of thinking." Undeniably, the celebration of the Holy Eucharist is of utmost importance, especially during times of crisis. Hence, the Filipino Catholics were overjoyed to learn that the government allowed the return of church services, including the Holy Mass.

Despite the opening of churches, Filipino Catholics were hesitant, as manifested by the few numbers of attendees of the Holy Mass, even during Sundays. As shared by the participants, they were reluctant to fearing for their lives. They were afraid to be infected by the virus if they go to church and join the celebration of the Holy Eucharist. There was tension. Were they afraid of death, or were they strong with their faith? According to Nail (2020), the prediction of a first-century B.C. philosopher Lucretius that "the fear of death could lead to irrational beliefs and actions that could harm society" is happening during this pandemic. Neil added that Lucretius believed that people are not afraid of death when there is no threat of death. Following this thought, the experience of the participants, and probably of the many Filipino Catholics, fear of death influenced their reluctance to attend the Holy Mass, although church officials ensured the safety of attendees.

Though Filipinos also believe that the concept of death due to old age or God's will, Filipino children are aware that tragedy, like a pandemic for this matter, can bring

about death (Macabulos, Adona, & Sedilla, 2015). The COVID-19 pandemic trigger fears among believers. They know the pandemic is deadly, based on the news and reports they receive. A pandemic brings death anxiety to everyone. In a study about death anxiety and self-esteem, it was found that young Filipinos have higher death anxiety (Reyes et al., 2017). In other words, fear of death remains a reality among Filipinos, including Catholic believers. Moreover, this fear of death has intensified during this COVID-19 pandemic.

Conclusion

Catholics believe in the Eucharist as the center of their Christian life. However, they are also citizens of a country where rules and regulations have to be followed, especially during a pandemic. They believe in God's power and the importance of the Eucharist, but they are also afraid to attend celebrations inside the church. Some were brave enough to attend with strict adherence to minimum health standards, particularly social distancing. Hence, not joining the mass inside the church even it is already allowed is a test of one's faith. Some are following the practicality of keeping oneself safe, and therefore, avoiding death. A pandemic, like COVID-19, is a battle between faith and fear of death.

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Laying the groundworks for education of children in the new normal: The case of DepEd Southern Mindanao

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Abstract

The COVID-19 pandemic has brought challenging situations for educational institutions to continually provide meaningful and significant learning for the students across all nations. As educators, these pressing challenges motivated us to conduct a study on how prepared the schools and the Department of Education (DepEd) in the delivery of quality education in spite of the sudden crisis. This paper discusses the preparations of educational institutions to continually provide means of learning across all types of learners. Our inquiry from selected educational leaders, supervisors and curriculum specialists, as well as from the teachers, confirmed that the Department of Education, especially in Southern Mindanao, has explored different means to continue its service for the Filipino learners. These include online learning, modular learning, television and radio-based instruction. Moreover, schools in Southern Mindanao have also considered blended or hybrid learning as modality for this year considering the different situations of students. This paper discusses the different implications of this new learning modality not only to the learners but also to their parents, teachers, to educational and government leaders as well.

Introduction

The COVID-19 pandemic has caused significant impacts on various sectors affecting the human lives. One of the most affected sectors due to this crisis is the educational sector (Tria, 2020). Because of this challenging situation, educational institutions were forced to postpone the conduct of face-to-face classes and shifted to on-line or modular classes. Some schools even discontinued their operations as an immediate response to this global health emergency.

According to Audrey Azoulay, UNESCO Director General, "While temporary school closures as a result of health and other crises are not new unfortunately, the global scale and speed of the current educational disruption is unparalleled and, if prolonged, could threaten the right to education". As a matter of fact, for almost six months of being threatened with this pandemic, many countries around the globe have permanently closed educational institutions to contain the spread of the virus and reduce infections where 1.5 billion learners worldwide with more than 27 million learners in the Philippines were affected with this situation (UNESCO, 2020).

In response to this threat, educational leaders around the globe decided to adopt with the so-called "education in the new normal". In the Philippines, the Department of Education (DepEd) provides mechanisms to address the pressing educational challenges brought by COVID-19. On June 9, 2020, a DepEd Order Number 12, Series of 2020 (D.O. 12, S. 2020) on the "Adoption of the Basic

Education Learning Continuity Plan for School Year 2020-2021 in Light of the COVID-19 Public Health Emergency” was released by DepEd National Office. The D.O. 12, S. 2020 is a package of education interventions that will respond to the basic education challenges brought by the COVID-19 pandemic. Furthermore, the DepEd is committed to provide various alternative learning modalities replacing the conventional face-to-face in support to the proclamation of the President of the Republic of the Philippines not to have face-to-face classes until it is safe to do so.²⁴

In Southern Mindanao, there are significant number of schools in remote areas where internet signal is a constant struggle. In addition, there are many families who do not have the means to acquire the necessary tools such as laptops, computer desktops, android cellphones or smart phones and also internet connectivity that are needed for this new normal education to operate well.

As educators and as a family of educators, this current situation has ushered us into deep reflection on how quality, inclusive and accessible education would be feasible for every Filipino learner. Hence, we participated in different Webinars that are geared towards responding to these challenges. On our individual levels, we also prepared for this kind of education in this new normal. Thus, we bought some gadgets, prepared modules and course pack for the next school year, and participated in different training. But on the institutional levels, DepEd is laying the ground works for the education of children in the new normal. While there are preparations in the National level, some regions, divisions and districts have also their own preparations depending on the current needs and situations of their learners and their families.

The intention of this paper is to discuss the preparations as well as the different implications of the preparations of DepEd Southern Mindanao specifically involving, divisions of Davao City, Davao del Sur, Davao Occidental, Digos City and Sarangani Province for the education of students in the coming school year. These are the only divisions in DepEd Southern Mindanao that we have interviewed educational leaders, curriculum specialists as well as teachers on their current preparations. Since we are also educators and a family of educators in Southern Mindanao, we are also aware and in fact, very much involved in many of these preparations to continually provide means of learning across all types of learners as a response to this health emergency situation. To have robust data, we asked educational leaders, curriculum specialists and teachers in DepEd Southern Mindanao the following questions:

1. *What are the necessary preparations being done by the teachers and school administrators for the education of children in the new normal?*

2. *What help they still need from the government, civil society organizations and also the parents as well as the entire community?*

Preparing for the new normal in education

As part of the learning continuity plan for the basic education, under the umbrella of the Department of Education, the creation of D.O. No. 8 S. 2020, or otherwise known as “Guidelines on Enrollment for School Year 2020-2021 in the Context of the Public Health Emergency due to COVID-19” provides guidelines for parents, and other school community members for multiple learning delivery modalities such as blended learning, distance learning, and homeschooling, on top or to replace face-to-face learning modality in order to reduce exposure of learners and teachers to COVID-19.²⁵

This modified remote enrolment guides parents, legal guardians and teachers for the enrolment of learners for SY 2020-2021. Because of this, teachers distribute Learner Enrolment Survey Form (LESF) to identify the learning needs of every learner. Items included in the LESF are the personal background of the learners, available learning resources at home (e.g. phone, television, radio and others), internet availability and preferred learning modality.

In support to this, the adoption of the Department of Education on the Basic Education-Learning Continuity Plan (BE-LCP), as stipulated in D.O. 12 S. 2020, has included the adoption of the Most Essential Learning Competencies (MELCs) as one of the vital preparations for the opening of the new school year.

The BE-LCP streamlines the K to 12 Curriculum into the MELCs that shall be delivered in multiple learning modalities and platforms. These set of competencies shall be used by field implementers, such as teachers and “learning facilitators” nationwide. These Most Essential Learning Competencies focus on the most essential learning requirements for the students. Moreover, DepEd highlighted that the release of the MELCs is not just a response to this current pandemic, but also part of the department’s long-term response in developing resilient systems, most especially during emergencies. Therefore, these can be used under certain circumstances as a mechanism to endure education continuity through curriculum dimension.²⁶

Another preparation made by the DepEd, as part of the BE-LCP, is the creation of learning resources and platforms committee to ensure that appropriate learning resources of good quality are made available for the learners, and that the necessary platforms of technologies are engaged or made available in timely and efficient manner. Furthermore, these learning resources include printed, digital online and offline, television and radio.²⁷

While the DepEd Central Office has been laying the ground works for the education of children, the different Regions and Divisions around the Philippines have also made some preparations to cope with the demands of this new normal depending on the primary needs and context of their respective areas.

For this paper, we interviewed educational leaders and supervisors, curriculum specialists, and also, those

²⁴ https://www.deped.gov.ph/wp-content/uploads/2020/06/DO_s2020_012.pdf

²⁵ https://www.deped.gov.ph/wp-content/uploads/2020/05/DO_s2020_008-Guidelines-on-Enrollment-for-SY-2020-2021.pdf

²⁶ <https://commons.deped.gov.ph/MELCS-Guidelines.pdf>

²⁷ <https://commons.deped.gov.ph/MELCS-Guidelines.pdf>

working on the grassroots in DepEd Southern Mindanao on how prepared are we in embracing this “new normal in education”. This educational leaders and teachers came from the Divisions of Davao City, Davao del Sur, Davao Occidental, Digos City and Sarangani Province. Since as educators we are very much involved in this preparation, we also included some of our experiences in the discussion of the results of this study.

Results and discussion

The next sections of this paper will discuss the results of our in-depth interview with the as well as their implications to the different aspects of the lives of the learners, the teachers, the government leaders and the entire community.

Preparations of the DepEd Southern Mindanao:

When we asked our study participants about the necessary preparations done for the education of students in the new normal, their responses fall into the following themes: *modular making, online learning delivery, radio-based and television instruction.*

Making of modules. In a press released by the Department of Education, Secretary Briones emphasized that the regions all over the Philippines have been busy preparing and making of Self-Learning Modules for education’s new normal. These materials come in printed format to make it accessible for remote areas who have difficulty in terms of internet connectivity.²⁸

In the different Divisions of Southern Mindanao, all of our study participants said that they are busy in the making and contextualizing modules to meet the needs of their learners, most especially that they come from diverse culture and backgrounds. For example, in Davao City division, a teacher says, *“our focus now is module making because it has been emphasized in our division that we will focus on modular education.”* Similarly, an educational supervisor in the division of Davao Occidental also shares, *“we will be doing modular education because most of our learners do not have internet connection. But we will also have on-line learning for those who have gadgets and internet connectivity and who chose on-line learning.”* In the Division of Sarangani, Region 12, the Self-Learning Modules (SLMs) were already made even before the Covid-19 outbreak most especially that schools in these areas are situated in remote and far-flung locations where accessibility to internet is really challenging. DepEd Sarangani has been committed, and even partnered to private agencies in the making of these modules, to primarily provide assistance to athletes who joined Palarong Pambansa yearly. These athletes are gathered for a month-long training and so with this, the Division would like to support their learning continuity which gave birth to the SLMs.

During COVID-19 pandemic, DepEd-Sarangani considered the use of these SLMs to cater the needs of the learners in the province. In this time of pandemic, the composition of these SLMs became wider as this is being included in the Self-Learning Kits (SLK). The SLK is

composed of the developed SLM and the Learning Activity Sheets (LAS). The LAS is created as a supplementary material providing additional exercises and activities to achieve the necessary desirable skills expected from the learners to develop. Sarangani Province being one of the rural areas in Southern Mindanao has 320 public schools, elementary and secondary, where 180 of which are serving more or less 60,000 IP (Indigenous People) Learners. This LAS are contextualized and indigenized according to the needs of the local people present in the area.

Likewise, the DepEd Digos City has been preparing also for the modular learning of the students. An education supervisor in DepEd Digos City division, *“the Division of Digos City is also preparing for the modular learning delivery where learners are expected to use interactive modules and worksheets while safely learning at their respective homes”.* This is also the same scenario in the division of Davao del Sur. According to education specialist assigned in DepEd Davao del Sur, *“the division of Davao del Sur is already preparing for modules for modular education in the new normal.”* This has been confirmed by the teachers that we have interviewed and even from our family members who are teachers in Davao del Sur that they are busy preparing modules and are participating in different module making trainings to prepare themselves for the educational changes in the coming school year.

Online learning delivery. Distance learning through online learning is also one of the modalities being considered for the continuity of learning delivery. In DepEd Digos City, an education supervisor says that *“teachers have undergone various trainings on how to navigate, explore and made use of the online learning delivery”.* The DepEd division of Digos City assured the parents that, with an internet connection and their learning gadgets such as laptops, tablets or smartphones, learners can continually participate in online classes through a virtual classroom. Teachers can present lessons and learners participate and interact to the teacher and their fellow learners through the virtual classroom in the safety of their homes (DepEd Tayo Digos City, Official Facebook Information Page, 2020).

However, this online learning delivery requires a huge amount of budget to acquire gadgets and strong internet connectivity for it to be effectively accessed by the learners. This becomes a burden to the poor students and those living at the peripheries. This is especially evident among the learners in Southern Mindanao especially in the division of Davao Occidental and the Division of Sarangani province where majority of the learners belong to the marginalized sector.

With this challenging situation, the curriculum and IT experts in the Division of Sarangani innovate a learning platform where learners from Sarangani would experience the digital online learning platform through the Learning Resource on Wi-Fi Hub for Expanded e-Learning in Sarangani (LR on WHEeLs).

²⁸ <https://www.deped.gov.ph/2020/07/02/deped-prepares-self-learning-modules-for-educations-new-normal/>

The LR on WHEeLS is an innovation of DepEd Sarangani making learning possible and accessible even without internet connectivity or even those who have difficulty on signal reception. These are more advantageous especially in remote communities that are beyond the reach of internet service.

This innovation made use of the Learning Management System (LMS) where learners are provided opportunities to access learning materials in the form of digital learning resource like documents, videos, and interactive worksheets. With this LMS, learners and teachers can access the learning materials through the use of tablets, smartphones, laptops and computers via a web-based platform. This is a local service using Intranet Connection which is designed solely for learning purposes which delimits access to online games and other social networking sites which may distract learners to learn (DepEd Tayo Sarangani, Official Facebook Information Page, 2020).

However, this can only be availed by those who have gadgets such as desktop computers, laptops, tablets and cellphones. But for those who do not have gadgets, this LR on WHEeLS is not applicable. Given the economic realities and circumstances of most of the learners in Southern Mindanao, this learning innovation is only applicable to the rich students and those that can afford to buy laptops, desktop computers and also tablets.

Radio and television-based instruction. As part of the preparation on the onset of the new school year, DepEd Southern Mindanao has initiated various programs to cope with the educational during Covid-19 outbreak. Part of the preparations made by DepEd-Sarangani is the development of LAS which shall be used during Radio Based Instruction (RBI). The LAS are contextualized and indigenized according to the needs of the people in the locality. The IP Education LAS were developed last year by the DepEd Sarangani, in partnership with Sulong Sarangani and Smart Communications, Inc. These materials will be also be used for the RBI.

The RBI is delivered to the learners through live lectures and/or audio-recorded lectures that are aired over the radio. Schools will provide schedules for the RBI sessions to guide the learners in accomplishing the SLK which contain modules and LAS which are prepared and delivered by teachers to their (learners) respective homes at the beginning of the week. The completed LAS are collected from the learners every end of the school week.

As part of the preparation of this LAS, a simulation of the RBI program was conducted at a B'laan community in Malapatan, Sarangani Province where *Calay IP School* is located. Sitio (village) leaders of this remote are have been identified to help the school in the delivery of the SLK to the homes of the learners and for the submission of the completed LAS to the teachers (DepEd Tayo Sarangani, Official Facebook Information Page, 2020).

Meanwhile, DepEd Digos City has also made their preparations for the Radio and Television Learning Delivery. Digos City DepEd division already tied up with various radio stations in the locality such as DXDS, MEWS Radio, DXPM, DaBigC Radio, Charm Radio and Energy FM to ensure that learners will continue to learn even

without necessarily going out for school. *"Through this radio-based instruction, learners will be able to listen to the lectures in Elementary, Junior High School and Senior High School"* according to an education specialist in DepEd Digos City division. Moreover, DepEd Digos City and Sur Telemedia, a cable company in Digos also signed a Memorandum of Agreement (MOA) last July 7, 2020. This MOA covers the guidelines on TV Learning Delivery Partnership to allow DepEd-Digos City to broadcast TV lesson straight to the homes of learners through Digos Cable TV. With a minimal fee, household can avail of cable services from Sur Telemedia and tune in to Channels 18 and 19 where they can view TV lessons beginning August 24 (DepEd Tayo Digos City, Official Facebook Information Page, 2020). RBI is also being explored by the division of Davao Occidental and division of Davao del Sur.

Help they still need from the government, civil society organizations, the parents as well as the entire community. These preparations not only entail budget but also support from different stakeholders and also acceptance from the parents. Thus, we asked our selected participants what help do they need from the government, civil society organizations, the LGUs, the parents and the entire community. Their answers can be clustered on the following themes: *Support in the technical and other capacity building activities for teachers, support in letting the parents understand and accept the new normal and also support in the acquisition of materials for the module making.*

Support in the technical and other capacity building activities for teachers. For education specialists and some teachers in Davao del Sur, what they need is support in the technical aspects as well as in the capacities of the teachers in the preparation as well as in the delivery of the on-line learning. While there had been series of webinars, they still want to have much more detailed training and workshops to be able to acquire the necessary skills. This is also the sentiment of an education supervisor in Davao Occidental when she says *"we also need support from the private sectors especially from the academe on the training of teachers for module making and other preparations."*

Indeed, despite the series of on-line training and seminars that teachers were mandated to attend, some education supervisors in DepEd Southern Mindanao still want to have more training for their teachers. This is where some private schools that have the technical expertise can also extend their help to some DepEd schools in Southern Mindanao. Since private schools are also organizing series of trainings for their teachers, they can extend some slots to public school teachers. But since public school and private school may have different format in making the modules, they can just contextualize their knowledge and skills according to their accepted and standardized format.

Support in letting the parents understand and accept the new normal. For an education specialist in DepEd Digos City, they really need support from other sectors to educate and orient the parents that education will still

continue in the new normal. This is also affirmed by an education supervisor in Davao del Sur when he says, *“parents should force themselves to accept this new normal way of education and we need support from other people to let the parents understand and accept the situation.”*

In our casual conversations with some parents especially in the far-flung areas, they really have worries on how the education will happen in the new normal. While some of them are negative, there are significant numbers who are positive and hopeful that the education of their children would still happen even during pandemic. To further pacify the fears and worries of parents, meetings and orientations of parents must be done. In some private schools in Digos City, they have already conducted series of orientation with their parents to assure them that the education of their children will continue despite the pandemic.

If it is impossible to conduct physical orientation with the parents considering many factors, DepEd can ask help from local radio and TV stations to give them time to discuss and inform the community about their preparations. They can also post and share in the social media the preparations that they have conducted for the public to be aware. In addition, they can do mobile radio announcement to different municipalities and barangays to inform the public about their preparations.

Some teachers have been conducting remote enrolment by texting or calling the parents for the enrollment of their children and explaining to them the preparations that they have already done for the education in the new normal. But despite all these preparations, they will want support from other stakeholders to educate the parents that indeed the education of their children will continue despite the threat of COVID-19 pandemic and that, they should support the program and initiative of DepEd.

Support in the acquisition of materials for module making. One of the many concerns that public school teachers face this time is the budget they need for the printing of the modules to be distributed to all their students. *“Imagine, our module will reach 15-20 pages per subject and if you have 8 subjects and 30 students, that will cause you significant amount in buying for bond papers, printers and also ink”* according to a teacher that we have interviewed. Another teacher in Davao City says, *“as of now what I am worried about is how to acquire the needed materials for the module since we are asked to give each student the module. I am now buying printer and ink and some bond papers but these will not last long.”*

Because of this, an education supervisor in Davao del Sur says that *“they are asking for help from different individuals and groups for the materials that they need.”* The same concern is being echoed by an education supervisor in Davao Occidental when she says, *“our budget for materials is not enough for the vast needs of our learners that is why we are asking for support from different groups and individuals to augment our need.”*

While asking for help from parents and other stakeholders is indeed acceptable during this time of pandemic, let us be reminded that many parents and also stakeholders have been affected not only emotionally but

mostly, financially by the COVID-19 outbreak. Thus, they might not be able to really provide the needed assistance as compared before. It might be good that the DepEd will really utilize their Management of Operation and Other Expenses (MOOE) funds solely for the printing and reproduction of learning modules for the students as well as internet and other infrastructure support for the teachers so that the teachers will not appear to be beggars in the public sphere. If there are donations coming from generous groups and individuals, they are surely welcome but looking for donors and sponsors should not be the priority of the public school teachers during this time.

Implications

While DepEd Southern Mindanao is doing proactive preparations for the education of students in the new normal, the support of the whole community is very much needed during this time of crisis because all these preparations will not be successful without the support of the different stakeholders.

In the case of on-line learning, it is only successful if the students have gadgets and strong internet connection. But the real situation of many of our learners is that they do not have gadgets. While some students have gadgets, they also do not have internet connections. For those who have gadgets and internet connections, they also need to be properly trained on how to make use of these technologies. It is not only the students who need training, the teachers themselves also need to be properly trained. This becomes challenging to many teachers specially those who are already in their 50s and above because many of them show resistance to this new normal. One teacher in Davao City says, *“we have decided to have modular learning because many of our old teachers show resistance to the use of technology. Some of them verbally articulated their resistance while others show passive resistance during series of trainings. They do not show interests to learn and adopt to the new technology.”*

While radio and TV based instruction is good initiative, it also needs proper coordination and scheduling so that that the intended audience will really be present during the discussions and lectures. Students and their parents must know the schedules and also topics to be discussed via radio and TV. It is also important that there will be time for question and answer or open forum where students can call their teachers and ask questions or clarifications or even answer the questions posed by the teachers. For the community or the barangay it might be good if they can set up big screens and good sound systems in their barangay where the students can converge in small groups to maintain the social dimension of their education. Topics and activities must also be related to the real life situations of the learners to sustain their interests.

In the aspect of modular learning and on-line, there is an issue of quality of learning on the part of many students. Many of them said that they even have difficulty in learning many difficult concepts during face-to-face education, how much more in modular learning. Thus, it might be good that teachers will really have time

to discuss the lessons to the students. They just have to schedule to lectures or discussion via radio, TV, or through on-line platforms so that the students can also organize their activities as well as the needed budget for this purpose. Still, this mode of learning is only applicable to those who have the means to acquire the necessary tools and materials needed for their education. But for the majority who are poor, their main concern now is how to survive the economic impact of this pandemic. Indeed, while many people said that this pandemic is an equalizer, for me it only heighten the disparity between the rich and the poor in the society. While the rich can take advantage of the situations and still manage to live their “normal” and comfortable lives even during lockdown, the poor cannot even maintain physical distancing in their dilapidated shanties, do not have access to healthy food and do not have the means to earn money because of lockdown.

Conclusion

The COVID-19 pandemic has really changed many aspects of our lives. But this crisis is also an opportunity to evaluate and assess the education system of the Philippines. In many community schools established by NGOs and Church missionaries in the remote areas of Mindanao, they have implemented not only culture sensitive curriculum but also community based instruction. They have trained “education facilitators” to teach the children. These education facilitators are young people from the community. Some of them are just high school graduates but with the formation and training given by the NGO and Church missionaries, they are well equipped to teach the students. In fact, during different school competitions, the students from these schools performed better than some DepEd schools who have employed “licensed teachers”.

The same with their secondary community schools, they also hired adults who are college students but advanced in other trainings. They trained them and assigned to their secondary schools. The students in these schools also survived and even performed well in college. In addition, since they live in the community and are members of their tribes, they have implemented culture sensitive curriculum. But these community schools under threat. The threats also come from the DepEd officials saying that their schools cannot be recognized by the department because their teachers are not “qualified” according to their standard. Some DepEd schools do not even accept students who graduated from the community schools because for them they fall short in terms of skills and competencies. Because most of the parents opted to send their children to these community schools, they have less enrollment and with less enrollment, they have less budget for the MOOE.

Other threat that some of these schools faced come from the military. Because these schools included environmental protection, human rights education and sustainable agriculture as part of their curriculum, they were suspected to be training grounds for rebels. While there are also graduates of these schools who became rebels and even commanders of rebel groups, their decision to join the revolutionary group is solely based on their own awakening of the situation and not because

the schools asked them to become rebels. As a result of these threats, most of these schools have been closed, some were burned by the military and some were turned-over to the DepEd. But there are still some who continue to operate until this time because they have secured permits from the government and clearance from the military.

If this model of community based instruction will be adapted by the DepEd during this time of a pandemic, education of students might continue and also education of the youth. While they will be hired as “learning facilitators” in their respective communities, they will also learn in the process. They might also have their own time to learn with the help of more advanced adults who will become their “learning facilitators”. The DepEd can coordinate with community leaders to scout for these available learning facilitators in the locality, trained them and then deploy them as “teacher aids” or “learning facilitators”. The DepEd can instill a sense of responsibility and volunteerism amongst these “teacher aids”. Since these people live in the same community, there is less probability of local transmission as compared to having teachers who come up to stay with the children and go down to the cities or municipalities where they live.

Indeed, there must be important decisions to be made during this time of crisis. On the part of the government, it might be good that they will be proactive in their responses to COVID-19 pandemic and its effects to different sectors, especially the education sector. As early as now, it would be good that they will consider putting up stable internet access to different communities (including the far-flung areas) in the country. Along with developing these technologies, it would be good that they will also endeavor to develop the proper ethical approach to these technologies. Thus, values and ethics education should be part of the educational paradigm of the country. With right values and ethical education, we can really be assured that the groundwork for transformative education in the country will happen. This transformative education is needed so that we can move forward as a people and a nation.

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Figuring out how to live in a post-pandemic world

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Abstract

This investigation looks into important questions in a post-pandemic world. Humans are resilient beings who have overcome great catastrophes in the past. In this Covid-19 pandemic, I happen to visit a depressed community in Sitio Malipayon (Happy Village) in which people seem to go on with their lives even with the existential threat from the pandemic. At the outset, the prejudices against the poor point to a lack of discipline. Yet, it is critical to understand that a return into the ordinariness of human life may possess the answers that can save modern society in a post-pandemic world.

The Plague, written by Albert Camus, is considered as “a kind of laboratory for studying attitudes towards itself.” (NYT 2020) This observation is demonstrated in the attitude of the priest, who sees the disease as a “punishment of God against the wickedness of modern life”; of Rambert, who has been separated “from the woman he loves”; and of Tarrou, “for whom it becomes the occasion of realizing his passion to correct an injustice at the center of society.” (Ibid.) Perhaps, the present pandemic may not end modern society as it is, but it makes obvious what modern society actually lacks.

The coronavirus pandemic, which has infected 13,238,448 and taken the life of 575,547 as of July 14, 2020²⁹, stirs fear among the people, especially in developing countries such as the Philippines. But what people dread does not come from the virus itself. It is the fear of the lack of clarity in terms of what the government wants to do given the circumstances millions are in. Some reports reveal a mismanagement of data. People are facing a bleak and an uncertain future as there are no guarantees in terms of the return to the normal states of affairs. The experience of stress and boredom, the loss of a job or source of income, have a negative impact in the lives of the people.

A different kind of death

Stranded individuals, especially displaced workers, experience hopelessness, anxiety, emotional pain and death. In Manila, 33 year-old Michelle Silvertino, a single mother, died after waiting for days to return home. (CNN, June 12, 2020) Death does not just come from the infection, but also due to the uncertainty of the future. The pandemic has forced many people worldwide into a situation of helplessness. Every death diminishes the meaning of life for those who are living, but maybe not, when it comes to those who do not accept their guilt. But if and when human life is ruined, Socrates has taught us that it is humanity itself that falls into the sphere of the tragic. (Levenson 1999, 143) With regard to our sense of moral accountability, power suppresses everything so that life is rendered without meaning for some.

Under strict government restrictions and state control, things are no longer normal. People realize that they have been stripped of their freedoms. The pandemic

poses a grave health risk, but repressive policies exact a heavy tool and burden on the population. Severe beating, exposure under the searing heat of the sun, being forced to swim into a dirty drainage system, are worse than the effect of the virus. The virus cannot demean people, but abusive methods of disciplining people does. For instance, *Human Rights Watch* has recorded cases of abuse of curfew violators in the Philippines. (HRW, March 26, 2020)

In India, thousands of migrant workers were forced to return home on barefoot after trains and other means of public transport were suspended. It was described as a situation of death and despair. (BBC 2020) The BBC reports: “For many, walking was the only option. Some travelled for a few hundred kilometres, while others covered more than a thousand to go home. They weren’t always alone - some had young children and others had pregnant wives, and the life they had built for themselves packed into their ragtag bags.” (Ibid.)

Back to Camus

According to Alain de Botton, Camus “was not writing about one plague in particular, nor was this narrowly, as has sometimes been suggested, a metaphoric tale about the Nazi occupation of France.” (NYT, March 19, 2020) De Botton argues that the French writer “was drawn to his theme because he believed that the actual historical incidents we call plagues are merely concentrations of a universal precondition, dramatic instances of a perpetual rule.” De Botton thinks that for Camus, “all human beings are vulnerable to being randomly exterminated at any time, by a virus, an accident or the actions of our fellow man.” He explains: “The people of Oran can’t accept this. Even when a quarter of the city is dying, they keep imagining reasons it won’t happen to them. They are modern people with phones, airplanes and newspapers. They are surely not going to die like the wretches of 17th-century London or 18th-century Canton.”

Camus believes that man cannot escape death. In fact, every pandemic is a theatre, just like war, of the death of humanity. For Camus, when it comes to man’s ultimate end, “there is no progress in history, there is no escape from our frailty.” Humans, as an everyday being-towards-death, has to finally admit to ourselves that “being alive always was and will always remain an emergency; it is truly an inescapable underlying condition.” On can even say, going back, that in the sad case of Silvertino, “plague or no plague, there is always, as it were, the plague, if what we mean by that is a susceptibility to sudden death, an event that can render our lives instantaneously meaningless.” Death is always in the horizon, although we are making all effort to avoid it. De Botton explicates Camus’s position:

“Eventually, after more than a year, the plague ebbs away. The townspeople celebrate. Suffering is over. Normality can return. But Dr. Rieux “knew that this chronicle could not be a story of definitive victory,” Camus writes. “It could only be the record of what had to be done and what, no doubt, would have to be done again, against this terror.” The plague, he continues, “never dies”; it “waits patiently in bedrooms, cellars, trunks,

²⁹ <https://www.worldometers.info/coronavirus/>

handkerchiefs and old papers" for the day when it will once again "rouse its rats and send them to die in some well-contented city."

Living in the Time of the Pandemic

Lockdowns have put people back into their souls. The pandemic proves to be a threat not only to human mortality, but to the meaning of life itself. People are frustrated. But soon, they will realize the things they cherished before the pandemic, e.g. coming home early given the toxic environment at workplaces. Perhaps, there is a new found joy in being locked inside our homes, which in the end will put into question the real meaning of life itself. In this case, many of our hard existential questions are awakened. For we often look for joy outside when true happiness must be inside.

Life is a quest to fill in the emptiness of our being. Hunger reveals the fragility of our physical existence, but starvation reminds us of our mortality. The food we put on the table does not only feed our physical bodies. It also nourishes our souls. It empowers the inner person, giving man the will to live. Food is the most important thing to ordinary people. In doing this study, I visited a depressed community not far away from the city. In that place, people live their daily lives as if there is no present existential threat from the pandemic. While local authorities point to the lack of discipline of the public, the everyday lives of ordinary people is trying to tell us something else.

No, it is not about a new way of living, which people love to call the "new normal," but how, just like in times past, life must be lived. The new normal is not really new. It is still centered on man as an economic and social being. It focuses on how man can protect himself as he moves and goes back to his daily routine. And yet, while we are trying to figure how to do things in the midst of this plague, the more important things in life, the reason why life, if at all, matters, is still taken for granted. People want to go back to their lives, without understanding the true meaning of this present unfolding. People just want to live as if they will never die. They do not ask what really matters. Below, Dipti Pandey (2020) re-echoes Viktor Frankl:

At that time, all efforts and all emotions were centered on one task — preserving one's own life and that of others. *When it comes down to preserving life, we all return to the basics.* The material things, then, do not seem of much importance.

The people who just want to live and go on with their lives is different from those people who seek pleasure or enjoyment in life. As such, it is problematic to compare the lives of the poor to those who miss going to the beaches and partying. The latter shows no concern whatever for their own well-being and the potential risks they bring. In contrast, people who go out to earn a living just want to feed their families because they know that they won't survive. When it comes to the question of survival, the poor often takes the value of living more seriously. In contrast, the rich among us will simply deem it as a period of adjustment to a new way of life. Camus (1948) correctly prophesied about these things:

From now on, it can be said that plague was the concern of all of us. Hitherto, surprised as he may have

been by the strange things happening around him, each individual citizen had gone about his business as usual, so far as this was possible. And no doubt he would have continued doing so. But once the town gates were shut, every one of us realized that all, the narrator included, were, so to speak, in the same boat, and each would have to adapt himself to the new conditions of life.

The prejudice against the poor

Sitio Malipayon (Happy Village), the community I visited, is isolated and transportation is difficult. While there is electricity, most of the houses of the informal settlers actually use "jumpers" or illegal electrical connections. There is no water distribution facility. Sanitation and hygiene are a huge problem, often resulting to the prevalence of tuberculosis. The people display their wares on the sidewalk. Children play on the dirt road while their parents are doing various chores. These are the forgotten people of the pandemic. While informal settlers are part of the mainstream population, they are actually ostracized and unfairly judged as lazy.

But the poor will survive. They are resilient in times of a crisis. The problem lies in the prejudice against them. Whenever government food ration is given, the poor are snarled at. Bad-tempered individuals wrongly view the poor as parasitic. In truth, such is a clear manifestation of disregard and the disrespect of human dignity. The reason seems obvious. The informal settlers are powerless. They are seen as overly dependent on the government for resources. As a matter of fact, such is a perpetual problem in societies that are politically immature where people do not have a sense of appreciation for the meaning and value of social justice.

The above view is typical of the wrong judgment against the poor who are often seen as eyesores. But the poor are actually victims of a greater social pathology – socio-economic discrimination. The reality is that they have been deprived of society's wealth that they are also entitled to. And yet, this does not follow that those who live in small houses and with meager income to spare except for a kilo of rice have no sense of the meaning of life. The joys of father who is happy to bring his catch to his family, a mother who takes care of her children, and young boys playing basketball in the open with a makeshift backboard attached to a dying tree, all provide the same excitement that expensive dining and the branded goods of the rich bring.

Structural injustice and the cries of the poor

Still, the poor are crying for help. Some beg on the streets. Their children are hungry. Exclusion is a problem that is rooted at the core of every capitalist society. It is a result of unjust structures. (Maboloc 2019a) The problem lies not only in the lack of resources of people, but in the positional differences in society that puts the poor at a disadvantage. The situation every time a government agency reaches out to hand doles had been chaotic. But the problem even extends far beyond that. Many people actually feel that they have been excluded. In such a scenario, the poor must learn how to assert their rights and entitlements.

The problem is not procedural. There is also a fundamental problem of leadership and culture which is

typical in many imperfect democracies. Politics is at the core of poor and developing economies. The trouble is all about the old ways of the politics of patronage which has been embedded in the ways things are done. For example, the *palakasan* (strong political ties) system is operative in Philippine political culture. While our sense of moral duty is what is needed to meaningfully serve the worst off in society, in the end, favoritism still prevails. In this respect, what remains is the critical question of justice.

The moral wrong lies in how ordinary people are being treated. The poor should not be seen as empty mouths to feed, but people who deserve a life worthy of being human. In this case, the government must act in such a way that it is aware of its moral mandate to serve the general population, while at the same time, recognizing the fact that all persons must be considered as ends in themselves, and not just a passive recipient of dole-outs from the state. The basic structure, indeed, must operate on the fundamental principle that “all persons are equal in dignity”. (Maboloc 2019b)

What matters in life?

Bioethics, the love of life (Macer 1998), is at the heart of this moral question. The pandemic must teach people what truly matters in life. It is not really about the “new normal”, but the need to rectify our biases and prejudices against others and finally recognize the value of each person. The pandemic has shown that material wealth is not everything. Money is not the most important thing in this world. Money only matters because it is a means towards something. In the end, it is again a question of value. In this way, “this crisis also allows us to find additional meaning in our lives. Little things all of a sudden become very important.” (Pandey 2020)

We must learn how to carefully distinguish between “means” and “ends”. Work is not an end-in-itself but an instrument towards something. Income is important but it cannot be the most important. The focus on the economy, policy-wise, is the state’s prerogative, but as a human being one must realize that life is not just about possessions, but relations. It is about how we value family and care for them. In Canada, for instance, many deaths have been recorded in long term care facilities. (WSP, May 18, 2020) As a society, the failure to recognize the value of life itself is morally unacceptable.

Back to Sitio Malipayon, it seems that the fact that they have been isolated for a long time from mainstream society is a good thing. So far, there has not been any reported case. One finding is that the pandemic impacts societies that are linked by globalization and consumer culture. (Maboloc 2020) Indigenous communities in Davao del Sur, the Philippines, for instance, have not been affected by the virus. (Bayod 2020) Although there are complaints from village officials, the fact of the matter is that in my observation, the poor in this community are free from Covid-19 because they have been separated from the way of life of mainstream society.

Ordinary people are teaching us that life must go on. God, Plato declares in *The Republic*, “is good and is responsible only for good.” So that we can only say that man is actually responsible for his own destruction. The

poor is showing the way in terms of moral courage why we must continue to live – life is the most precious gift of all. And even in the midst of every problem that fate throws at us, we only have our very freedom at our disposal. The poor may lack more in terms of what nurtures the body, but it is the will to live that actually strengthens the soul.

Conclusion

Central to Camus’s message in *The Plague* is that people must not rush things. Death is always lurking in the background. It is our questions and not our answers that will matter in the end. A man who seeks to find out what the future holds for him might forget that he must first live in the present. In this way, we must figure out what life means, not what we want from life. Instead of being possessed by the world and lured by our material senses the moment we overcome this pandemic, man must learn the meaning of every struggle in order to truly live. Camus’s *The Plague* reminds us of something: “There are more things to admire in men than to despise.”

One might come to wonder why I have not described what a post-pandemic world is all about. There is a special reason for this. It is wrong to assume things. “The one who knows what is good, not the one who knows many things, is the truly wise,” as Aeschylus points out rightly. In this case, it matters that we open ourselves to the world and listen to what ordinary people can teach us. The only commitment that we have, even in the midst of a great crisis such as Covid-19, is to the truth. Being true to oneself and others is the only kind of life that is worth pursuing.

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Volunteering' as Praxis During COVID-19: Experiences from Bangladeshi Migrant Workers in Malaysia and Indigenous Communities of Bangladesh

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Abstract

During the COVID-19 pandemic, the first author has been engaged in volunteering among the Bangladeshi workers in Malaysia, concomitantly, the fourth author is among the marginal indigenous people in Bangladesh. We found both marginal communities are food insecure. In doing this volunteering, a few questions are raised. What is the state's responsibility for the marginal people's food supply? Why does the state ignore their presence? Is there any philosophical reason? How can these people survive? We all decided to answer these questions through the Indigenous research paradigm (IRP). 'Biopolitics', 'Historical ontology,' 'Disaster Capitalism,' 'Metaphysics of presence' helped in analyzing, however, we answered—by empirical findings--'volunteering' is a practical method for lifesaving—in parallel—a theoretical tool under the 'Indigenous metaphysics' of Vine Deloria. We concluded with a recommendation that an ontological turn is essential for policy approaches in the New Normal era.

Keywords Malaysia, Bangladesh, marginal people, COVID-19, Biopolitics, Disaster capitalism, the New Normal.

"Brother, we wake up in mid-day so that we save the morning food for launch-(A respondent, Bangladeshi worker).

Are we human that 'sorkar' (Government) will look after us (An Indigenous respondent)"

Introduction

Long before, Michael Moore's revolutionary documentary 'Sicko,' pointed out the inequality of health systems, this coronavirus invaded and ousted not only its structural vulnerabilities but the whole of life, both private and public. COVID-19 showed its deadly face, now we have been seeing the faces of people, the governments on the food supply when almost every

country is nearing the New Normal. Darryl Macer considered bioethics and its impacts on society (Macer, 1994, 1998). Clover asserts it as new in the world, the New Normal. Despite the livelihood, the major focus is life and/or the food--the question of survival (Long et al., 2020; Adams, 2020; Kazi and Mursheda, 2020; Gupta and Pal, 2020; Ali, 2020). Outrages resulting from the COVID-19 pandemic are now putting millions of people at risk of food safety. Perhaps, joblessness is the reason or lack of savings. It is however the surfaced scenario. We rather argue the governmental policies are pledged for global food security (Vos, Martin, and Laborde, 2020;³⁰ World Bank, 2020). The numbers are higher and increasing in developing nations like Africa and Asian nations like Bangladesh. From our practical experiences, countries like Malaysia as an emerging developing country where thousands of foreign workers live, and about to lose their jobs—are suffering and will be increasing in the coming days (Caduff, 2020; Naushad and Naushad, 2020). In Malaysia, the rate would be 13% of unemployment.³¹

Keeping aside the deadly numbers, the most attendant issues are for those who are living in the world's marginality (Congressional Research Service, 2020; Nuno, 2020). In this article we are focusing on two marginal communities, one is the Bangladeshi migrant workers in Malaysia, and the other is the Chittagong Hill Tracts Indigenous communities of Bangladesh as a referral point for further studies. We agree, yet that, "[no] one can accurately predict the final financial damage from COVID-19 (Naushad and Naushad, 2020: 25)" but we are in a New Normal stage, a new order, where the old is unfit. The old normal is dominated by neoliberal ethics, justice, social system. Amongst all the dire needs in the new Normal, food is premiering as it is directly associated with life (Zurayk, 2020; WHO, 2020; Glauber et al., 2020; Van Lancker and Parolin, 2020; Galanakis, 2020). In developing countries, scholars are conscientious and critically reviewing the appalling issue of food security and, in turn, recommending the way forward for the New Normal. (For example, in Sri Lanka, Ranasinghe, 2020; in China, Wang and Sue, 2020; in Amazonian nations, Diele-Viegas and Pereira, 2020; in Kenya, Odhiambo, Weke and Ngare, 2020).

Narrowing down the issue, few scholars (Wenham, Smith and Morgan, 2020; Peterman, et al, 2020) are focusing on the gender issue as a marginal community. Food distribution and inequality is an existing complex problem as we observed in both places characterized by significant and persistent differences in the social and economic indicators of the both state's recent policies and implication. These may be differences in access to policy streams, participation in the labor market, salary level, access to entrepreneurship, participation in the whole economy. However, both academia and policy are ignoring the Bangladeshi migrant workers in Malaysia and the Hill people of Bangladesh. Not only for an academic point of view but, we consider both communities from a humanitarian ground, perhaps, no one can ignore the food insecurity at this time. By nature, we identify both communities are as marginal and

³⁰ Appendix-1 is important to understand the nation-wise picture.

³¹ <https://www.thestar.com.my/business/business-news/2020/04/22/unemployment-could-hit-13-says-mef>

identical. It is documented by Bangladesh Manpower Employment and Training-BMET, 8,80,584 Bangladeshi migrant labor reached in Malaysian since 1976-2017, and 2017-2019, 1,76, 000 workers came.³² Even recent studies (Reza and Subramaniam, 2019; Hossain, 2020; Ruji, 2019; Karim, et al, 2017) came in fore about Bangladeshi migrant workers, however, these are more on descriptive and conducted before the pandemic.

Most recent works from Malaysia (Gopalan et al., 2020; Shanmugam, Juhari, Nair, Ken and Guan, 2020) have been mentioned the crisis of migrant workers. For instance, “migrant workers affected by the economic crisis” (Shanmugam et al., 2020, 20). Mia and Griffiths (2020) have aritten an editorial letter on Bangladeshi migrant workers, however, the Bangladeshi migrant workers have not been seen empirically yet by academia or policy planners.

In this article, we are to scrutinize the state’s perception (ontology) about the reality of marginal

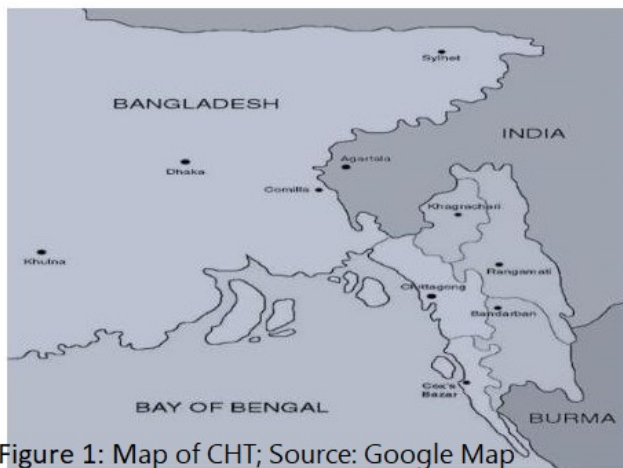


Figure 1: Map of CHT; Source: Google Map

people. Nor the Malaysian government or the Bangladeshi High Commission of Malaysia, or the Government of Bangladesh has announced package, funds for these poor people in Malaysia. The only exception is, the Bangladesh High Commission donated a small amount of food³³ as a one-off. They have not provided any funds to pay room rent, buy food, and other everyday essentials for survival. It is one aspect of our argument. Our other focus is as stated, the Indigenous people of Bangladesh those who are living in the Chittagong Hill Tracts (CHT). The Government of Bangladesh-GoB, has announced a 2020 stimulus package, again, the Indigenous marginal people are ignored. This pandemic detrimentally affected the migrant workers, similarly, the Indigenous people too. In a sense, this pandemic made a line of demarcation between the state and marginals.

We have been noticing on the personal WhatsApp group, Messenger groups, in both countries, people started sufferings from lack of food. This strikes us,

perhaps, they are migrant workers, they have been contributing to the economy for a long time, a state thus cannot escape the responsibilities of her people. It is one part. Another part is what the Bangladeshi government did her marginal people. The Bangladeshi migrant workers are not an emblematical entity here, they are instead living as ‘being’ entity, but the reality is that they are not ‘owning’ or ‘belonging’. A separate discussion could arrange as Zarine Rocha placed in academia last year in the context of Singapore and New Zealand. Not a thought-provoking idea only, but quite a policy directive if a similar study can be conducted in Malaysia, for parsing the Bangladeshi migrant workers’ situation, identity, and futurity in the New Normal era in Malaysia. We do feel that an “institutionalized understanding of ethnicity as about belonging, rather than ‘being’ (Rocha, 2019)” is vital for incorporating these people.

About ten years before, Raymond Lee concerned about the marginality. “It is not my purpose here to construct such a model but only to provide the inklings of this model by alerting the reader to the yet unmapped relations between the nation-state and globalized liquidity and marginality. It is hoped that future research on cosmopolitanism will indeed take note of these relations” (Lee, 2010: 184). Yet, marginality is such a concern in this pandemic, we cannot condone.

Besides, this marginality may be seen from the classical philosophical aspect. Published policy measures from Malaysia and Bangladesh—from a Kantian philosophy, prove that marginal people are as ‘periphery’—at least two recent articles appeared (Bayod 2020; Maboloc 2020)³⁴—we rather escaped this debate as discussed already. Instead, in a sense in this paper is demonstrating the problem from the Indigenous research paradigm-IRP that aims to Decolonize the academia. The notion of biopolitics (Michel Foucault, 1990, 2003; Giorgio Agamben, 2005) and disaster capitalism (Klein, 2007), Jacque Derrida’s metaphysics of presence are helping us to analyze the state policies and the marginal people’s situation. The COVID-19 and its deadly scenario have been seen by anthropology from disaster capitalism (Adams, 2020) and an ethical viewpoint (Macer, 2020). Both biopower of state and disaster capitalism fomented to reframe their citizen under democratic demeanor. In Bangladesh the state policies are affable on the surface, however, marginalized the vulnerable communities. Fact, Indigenous people are marginal in the world already³⁵ either in the mainstream news or instate policies everywhere in the world (Berger et al., 2020; Muhareb and Rita 2020; Smith and Judd, 2020).

In this pandemic, the indigenous aged population was pointed too, but rarely (Muhareb and Giacaman, 2020). However, a direct claim for Indigenous people is yet very sidelined and low (Ferrante and Fearnside, 2020). Few articles appeared from the Bangladesh context, for instance, Akhmam and Islam (2020), Mohiuddin (2020a;

³²<http://www.bmet.gov.bd/site/page/e3e5ce2a-7580-45e3-ab8f-ef7c55b8cc25/>

³³ A packet of 5-kilogram Rice, 7 potatoes, 1 liter cooking oil, a pack of salt per person.

³⁴This is another aspect, and articulately analyzed by Bayod (2020) and Maboloc (2020), we are therefore not repeating this discussion.

³⁵ First Indigenous patient is reported in Brazil on 2nd April, 2020, see, Borges and Branford, (2020) “First COVID-19 case among indigenous people confirmed in Brazilian Amazon, The Mogabay, <https://news.mongabay.com/2020/04/first-covid-19-case-among-indigenous-people-confirmed-in-brazilian-amazon/>

2020b), Mohammad and Hassan (2020) addressed the general impact of COVID-19. Chowdhury (2020), Mamaun and Griffith (2020) focused psychological aspect. However, neither a single article addressed the problems of Indigenous people, not a single one is an empirical research-based study that can direct some way forward. Indigenous people of Bangladesh, who are one-tenth of the population (Barkat, 2016). The prevalence and scale of inequality are common in Bangladesh and Malaysia, and hence, compared to both findings. Therefore, it is not only a timely call but also a practical contribution to crisis management for the present food insecurity—that leads only a way forward but gives a practicable and subjective consciousness where people's life and livelihood are in stake of extreme risk.

In Malaysia, when this country is planning a soft-landing after the pick, Bangladesh, in reverse, the pick is yet to come (The Telegraph, June 10, 2002). In Bangladesh, since most indigenous communities are not oriented to mechanized farming or face a labor shortage when it is their slash and burn (Jhum) cultivation season. This article concludes with a solid way forward from academia for the academicians. 'Volunteering' is a method (Wilson and Son, 2018) that includes 'social support (Song, Son and Lin, 2011) as means reciprocity of the researcher's standpoint and policy that will include all the citizens of the boundary. We are not as radical as the philosopher Slavoj Zizek or Andrew Liu, who knows that the right preventive measure against coronavirus is the opportunity to willingly revoke from capitalism. We prefer to take this journey forward with an ontological turn, where ethics is premier (Macer, 1999). We do rethink that, academicians must work for the people in air-cooled rooms with sun-burned streets. At the same time, state initiatives will represent the voice of the population. In conclusion, this article recommends all of this.

The context

We have conducted this research in two geographical locations, one in Bangladesh's northeastern part, known as the Chittagong Hill Tracts (hereafter CHT), which entails of 10% of total land and 5% of total population (Chowdhury, 2008: 61) where 13 'Indigenous'[the GoB does not recognize them as Indigenous rather small sects] communities exist for centuries. First, they came under the British colonial biopower in 1900, then by Pakistan, then by Banglaee in independent Bangladesh. The government did address them as 'small sects' (*Kshudro nri-goshthi*) by Act (Government of Bangladesh, 2011). Here we agreed with Chowdhury's³⁶ information, however, not with the argument. Many political, ideological calculations are behind to treat them as small sects, in effect, their self-determination as Indigenous. We deliberately escaped this argument of Identity politics (Rocha, 2019). First, this is the time of survival, then, is the objective of this study does not permit us to

place the philosophical debate. Simply, if the state recognizes them as Indigenous, many obligations would sit in the state's shoulder. Also, the geographical location is important as we see in map 1. We interviewed high ranked military officials, and they suspect that the recognition may lead to other causes. Recognizing these indigenous peoples can lead to secession, which is the lesion of the sovereignty land. Because geographically, the CHT relates to Myanmar and India as shown in Map 1.

The second location is in Malaysia, however, herein as stated above, we focused on the Bangladeshi migrant workers. Documented, Bangladeshi workers have been in Malaysia since 1979, and till 2017 about 9,00,000 people came, nevertheless, from 2017 to February 2020, 1, 76,000 enlisted workers are here. Due to Movement Control Order (MCO) by the Malaysian government, placed since 18th March 2020. Thousands of workers have lost jobs, even now, Conditional MCO is in place, however, the migrant workers are yet jobless because of fewer customers in the restaurants, hotels are shut, construction sites are under the close monitor of Standard Operational Practice (SOP). Our observational fieldwork took places in three areas:

Filed visit (FV) Cluster -1: Kota Damansara is a town located in the district of Petaling Jaya, Selangor, Malaysia. The total landscape stretched over 4,000 acres of land (16 Square k.m).

FV Cluster-2: Nilai is a town between district Sepang and district Seremban, Negeri Sembilan, Malaysia. It is a fast-rising town due to its proximity and connection to Kuala Lumpur, Putrajaya, and Kuala Lumpur International Airport.

FV Cluster -3: Ampang or Ampang Hill, in the eastern part of Kuala Lumpur (KL) in the Titivangsa constituency, is a district and town area.

Bangladeshi migrant workers are an existing entity in Malaysia as per the 8th highest among foreign workers (Andaya and Andaya, 2016:3). So, given this context, and background, perhaps we should inform the methodology adopted in this study.

Methodology: Indigenous Research Paradigm (IRP)

A theory is, for us and should be, a means liberatory practice (hooks, 1991), a seed in our backyard (Harvey, 2000: 94) for a 'rethink[ing] social work' (Popple and Stepney, 2008, pp. 32-51) and a tool of being and becoming 'practical-critical' (Marx, Thesis-i) so that this methodology can be "politically useful" (Meade and Shaw, ed. 2016:1) for the marginal people. Relying on this theme, this study aligns with the Decolonizing methodology (Smith, 2013), and Indigenous metaphysics (Deloria, 1969) that maintain a relational ontology and epistemology where everything [i]s related" (Deloria, 2001[1986]: 2) with living and non-living entities (Wilson, 2008). Further, this totality of the relationship generates the Indigenous standpoint

³⁶Khairul Chowdhury was a teacher of first and fourth authors. In this paper, he is lenient, positioned himself as complacent to governmental policies, as he says "[t]hroughout this paper I use the term ethnonationalism (2008:56)." Also, he adopted the term 'ethnic' in this paper 18 times. 'Ethnic' 'Ethno' are such western terminology that hide Indigenous identity and connotes a neoliberal legacy. And it was tool

for making a nation-state in 1960s, under 'imagined communities.' We mentioned here: as of our knowledge, professor Khairul (was) an active Marxist when he was studying university. Our question, being a Marxist, what did professor Khairul played role as intellectual, if he believes in the notion of 'critical-practical' (*Theses of Feuerbach*, Thesis-i), the ultimate spirit of a Marxist intellectual.

(Nakata, 2007), their own cultural code (Mignolo, 2011). Considering axiology, we refer to Linda Smith. *What the research do we want done?, Whom is it for? What difference will it make? Who will carry it out? How do we want the research does? How will we know it is worthwhile? Who will own the research? Who will benefit?* (Smith, 2000: 239; Denzin and

Lincoln in Denzin et al. 2008: 9). The whole research design adopted methods and techniques in this article, we demonstrated in Figure 2. Scholars are around the world adopted the Indigenous paradigm in community development studies (Smith, 2013; Rowe et al., 2015; Nair et al. 2018; Wilson, 2008; Grey and Yadav, 2020), are our inspiration.

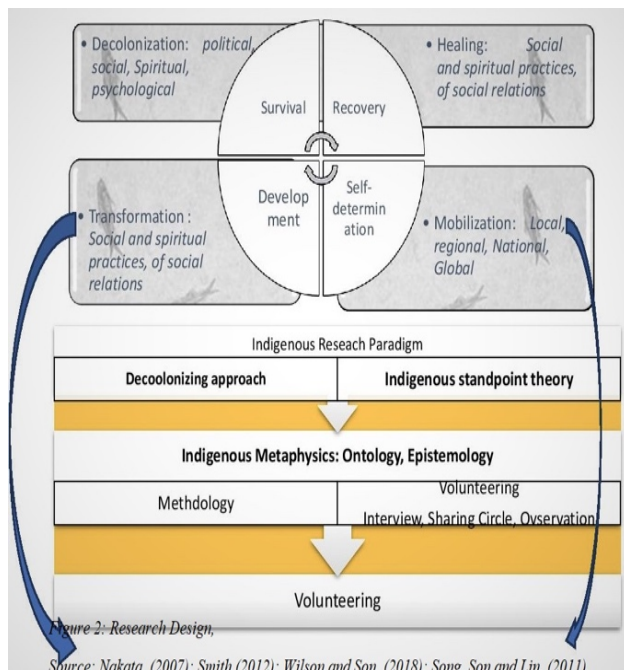


Figure 2: Research-Design.

Source: Nakata. (2007); Smith (2012); Wilson and Son. (2018); Song, Son and Lin. (2011).

Figure 3 demonstrates that decoloniality and IRP have four aspects: *Survival* for the marginal community, *Recovery* of the trauma, *Self-determination* as Indigenous people (for Bangladesh), *Development* as transformation. This methodological stand is congruent with social work's sentiment of 'volunteering' with Marginal people. Besides, we incorporated a few concepts such as, 'Historical ontology', 'Biopower' (Dreyfus and Rabinow, 2014), 'Metaphysics of presence' (Derrida, 1979), Disaster capitalism (Klein, 2007) for comprehension and analysis.

This "modern" form of authority reveals us the way it is evil from Foucault's notion of bio-politics (Foucault, 1990). It may not have been intended to commend it, of course. In undertaking this project of bio-politics, Foucault would like to make us cognizant of the historic transition from a target level to what he calls, "threshold of biological modernity (Foucault, 1990:143)". Aside from Foucault, Italian political philosopher, Giorgio Agamben (2005) also engaged closely with biopolitics. It is a conceptual and functional system under which *bio* as a central theme from all actions of beings, whether it be politics, culture, the media, the economy, science and/or technology. The word "bios" applies to all life types on our earth, with its genetic and geographical differences.

So if we pose a question, where are we living in nowadays? Without hesitation: 'in the state of exception' and Malaysia and Bangladesh, even many countries are nearing to the New Normal. Since its pandemic, our ecosystems, and now every living creature, passed this stage, where the people's lives as an organism have become critical and vulnerable to state's decision-making, a new "concern" which government must tackle – so it's not just in "exceptional" circumstances (e.g., an "epidemic") (see, Foucault's *Society Must Be Defended* (2003:244). The second one is from Naomi Klein's disaster capitalism (Klein, 2007:3), "[w]e shall squeeze you empty [during the disaster], and then we shall fill you with ours [policies]," that would be legalized later as "shock doctrine." Fredman reflects Naomi's stance, "just a crisis—actual or putative shifts. The situation is real. When this crisis happens, the actions taken depend on the ideas behind it.



Figure 3: Panta Vat, routinely consumed; Source: Field visit

Along with this IRP, in effect, theoretical position, we feel, a solution is pertinent: volunteering is a means to be reciprocal with the people to whom we are working with. As we stated this methodological position gives us a pathway, where academia, community, and the policies may string together, and is reciprocity.

Our stand is more likely aligned with Darryl Macer. We rather quote, "[p]eace does not just involve human beings, but in our relationships to all of nature. One of the keys to Asian ways of thinking of the world is embedded in relationships between members of the living world (Macer, 1999: 118)." This reciprocal message, as Darryl Macer, asserts and this article links that may broaden three demeanors, connectivity with the people, collaboration for the people with policy implications, and contribution to the welfare of the people: with nature and ecology. In this pandemic situation, as we stated, trying to overcome by volunteering (Wilson and Son, 2018) and Social support (Song, Son and Lin, 2011), however, volunteering may help in saving lives, but for livelihood, the policy is important. For collecting data, we used the interview (including telephonic), observational fieldwork, Focus group discussion-FGD. We took a few sharing circles for Indigenous settings as it is widely

practiced in Indigenous research methodology (Chilisa, 2012, Smith, 2012).

Findings and Analysis

The state initiatives of Malaysia, we noticed that the Government has taken few practical steps. If we pick the key points up from these packages, the relevant information is as below:

- On March 27, 2020, the Malaysian government issued its second stimulus package to combat the economic impact of the COVID-19 pandemic.

- "One-off RM800 financial assistance for unmarried individuals earning RM2,000 per month and below" has been announced by Prihatin Rakyat Economic Stimulus Package (Prihatin) (Ministry of Finance, 2020:4).

- Selangor, a state of Malaysia, as an instance, also announced stimulus package, let us take the key point of this package, that includes "incentives for licensed traders and hawkers (New Straits Times, 20 March, 2020).

Keeping this information given above, let us brief the respondents' profiles may help to grasp the theme of the article.

	Age	Education	Income (Till March 2020)	Profession
Malaysian Respondents	27	Higher secondary 70%	2000 (70%)	Waiter (30%)
		Secondary 20%	1500-1999 (20%)	Construction worker (60%)
		Below secondary 10%	<1500 (10%)	Cleaner (10%)
Regular Meal		3 times with less meal: 10%	2 times with less 70%	1 time full meal. 20%

Table -1: Respondents' socio-economic profile (Malaysian Workers). Source: Fieldvisit

In Malaysia, we interviewed 90 males, 3 families. The respondents are of average aged 27. Their monthly income was average RM 2000 (70%) before COVID-10. However, the respondents from Malaysia are observed, interviewed, and discussed in a 'sharing circle' (Chilisa, 2011) instead of Focus Group Discussion. All the adults interviewed here, reported experiences of food insecurity since Malaysia went into official lockdown (18th March 2020). It was supposed to be two weeks, however, due to the spread of the virus, the authority must extend till 9th June 2020 in different phases. The experience we faced is severe. For instance, one group of people from the Kota Damansara area said like this.

A Kota Damansara resident said,
Brother, we wake up in mid-day so that we save the morning food for launch-(A respondent, Bangladeshi worker, it was before that fasting month -Ramadan). Can you brother provide us some chicken, for a long time, we have not cooked any meat.

Ramadan is coming brother; how will we survive?

Nilay respondents said that,
Last 3 weeks potato paste(আলুভর্তা) and red lentil with rice is the only food we have been consuming.

These statements when we compare with the findings of observations and FGD, perhaps, may point in the themes. The Bangladeshi migrant workers are

- consuming reduced meals than usual.
- by routinely bouncing food (like Morning food).
- Being starved however unable to eat
- not cooking every day, because they couldn't provide anything or even though they couldn't have the food. Everyone else addressing one or more of these questions was listed as insecure.

What we have been known from the people that they do not wake up in the morning skipping or reducing the size of their meals, experiencing hunger but not eating, and/or going a whole day without eating because they could not afford or access food. An additional 70% of adults reported feeling very worried or fairly worried about getting the food they need during the COVID-19 outbreak, having two meals a day with less amount of normal quantity. Worthwhile to mention that those meals are mainly with potato paste, red lentil, or even sometimes they keep the leftover rice from dinner in water, and at morning eat it with onion and fried red dry or green chili (পান্তাভাত see figure 3).

On the 27 May 2020, the first author received a text: 'Brother, I have not food for today, can you arrange some meat or fish, one onion and one garlic.' (see figure 4).

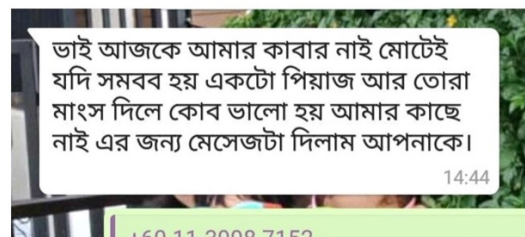


Figure 4: A text from a Bangladeshi worker; Source: Fieldwork

The first author had arranged from his own house. This is a small group of people among the vast numbers of Bangladeshi workers in Malaysia, nonetheless, it represents the greater picture. In compliance with the national food security surveillance data from Malaysia, food insecurity-risk groups are currently in threat. These include unemployed adults, family-owned adult women, income-less adults, and these are, again, for those people who are citizens here.

Families with children are in the worst situation. We did not capture the malnutritional status of the respondents, however, it is explicit that consuming potato paste, *panta vat*, red lentils, at best one can survive, but will not get proper and a balanced diet.



Figure 5: Food and responses; Source: Field visit.

In the case of Malaysia, the food crisis, again, we admit, for the locals is not an issue because of these

stimulus packages, however, these excluded, the Bangladeshi migrant workers. We gave herein a few

photos in figure 3 out of thousands form our volunteering, as we stated as a method of survival.



Figure 6: Food volunteering for Rakhain (Raw 1,2) and Tripura people (Raw 3,4);Source: The filed visit, community people.

It is not possible for a human being, at least for us, to construe the situation in a language format. Some statements, pictures, observation is indeed more than enough if one can feel it at all. And since tomorrow (June 10, 2020), Malaysia lifts MCO to the recovery phase, on the hand, starting the New Normal.

On the other hand, no known study has been reported (June 29, 2020) about the Indigenous people of Bangladesh. The government has not mentioned any separate stimulus packages for them. Until our presence in the land, it was impossible to know the dire situation, parse the biopolitical condition, and doing volunteering for saving people’s lives. Finally, we could decipher the deadly situation in text format.

Previous experiences of indigenous peoples in the CHT might assist a critical look at what is happening now in Bangladesh, where rape, ignorance, kidnaping are

everyday words for those people, and obviously by Banglaee people (Barkat, 2016). The villages of Bandarban, Rangamati we visited, are mostly Rakhain and Chakma community, have not found any infected people nor even recorded. Understandably, no death so far has been seen in the Hills. However, we saw, noticed, and been informed, the severity of food is vivid.

People from the Tripura, Chakma, and Rakhain community, living in the remote area, told us they have not received any assistance from the Government. The leaders of the Rakhain people did not believe us, and this is true for many reasons, even of the bitter experiences from the Banglaee researchers. Indigenous people know that the presence of Bengalis means the cause of their problems. We just wanted to know how they are surviving in these difficult times. We came to

know a horrible passage of life, they are passing. Indigenous people associated themselves like their traditional ways of living from the very beginning of the pandemic. And before the announcement of the Bangladesh government, the local people protected themselves by blocking the entrance point of the villages. A similar practice we know among the Orang Asli of Malaysia and Chile too.

Our field visits and observation seem important. The absence of COVID-19 in CHT may manifest itself in several contexts, as of our observation and even the local people say so. One is the traditional thinking, by the disintegration of mountains/connections, such as the Mahajanpra people blocked their entrance by the trees. We saw other villages also did the same practice. The second one may have been evolved and the simplicity of way of living to evade both the outbreaks and the prey by the Buddhist salvation. Third, the Indigenous sacred medicinal practices that are solely owned and practiced by their healers. This medical practice, in general, is an ongoing project [Bioprospecting in Bangladesh] might explore.

Importantly, the GoB (May 20, 2020) declared another special package for the various sector of the country. Our indigenous leaders are quite aware that they are ignored, excluded, and they said, 'we know the government will not look after us, we are our people, we have been standing by our community whatever we have, wherever we can, however, we have to.

An Indigenous professor said,

This Corona is giving some hard time particularly for the poor; however, we know how to survive. We born into struggling with man-made disasters, so we know how we do alive.

The professor added very sagaciously,

In Africa, the commonness is that strong, they believe in 'ubuntu' that is, he translated, I am because we are. Among our people, we don't have an 'I' instead 'I am' is merged with 'we.'

We observed, people have no job, no work, yet are relaxed, they know they live in a nexus, where humanity comes first then everything else. In the Indigenous villages, people are treating people as human beings, neither poor nor age or gender.

For the second question, the respondents informed the government stimulated package (BDT 2500=USD 31 as cash, and one-off) has been available to the people who are residing nearby the town and suburbs area, however, the numbers are too limited to but mention to worth. In our observation, we have been experienced that most of the people are living in a remote area. For example, one respondent said,

'We are not urban people, we are rural, typically we live in remote, the political representatives had always ignored us, and this time they are acting as they did before.'

Another respondent, from the field, stated

'The representatives are going to those people where media can cover the print and electronic media.'

Thus, food security is at risk. Life and livelihood, both are at risk among the Indigenous people.

Finally, all are, from the field and telephonic respondents agreed to the asking that a special stimulated government package is an urgent need. We

saw in the field visit, this is the time (May-June) of harvesting the (Jhum) as of substantive economy, so, lack of savings is severe. Most of them are live hand to mouth, and due to this lockdown, and transport off, they are passing the idle time at home. The people, therefore, claimed extra and special government aid package. The government package is neither reflecting the Indigenous people's demand, nor they are included in the package.

Geographically, the whole area is hilly, about 2,000 feet (600 m) from the sea level. Not that place is remote, the housing pattern, distances are traditionally made with keeping a safe place. These Indigenous ways of thinking, living, acting and being saved them to be infected indeed. We observed that local Indigenous people arranged for themselves in remote places—understandably-- collected and distributed voluntarily.

Despite field visits, we tried to justify our perceptions by some telephonic interview (12 people from different Indigenous communities, most of them are highly educated, working as Government officials). The interview session entails three questions: 1. what the impact of this pandemic on your community? 2. did you get the government stimulated package/Did you hear someone received this package in your community? and 3. do you think, is there any special attention needed for any extra and unique stimulus package in your community/area?

Almost all respondents stated that Corona was affectless in the hilly area over the period. They think maybe, the population density is lower than plain land, so they are, traditionally, following more distance in daily life than WHO declaration to maintaining social distancing. But, the governmental decision over the country they are locked, due to lack of public transport, markets (local bazaar) are shut, that has an impact in accessing health system/ physicians, food supply is less or almost zero in comparison to the normal period.

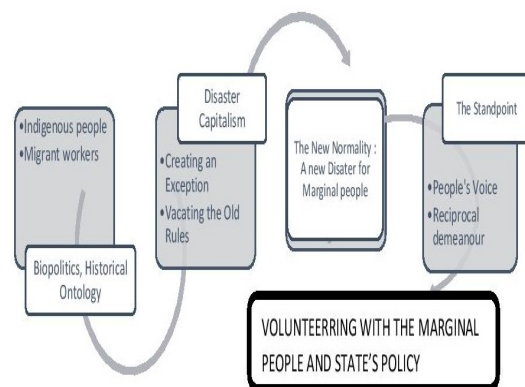


Figure 7: Analysis of findings; Source: Authors' compilation

During field visits, we saw the local community have been engaging with volunteering activities, simply, saving their people. The volunteers are from Indigenous people, **Bangladesh Tripura Kalyan Sangsad-BTKS** is one of these organizations. BTKS are giving food, collecting from all the well-wishers through Facebook

and Whatsapp group. Some pictures can be seen in Figure 3. Bangladesh Tripura Kalyan Sangsad and Vidyananda Foundation have distributed food and health care items to 12,000 unemployed families in remote villages of Khagrachhari due to this locked-down. Similarly, Rakhain organizations are providing food for their people. Taken this information, observational remarks we delve to discuss, analyze in the following section.

Analysis: Volunteering as a life-saving method

If we see, in both contexts, the policy of Bangladesh and Malaysia did not include the marginal people's life. It is, we are not taking for granted. This is an absolute ontological matter, at a time, a methodological gap—deeply rooted in the historical construction of the new liberal ideology. The state policies, per se, 'metaphysics of presence' Derrida (1979) for controlling the marginal people as biopolitics (Dreyfus and Rabinow, 2014), are reflecting the colonial legacy, and this is the base of historical ontology (Foucault, 1990). The old normal, in all means, dominated not only the social system with a profiteering pathway but the academia too. In academia, some seminal works are our inspiration here for picking the decolonial stand. Particularly, the botanical knowledge, and its relation to imperialism, science has been at stake since 1494 (Baber, 2016, Crosby, 1972, Shiva, 2016). Thus, we agreed, no research is value-free (Baber, 2018) and "to be 'value-laden', all policies and programs in environmental and energy research need to be justifiable from an ethical viewpoint (Macer, 2009: 4-5, emphasis ours)." Even our analysis in this study is value-laden. The New Normal policy implications should aware of being "most imposing inheritance is the state apparatus (Bourchier and Hadiz, 2014: 21).³⁷" We stated before, both these state's policies caused the people's starving. Western-dominated theories, research, paradigms do not reflect marginal people's everyday life. Vine Deloria, Linda Smith, Martin Nakata are, since long, advocating, acting, and contributing for and Indigenous metaphysics, marginal standpoint, that will be by and for the marginal people. So, our theoretical stand is reflecting people's transformation (Harvey), liberty (bell hooks). We feel that the academicians do not act with the spirit of practical-critical consciousness (Marx), probably it is time to refrain ourselves. In this study, we have been working as a volunteer for the people. Volunteering is a conduit between citizens and the state mediated by academics.

Seeing through Disaster capitalism, the migrant workers, particularly those were working in restaurants, and hotels—are not allowed to re-join. This gives us many outcomes:

1. In the scenario of Malaysia and Bangladesh, Agamben's State of Exception' turns into normality in the New Normal era.

2. By biopolitics marginal people have been controlled, managed.
3. By Disaster Capitalism, concurrently, the state vacates the old policies, and during the New Normal, new policies introduce that ultimately serve the neoliberals.
4. During this exceptional stage, the state has no measure for the Marginal people, only 'volunteering' survived them.

For the New Normal

5. So, we need the Standpoint, which gives people's voice to the policy planners.
6. We need a reciprocal manner where nothing is imposed instead all stakeholders will be driven by an Ihsanic philosophy (Good deeds for the good deed, good actions for good action)
7. Agamben and Foucault were aware that this special feature would become permanent. It's not about good or bad, but it is always risky, to fully commit to the concept of biopolitics if we instinctively endorse it without ever contemplating it.
8. The state of exception is going to state of normal in the New Normal era. Despite the absence of enough evidence, either from Malaysia or Bangladesh, to make a final policy direction, yet some assumptions can make. This study perturbs with re-examining the future of studies. Based on present trajectories, yet we see a few theoretical observations.

The change to New Normal would be worthwhile if its values and morals were to become context-specific or what Darryl Macer has been struggling to establish, culture-specific in all policies (for migrant workers and indigenous peoples in this study) and to stand to gain its vulnerable groups. Timeframes range the period after this pandemic to the New Normal era and thus cover interpretations that anticipate possible solutions. While this old liberal chronicle aligns with the New Normal, as we have experienced with these two communities. We hope, and we hope again, that more social research will appear soon. Our endeavors have been marked by both the continuity of the old normality and the discontinuity of the marginal life of the people. During this drastic situation, volunteering (Wilson and Son, 2018), Song, Son, and Lin, 2011 Social support (Song et al., 2011) has been a practical instrument for lifesaving. However, volunteering itself has a very limited scope as of our experience has no scope to prove livelihood for the marginal people. We rather see that policy is pertinent to make the people sustained in the coming New Normal days But a reality, we need to understand, this virus has started to attack only three months, we do not know how far it will go. Malaysia is planning for a soft-landing as the Malaysian prime minister has indicated so on the Eid greetings (24. 05. 2020, *The Malaysiakini*, 2020). And pressing for a plan to exit the MCO through the Community leaders. Where we feel a common dialogue is crucial (Macer, 2009). Our concern is that if the locals take the migrant workers' place, again it will be another

³⁷ Bourchier David and Vedi Hadiz's edited volume is prepared for the Indonesian political setting, however, seems to us important is

Malaysia and Bangladesh too, as both these countries are in the practice of western democracy, and were British colony.

disaster. Overhead costing on everyday products will be increased, and migrant workers will remain jobless. That is, in other words, what Agamben was concerned that get a chance to send all the migrant workers. Undoubtedly a good initiative. But our diplomats will think about how good the Bangladeshi workers are. Probably, Agamben was concerned in his State of Exception, the exceptionality will be normality. So as, here, again, the Malaysian biopolitics is to take measure for controlling the Bangladeshi workers. Exceptionality will become normality. The Italian philosopher Giorgio Agamben used to say. How? Through state law, through the application of laws by various agencies, it is called biopolitics, Michel Foucault's much-discussed theory. Biopolitics is about controlling, managing, and governing the citizens of a country. I think this time both countries' diplomatic work will increase a lot if the stand is not taken now. This is the procedure that after the medical crisis, a social crisis will be seen (Timbuong, 2020, see also Caxaj, et al, 2020).

Ways to volunteering (Wilson and Son, 2018) and social support (Song et al., 2011) are key in social science, however, the latter is different than other methods in the network (Song et al., 2011:11). This is such a method that well aligns with the Indigenous research paradigm where people come first. A limitation in the scope of this study should mention that we could go for all 47 Indigenous communities (Barkat, 2016) however, we focused on the Chittagong Hill Tracts-CHT, where 13 communities exist (Chowdhury, K, 2018) for our reciprocal intervention. Concomitantly, for Bangladeshi migrant workers, we could take more clusters, however, instead of a plethora of data, we feel, in this article we have had enough concerns that further research may extent. This article first discussed how 'development activities'—during this pandemic, itself as a *colonial, modern philosophical and western* construct. We then looked at how Bangladeshi social science professionals are yet condoning to see these Indigenous people.

If we recall the Indigenous professor's statement that in our society, there has no 'I'. This is, to us, very endogenous, sagacious and insightful -practically and philosophically. Literature proves that it is universal. Bangladeshi Indigenous standpoint is justifying our prerogative for decolonizing social science—the ultimate goal of an IRP. As a whole, in this argument, Indigenous people, and, to an extent, the Bangladeshi migrant workers belong to 'Weing'. We are 'Weing' (O'Donovan, 2015:751) with and for Indigenous people as a decolonial exercise of collective reflective solidarity under the community development and actions of a social movement for an ontological foundation of collective action (Shaw and Crowther in McCrea, Meade and Shaw, 2017:400). Gustavo Esteva's proposal of using the word 'we' as a verb--is a magnificent philosophical analogy of commonness, that Darryl Macer also says about the Asian culture and its sentiments of wholeness, relatedness—closely attached with the African term 'Ubuntu' that is translated as "I am because we are," a tool in decolonizing methodology (see Chilisa, 2019; Nelson Mandela in Gade, 2011). Answering these questions, we followed decolonization and Indigenous paradigm as a methodological paradigm as we aligned and followed for

and by the marginal people. This study is thus a methodological contribution. Australian aboriginal scholar Lester Rigney was saying that these feelings of 'being' with the marginal people are nothing but a state of consciousness—we here are adding-- closely attached to volunteering—that academicians can do as a means of reciprocity and honour to the community, whatever they want, whenever they can and however they do.

We know that we too are paying the price for neoliberal economic guidance. Voices of the poor from Malaysia and the Indigenous people, are clear: "we risk dying from hunger before we die from COVID-19." Poor diets are an aggravating factor for the impact of COVID19. More, state and workers relationship is crucial for any reason. Studies (Lee, 2017: 152) has conducted with restaurant people, found a similar result as of 2014, 2.8% of the total population are Bangladeshi (Guan, 2014:146). In a recent study, scholars (Rigg, Salamanca, and Thompson, 2016) assumed that smallholders will be disappeared from history because of modernization, to an extent, in the Malaysian context, we addon COVID-19 as another important issue to consider in the policy.

In addition to the discussion, finally, in both contexts, if we see these pictures of food packages, if we overlook the level of Malaysia and Bangladesh, we, then assert that the volunteering is this neither a method nor a way of action of social sciences, rather a life-saving mechanism for the people. And yet, academics can do act as volunteers, that we proved in our work. Perhaps, in the new normal, volunteering should be an academic legacy for transforming the alienating nature of academia. Because [t]he non-elites are excluded from public goods in this political regime. It is only their income that is affected, which is reduced by the amount extracted by the elites (Mukand and Rodrik, 2020:773). Therefore, *be aware of participation* from the capitalist cosmopolitanism is 'centrifugally' made by and for Europe (Mignolo, 2011: 23) A narration of the Pope is important for our argument, 'development is, as Pope says, another name of peace (see Paul II, 1987), for eager reader, see Augustine (1998) and a weapon of capitalist and colonial cultural control. States used these western and neoliberal policies, where marginal people are ignored (see Harvey, 2014:161-64) to control her citizen (Dreyfus and Rabinow, 2014; Agamben, 2005), and prevent communism too (Rahnema cited in Ziai, 2017: 10)." We think Harvey's *The New Imperialism* is very insightful here. Privatization schemes are not covering or protecting the marginal people. At this point, we are not negating to rather disagreeing with Dani Rodrik, who says "economic integration is a utopia, but feasible globalization is possible (see Rodrik, 2002:24). The model of Dani Rodrik is known as the trilemma. In other terms, it is difficult to manage and combat a pandemic successfully with equitable consideration for the integrity of the government, the security of the people, and the interests and freedoms of the citizens. Rodrik states that only two of these could be done concurrently. The way forward and some feelings of the first author

The fear of today is exacerbated by several influences. Neoliberal strategies converge with nationalist ideals—a strong preference for authoritative sovereignty over the marginal proletariat that extracts fulfillment from

disaster and seeks to drive the biosphere to the point of catastrophe so that it can be restored from scratch. Deliberate liquidation in community security and health treatment has generated vulnerable mechanisms that are unable to deal with the crisis. We also shone light on two communities and the vulnerabilities of the policies.

First, there is a shortage of understanding of strategies and marginal people. Decolonization is not a utopia under contemporary social topologies and social conditions rather always possible and feasible.

Second, among other considerations, it's a way to propose a reciprocal approach. Not only is the bridging attempt to link, but it would also make the social system smoothly. As our discussion of marginal people demonstrates that 'an all-inclusive approach; *'weing'* may be feasible. We urgently need to look beyond this pandemic if we want to understand the practical seriousness of what is going on today, where, again, an open dialogue is vital, for all, for a national progress. How did we end up in that strange space of thinking, acting, and feeling that has normalized extremes? We have a vital question: is biological life an absolute value separate from politics? Just hadn't has that been more relevant to focus solely that a different policy of living is necessary: *"I (the first author) am not a good scholar, I feel like my heart is rusted with loads of sins as I can't do much about the people we are working with, and we are 'intellectual.' But, every time I bring food to the poor, I feel that someone removes the rust of my heart and brings life back in it. I feel so relieved. We have thus become quite subjective, value-laden to our people, for whom we are graced in this world and perhaps in the New Normal."*

The state has the right to practice the constitutional duties, but the state cannot push her citizens into starvation, which is humiliating. Ensuring food security for all citizens is a state responsibility. A reciprocal change to the magnificent contributions and to share their sacred foundation, the universe of creation. We researchers are not impartial, recalling the Mariategui epigraph. Our study, argument, and practice will concentrate on their thoughts on epistemology, metaphysics, and everything else, whenever and whatever we can and will.

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Help Seeking Behavior of Young Filipinos Amidst Pandemic: The Case of Cor Jesu College Students

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Abstract

Mental health crisis has been reported as the third wave of the Covid-19 pandemic. Grief at the loss of loved ones, shock at the loss of jobs, isolation of restrictions of movements, difficult family dynamics, and uncertainty and fear of the future are just few of the psychological sufferings pointed out by the World Health Organization. To ensure that people are mentally healthy, the government takes mental health services as essential part of the responses to the pandemic. Private organizations and academic institutions also take part in this movement to safeguard the mental well-being of people in the community. Despite the efforts to prevent and remediate mental health crisis, limited number of people seek professional help. While we can assume that they might have been adjusting well to the anxieties brought about by Covid-19 pandemic, we also acknowledge the fact that a number of cases of depression and suicide had been reported in the locality for the past five months. This paper aims to provide expositions of the possible variables for young Filipino College Students' underutilization of mental health services as well as their other possible sources of inner strength and resiliency during the Covid-19 pandemic. Help seeking behaviors of the Young Filipino students in Cor Jesu College will be explored using the lens of uncertainty and anticipation model of anxiety of Grupe and Nitschke, and resilience as a cultural variable among Filipinos.

Keywords: *Mental Health Services, Help-Seeking Behavior, Covid-19, Philippines.*

Introduction

Prior to the outbreak of the Covid-19 pandemic, the Philippine government enacted the Mental Health Law which aims to provide platform for the delivery of comprehensive and integrated mental health services. The implementation of the law has been adapted and integrated to the different sectors most especially the schools as the primary source of psychoeducation among the young population. Now, the Covid-19 pandemic has become a major threat to the mental health of people. The World Health Organization (2020) emphasized that the "grief at the loss of loved ones, shock at the loss of jobs, isolation of restrictions of movements, difficult family dynamics, and uncertainty and fear of the future" are just few of the psychological sufferings brought by the pandemic.

Recently, there have been reported cases of depression and suicide among Filipinos. In particular, the Premier Value Provider Inc. (PVP, as cited in Onenews.ph, June 1, 2020) released a survey on how the pandemic and community quarantine are affecting the mental health of citizens in the Philippines. According to PVP, the millennials and the Gen Z's are mostly affected where 15% experienced a critical level of stress, 29% anxiety, and 21% depression. Although the suicide incidents can be considered as isolated cases, but extremities of the above-mentioned mental health conditions may lead to it. Like the case of a high school student who hanged himself because of family's financial incapability to respond to online learning (ucanews.com, June 20, 2020), and a college student who jumped from his 14-storey condominium in Manila (The Manila Times, February 6, 2020). Perhaps, considering all these conditions mental health crisis is really the third wave of this pandemic (Minn & Hau, 2020).

On one hand, there are mental health services offered for the people. It was highlighted by the National Center for Medical Health (NCMH) that they provide a 24/7 crisis hotline. They have reported an increase in their daily call starting the lockdown, however, they have received a total of 6, 905 calls only since they launched last year (NCMH, 2020). The DOH added that there are other organizations offering mental health services such as the UP Diliman Psychosocial Services and other private institutions in the country. Unfortunately, this number is quite far from the reported prevalence of mental disorder among Filipinos which is 88 to 133 cases per 100,000 people in the country (Department of Health [DOH], 2005). Moreover, statistically the utilization of Filipinos toward mental health services is low. Even before the Covid-19 pandemic, there are evidences indicating the reluctance of Filipinos to seek mental health services. For instance, there are only at least 22% of college students in the Philippines who sought academic or non-academic help to helping professionals in school like counselors and psychotherapists, instead most of them preferred to go to their friends and family members (Bello, Pinson, & Tuliao, 2013).

These foregoing scenarios prompted the researchers to explore on the possible variables for Filipinos' underutilization of mental health services amidst the pandemic. Specifically, we would like to discover the sources of strengths of young Filipinos in this time of pandemic, explore on their reasons for not seeking mental health services, and find out the support they would like to receive from mental health practitioners. With the findings of this study, we would like to develop a mental health program that would be attractive to young Filipinos in seeking mental health services in times of crisis.

Method

In our desire to know the self-seeking behavior of Filipinos students during this time of pandemic, we interviewed many college students via telephone, email and even personal messages to their messenger accounts. Sine we have the directory of student numbers and facebook accounts, it was easy for us to contact them.

We asked them the following questions: 1). What are the sources of strength of young Filipinos in this time of pandemic? 2). What are reasons for not seeking mental health services?, and 3). What help young Filipinos' would like to receive from mental health practitioners? We transcribed their responses and subjected them to thematic analysis.

Sources of Strength in Times of Pandemic

The Covid-19 pandemic lead many people restless and helpless, yet there are others who continue to live and rely on their personal strengths as a tool to survive the pandemic. Seligman and Peterson (2004) refer to this as "character strengths", an aspect of a person that helps him or her cope with stress and life challenges, attain happiness and sustain healthy relationships with people even in times of crisis. Although, strengths may come in many different ways. In this study, the participants the following themes as a source of their strength amidst pandemic: *positive mindset, family, faith in God, and engagement to usual activities.*

Positive Mindset. The participants learned to accept the reality about the Covid-19 pandemic. They are holding the value that life must go on despite the situation. Just like the statement of one of our participants who said: *"I just adapt to the changes that is already here. My schooling is very much affected. It is hard to do online class and daily activities are limited. But life must go on, as long as you have the mindset it will be okay later."* (Informant No. 3). Instead, they saw the situation as avenue to start something new like saving money and exploring business opportunities that can help their family. This is what informant 27 revealed, *"Like me, I have more time... and also I started a small business because of the pandemic."* Similarly, informant 11 shared that the pandemic helped her to *"Took the time to earn and save money through planting vegetables, selling stuff, and reducing electric consumption at home."* Other informants noted that they take this opportunity to find for a way to help their family like looking for some part-time work. Despite this positive outlook among young Filipinos, however, had been greatly affected by the pandemic. In the Global Web Index Survey, 75% of Filipinos remain optimistic with the Covid-19 situation, while 91% are concerned with the events brought by the pandemic. This simply suggests that not all have learned to cope with the changes brought by the Covid-19 pandemic.

Family as source of strength. Close family ties play a significant role in the life of the informants. They believed that having their family as an inspiration boost their confidence that they are able to face this challenging time, and spending time with their family helped them to gain more strength to survive the present crisis. *"My source of strengths is my family and friends; they always keep reminding me to be strong"* and *"My... loved ones, I realized that spending time with them helps me to surpass all personal and social struggles that I've been experiencing due to this outbreak."* Those are the statement of informant 17 and 18 respectively. As stressed by Campos (2004), the family serves as the main provider of support in terms of the physical and psychological endeavor of an individual, with family they feel protected, loved, and socially formed. While the lack

of family support may be one of the predisposing factors to mental illness (Noronha, Silva, & Dametto, 2019).

Faith in God. The participants hold with their faith in God. Believing that everything will be fine through God's help and this pandemic is just a trial and has a solution. This was expressed by our informant who said that: *"My source of strength... is God because he always makes a way to heal everything and I know that he did not give us trials that we can't surpass with his guidance."* (Informant No. 32). Another participant added that this the way of God to test us, informant 29 stated that: *"My God, knowing He placed us in this situation, I know we can surpass this. We are just being tested by God... Keep on praying..."*. Hence, this result affirms the claim of Bonelli, Dew, Koenig, Rosmarin, and Vasegh (2012) that religious beliefs and practices helps people to cope with life stressful circumstances, give them meaning and hope to continue living, and find support as part of the community of faith. Conversely, Gupta, Avasthi, and Kumar (2011) noted that acquiring psychological maladjustment also depends on the level of a person's religiosity.

Engagement to usual activities. Participants stressed that one of their gesture of recovery is engaging to their usual activities like doing household chores, surfing the internet, watching movies, planting or gardening, and reading helped them to fight their boredom from staying at home. These activities give them leisure and keeps them busy aside from the school works they need to accomplish. This is emphasized by informant 13 who said that: *"This might sound lame but I actually forgot how messed up this situation is when I'm planting or taking care of my vegetable and other plants. And even before my companion when I have none will forever be Korean dramas and Korean pop music and artists"*.

Likewise, other house activities were shared by informant 23: *"Keeping myself busy in doing household chores, playing with my dogs, using my cellphone and spending time with my family."* Other informant also noted that they are also busy catching up with their school requirements. Although just have more free time now to do leisure and recreational activities.

This result affirms the present study of Rodriguez-Rey, Garrido-Hernansaiz, and Collado (2020), where people who are in lockdown learned to engage in leisure activities at home such as "watching films or series, reading, watching TV, making crafts or any artistic activity, playing, browsing or sharing contents in social networks, and other activities".

The findings of the study can be also examined through the lens of the Uncertainty and Anticipation Model of Anxiety by Grupe and Nitschke (2013). Their model outlined the process an individual undergoes when faced with threat or danger which is usually posited by certain and uncertain events. The model proposed five processes that are involved in an adaptive or maladaptive response to specific conditions: inflated estimates of threat cost and probability, increased threat attention and hypervigilance, deficient safety learning, behavioral and cognitive avoidance, and heightened reactivity to threat uncertainty.

The participants of this study are aware of the threat of the Covid-19 pandemic. However, after witnessing and

assessing the situation in the locality, they learned to accept the situation and take it as opportunity to survive (first process). They become watchful and vigilant to the situation (second process). They also find safety and security at home with their family, at the same time holding with their faith in God as a major tool to survive (third process). Instead of living with fear, they have decided to continue life doing their usual activities but this time in a new environment (fourth process). Information on the threat of the pandemic, and learning the health protocols to protect themselves, the participants have learned to adapt with the changes brought by the pandemic (final process). Using the UAMA process, the adaptive response of the participants can be simply reflected.

Reasons for not Seeking Mental Health Services

There are factors that hinder people from seeking mental health services. Salaheddin and Mason (2016) reported that stigmatizing beliefs, difficulty identifying or expressing concerns, a preference for self-reliance, and difficulty accessing help are just few of the reasons for underutilization of mental health services. Similarly, other barriers to help seeking behavior of young adults can include "difficulties in accessing support, concerns about confidentiality and trust, a preference for informal sources of help, and stigma" (Clement, et.al, 2014). In the context of our student, some of the reported findings are confirmed with our results such as *connectedness* to significant others, *self-reliance* in solving problems, and *stigma* about seeking mental health services.

Connectedness to significant others. The participants consider their family and friends as the first persons whom they can rely in seeking help when they are having troubles. They are more confident sharing their concerns to them as compared to helping professionals. This had been confidently expressed by informant 6 and 9 who noted that: *"In the family, you are more confident and comfortable to share"*, and *"My parents support me. My friends are there and we often reach out each other when troubled"*. It is very clear that for our study participants that they are more comfortable talking and sharing their ideas and emotions to their family members and trusted friends. Hence, they are not really seeking the services of the mental health experts in their school. Since community quarantine and lockdowns provided them the opportunity to go home and be with their families and some friends in their neighborhood, they become more confident and secure because they have the support systems near them.

However, they are not also saying that they don't need the services of the mental health experts. In fact, it has been highlighted by the participants that they perceive seeking mental health services helpful to the people in the community. However, they stressed that a friend or a family member can fulfill the role of a mental health professional (Thompson et al., 2002). The WHO (2020) reported that the lockdown may cause emotional troubles. Nevertheless, people still considered such troubles transitory and relationship related which can be solved by talking to friends, family members, or trusted community members (Hechanova et al., 2011). In fact, in

the study of Baloran (2020), he reported that 49% of students considered chatting with family and friends a helpful way to relieve their stress and obtain support during pandemic.

Self-reliance in solving problems. Another reason why a lot of Filipino students do not really seek the help of the mental health experts in school is their sense of self-reliance. They emphasized that as much as possible they would like to deal with their issues or concerns on their own. It was clearly pointed out by our study participants. In fact one participant said, *"I have concerns, but I keep in mind that it is my problem. Why ask for others about it. I don't want others to know about my problems."* They also emphasized that do not want to bother other people on concerns they knew only them can solve. Another participant of the study said, *"I don't want to bother others with my problems"*. Indeed, for these students, they have already a sense of self-reliance with regard to their problems and concerns. Their sense of self-reliance have allowed them to manage their own emotions. In the study of Thompson et al., (2002), self-reliance is also highlighted as a tool used by Filipinos to deal with their concerns. They pointed out that being able to cope with one's emotional problem and taking it as one's own responsibility is also valued by Filipinos.

Stigma about seeking mental health services. While others may have wanted the services of the mental health professionals, they are reluctant to visit their respective offices and clinics because of the stigma that is attached to those who will visit mental health professionals. They believed that seeking professional help is not widely accepted in the community and they fear of being judge by it. Specifically, one of the participants expressed, *"I am shy to share because I am a male. Usually people will judge you"*. Gender stereotyping is also reported in previous researches. While Baello and Mori (2007) suggested that among Filipinos gender differences don't matter in help-seeking behavior, it contradicts to the report of Addis & Mahalik (2003) who noted that that men are more reluctant to seek help than women. A factor that can be attributed is the Filipino trait "Hiya" (shame) which is reported by Tuliao (2014) in his study. "Hiya" is a painful emotion arising from real or imagined transgressions of social norms or authority figures, and its avoidance is paramount in social interactions (Bulatao, 1964).

Others also think that seeking mental health services is not common in our country, like what the informant shared: *"Here in our country, people are not welcoming or not used to seeking professional help form mental health practitioners"*. Hence, what Thompson et al., (2002) said could be true that if people are having emotional distress or psychological problems, divulging these issues to the public are to be avoided at all costs. He added that Filipinos reluctance to seek professional help can be associated with the fear of being labeled as 'crazy' and to avoid tarnishing the family's reputation.

The result of this study can also be examined through lens of resiliency as proposed by Reich (2006): control, coherence, and connectedness. Control relates to the "belief that one has the personal resources needed to rebuild their lives". In this study, the faith to God is the first resource of the participants which help them to

resume their lives and engage with their usual activities. With regard to their help-seeking behavior, participants self-reliance in dealing with concerns is an epitome of their resilience.

Coherence has to do with enhancing meaning, direction, and understanding so as to create order and structure in one's life. As conform by this study, the participants positive mindset despite the threat brought by the pandemic. Finally, connection is about enhancing connectivity in order to build one's social capital. Having family as a source of strength helped the participants to live their life. With regard to their help seeking behavior, young Filipinos connectedness with other significant others like friends and trusted members of the community plays the same role as mental health practitioners.

Reich (2006) suggested three principles of psychological resilience: control, coherence, and connectedness. Control relates to the belief that one has the personal resources needed to rebuild their lives. Coherence has to do with enhancing meaning, direction, and understanding so as to create order and structure in one's life. Connection is about enhancing connectivity in order to build one's social capital (Reich, 2006).

Support from Mental Health Practitioners

The Covid-19 pandemic forced people to isolate themselves. This situation worsened the need for support system of many people especially those experiencing mental health problems (Kawachi & Berkman, 2001). Hence, in order to respond to the need of the community mental health services has been offered to the community (WHO, 2020). In this study, two themes are identified based from the responses of the informants during the interview: *psychoeducation*, and *psychosocial support*.

Psychoeducation. The informants noted that fear and anxiety have become one of their concerns during the outbreak of the Covid-19. For them it is important that people will be educated not to create greater fear and students like them will be able to adjust to the situation. Some of their statements include (informants no. 1 and 2): *"Educate people about their psychological experiences during pandemic. I have a relative out of the country, she has a different perspective about the pandemic unlike us"*, and *"Proper education to people to avoid causing anxiety. Like the services offered by the government."* Indeed, while they are not so inclined to visit guidance and counseling offices and avail of their services, these students wanted that the guidance and counseling offices of schools provide psychoeducation to the public, especially to the students during this time of crisis brought about by Covid-19 pandemic. Psychoeducational programs help people recognize the cognitive and social abilities they can use to improve their well-being (Brekke, et.al, 2013). In this way, they can make sense of their experienced mental and physical symptoms due to pandemic. While Moreno-Lacalle (2017) reported that there are no adequate data to prove the effectiveness of psychoeducation in decreasing the likelihood of people with mental health problem like depression, it is still good that guidance and counseling offices will continue

to provide psychoeducation to students as suggested by the participants of this study.

Psychosocial Support. The participants reported that emotional support by just simply listening to concerns is a great help for students. From their adjustment to the new system in school to their personal concerns, a gesture like checking on them from time to time through phone call will make them feel better. One informant shared, *"They may call and check on us. That way we feel there are people willing to listen to us with our struggles in online class."* In addition, the same suggestion was pointed out by another informant who expressed, *"Psychosocial support, maybe needed. They may call so students can express."* Psychosocial support is described as a process of facilitating resilience within individuals, families, and communities. This is done by promoting application of coping mechanisms to enhance human dignity, restore social cohesion and infrastructure (IFRC Reference Centre for Psychosocial Support, 2009). Hence, the suggestions of the informants are typical examples of activities implemented under this program. Further, De Paula, Moreira, and Andreoli (2016) reported the positive effect of psychosocial support programs to adolescents who are in crisis.

Conclusion

The Covid-19 pandemic has really tested the resiliency of young Filipinos. We found out that while there are reported cases of mental health problems in the locality for the past months, we also recognize that young Filipinos' stay resilient amidst pandemic. There are many reasons why plenty of young Filipinos remain resilient in the midst of different challenges that they faced. Let us recall that the province of Davao del Sur had been jolted with series of earthquakes last year which destroyed not only lives of people but also properties and livelihood. The province is yet to recover from the tremendous effects of the earthquakes and then the Covid-19 pandemic suddenly came. In addition, Digos City and some neighboring municipalities have also experienced flooding which also destroyed houses and temporary shelters during the time of Covid-19 pandemic. But young Filipinos stay hopeful and optimistic despite all these tragedies. The presence of their families and significant others and their belief in their ability to face these challenges by having the positive mindset and strong faith in God made them resilient and strong. We found out that spirituality allows them to find meaning in their experiences (Bayod, 2020) and to cling to their families and loved ones. As a result, some of them even engage into productive activities like gardening, watching movies, reading books, and even starting a business.

We would like to acknowledge that the participants of this study are living through times of crisis. But because they are living within their sources of strengths such as their family and friends, they were able to rise above the difficult situations. Their sense of spirituality and faith in God have made them to become optimistic and even courageous to face life's challenges. However, we also recognize the possibilities that mental health has no mask. Meaning to say everyone is touched by it and is vulnerable to having a mental health problem. Thus, we

aim to develop a mental health program that would suit the needs of the people in our community. We would like to use their strengths as a tool to make our program attractive to them. We can even tap them to be volunteers to give testimonies about how they rise above the pandemic to other college students who might still be battling inside with some confusion and trauma but are still reluctant to open up and seek for help because of the stigma that is still present in relation to seeking the services of mental health experts. Through this, we are hopeful that the culture of help seeking will shift from “shameful” and with full of stigma into a more open, accepting and collaborative.

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How Ethical Issues at the End of Life are Approached in Children: A Phenomenological Study of Pediatricians in Pakistan

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Abstract

End of Life decision-making, in pediatrics is critical, imparting a great burden of responsibility on those involved in the process. The decision-making is multidimensional. Pediatricians encounter many ethical concerns during this process. Qualitative, phenomenological research based on in-depth interviews of 12 pediatricians from three tertiary care hospitals of Karachi, Pakistan. Data was analyzed using Nvivo 9 software. Six themes were identified, a) Major factors are clinical information and available resource; b) It is clinically and psychologically challenging; c) Participation of parents is influenced by emotional, socio-economic and religious factors; d) Communication is the most crucial aspect of conflict

resolution; e) Institutional policies and expert opinions guide pediatricians f) Clinical Ethics consultation is underutilized in Pakistan.

The parents and pediatricians are responsible for decisions aligned to the best interest of children. The role of Pediatricians is critical as they look for the best possible ways to provide care through limited healthcare resources. Parents generally base their views on social and spiritual values. We recommend that healthcare organizations in Pakistan adopt clinical ethics consultation as a source of facilitation and support for these difficult decisions.

Keywords: *End of life, Pediatric ethics, conflict resolution, decision-making, ethics consultation, Pakistan ethics*

Introduction

Decision-making for children with life-threatening illnesses is extremely challenging. Advances in pediatric critical care allow doctors to keep children alive, even when the underlying disease is incurable and continued treatment appears to be merely prolonging the dying process. Such situations have led to profound concern about the ethics of continuing treatment among pediatric HCPs (HCP).

Most deaths in Pediatric Intensive Care Units (PICU) require decisions to withhold or withdraw life-sustaining medical treatment (LSMT) (Devictor et al. 2008, Lee et al. 2010). The process by which such decisions are made is complex and can be stressful. Parents have legal authority to make decisions for their children but some parents find such decisions too burdensome and remain involved only passively (Einarsdottir 2009). HCPs have a pivotal role in sharing medical information as they participate with parents in a process of shared decision-making. Doctors base their recommendations on clinical evidence and, always focusing on what is best for the child.

End of life (EOL) decision-making in children has been studied worldwide. Parents and HCPs have different preferences for involving each other but such decision-making requires time and extensive discussions between parents and various professionals (Whitty-Rogers et al. 2009, de Vos et al. 2011, Sullivan et al. 2014). As parents and families struggle with emotional stress, HCPs face ethical issues (Sullivan et al. 2014, Sullivan et al. 2015, Santoro and Bennett 2018, Mitchell et al. 2019). Inter-professional collaboration and communication have proven to be beneficial in providing high-quality care for ICU patients. Older children may be involved in the decision-making process conforming to their cognitive development (Whitty-Rogers et al. 2009).

Pediatric Bioethics is an emerging field in Pakistan (Lantos et al. 2019). Physicians face a constant challenge of bridging the gap between social, religious, and cultural values and principles of medical ethics. The decision regarding withholding or withdrawing life support is one such challenge in PICUs of Pakistan with limited resources. There is a lack of literature about perceptions of pediatricians from Pakistan.

The purpose of this study is to explore perceptions and personal viewpoints of physicians participating in the end of life (EOL) decisions in pediatric patients in Pakistan.

Methods

Qualitative design was used to conduct this phenomenological research. Experiences of pediatricians from three different tertiary care hospitals of Karachi were explored via audio-recorded in-depth interviews. 12 pediatricians participated in the study. The participants were selected purposively. The participants had more than two years' experience at the time of interviews. A 500 bed public-sector pediatric hospital of Pakistan was selected as one study site. Two private hospitals with large pediatric facilities, including one with the largest PICU in Pakistan, were selected as the research sites. The three hospitals have a combined total of 650 pediatric beds and more than 150,000 pediatric admissions per year.

A semi-structured open-ended questionnaire consisting of five questions was designed. The questions were reviewed by the research team and three pediatricians. The face-to-face interviews were audio-recorded so as not to restrict the views of participants. The total duration of each interview was on average 20 minutes. The audio-recorded interviews were transcribed using NVivo9 software. Typed notes of each interview were prepared by playing the recorded audio. Transcriptions were coded by each of the three authors separately – the authors then met to resolve disagreements. The major themes were identified and divided into sub-themes. The sub-themes were thematically organized and reviewed by the authors to avoid the lone researcher bias. Each sub-theme had the relevant information and comments, discussed in the findings below.

Results

Six comprehensive and inter-related themes were identified as discussed below.

Pediatricians have a major role in decision-making process based primarily on clinical judgment

The pediatricians in this study believe that they play a crucial and often a primary role in the EOL decision-making for children in PICUs. They believed that the most important aspect of EOL decision-making is clinical assessment. Most participants believed that unilateral decisions are common and many parents, being not well-educated, prefer to leave the decision-making up to the treating physician. Pediatricians, however, feel responsible for providing information and support to uneducated and poor parents.

Most participants reported that the decisions are made mostly on clinical grounds. The quality of life of a patient is evaluated on clinical parameters. *"Its essential for doctors to counsel parents about the anticipated quality of life"* (Participant 5). *"The physical handicaps can be overlooked but the mental condition and quality of life directly affect the decisions"* (Participant 7).

Many highlighted resource limitations as an important aspect of decision-making. The EOL decisions are based upon patient's prognosis, availability of ventilators, and futility of treatment.

"Considering lack of awareness of parents...we have to convince the family that prolonging the life of child will prolong misery...it is our duty to help them out"

(Participant 5). *"The cost, however, is not the goal rather the quality of life and interest of child and family is"*

(Participant 7).

"I am the care provider-I have to take whole responsibility"

(Participant 9).

"The responsibility lies with us" (Participant 8)

All participants agreed that communication with families is paramount. The parents are counseled and guided. The risk and benefits are explained to the families, facilitating them in making crucial decisions, and their decisions are always respected.

EOL decision-making is clinically as well as psychologically challenging for pediatricians

All shared their experiences of emotional distress while making such difficult decisions. *"Prolonging life means prolonging misery & pain for both patient & family"* (Participant 8). The pediatricians have to take the responsibility of decision-making and explain the futility of treatment to parents if the child is brain dead. They have to carefully weigh the decisions and information shared with families as, *"...it is not about the child only, but the whole family"* (Participant 9). They also shared that they make efforts to support parents as they deal with it emotionally, *"(it is a) ...tough thing for doctors. I try to make this experience/decision less difficult for the family"* (Participant 4).

Parents' participation in EOL decision-making is influenced by emotional and socio-economic factors

The pediatricians experienced mixed family responses and perceptions of EOL decision-making. Several influencing factors determine the response and reaction of each family. These include the socioeconomic status of a family, prognosis of a child, the acute onset of the illness, and emotional attachment with the child. If parents have financial resources for the treatment, they generally insist on continuing LSMT. Parents of acutely ill children are too overwhelmed with emotions and information to make a decision.

"In an acutely unwell child it becomes difficult for families to come to a decision, but easier to understand if the child has a chronic illness...time is crucial...in acute cases, poor prognosis is very difficult for parents to accept...emotions are high...that's very natural...they need time and support" (Participant 6).

Pediatricians presume that parents with family support cope better. *"Different families have different views, opinions, and reactions...involving grandparents or elders of family is always helpful"* (Participant 9)

Faith and religious beliefs of parents have a strong influence on participation in decision-making and coping. *"The group with very strong faith agrees with whatever we (physicians) say. They believe that God will take care of it"* (Participant 7).

Table 1: Pediatricians' experiences of parental reactions towards LSMT at the EOL:

#	Limitation of Life Support	Maximum Life Saving Support
1	<i>Sometimes we have parents who want to remove ventilator & intubation.</i>	<i>Most parents expect improvement; they think child will get well.</i>
2	<i>Some parents do not approve of painful procedures.</i>	<i>Some parents are too attached to let go...</i>
3	<i>Parents are generally not aware of end of life decisions in this part of world.</i>	<i>We explain to the parents about the expected quality of life of the child...we have to take decision in those perspectives as well...</i>
5		<i>Parents who are often resourceful are difficult to counsel & Physicians' decision gets overshadowed...</i>
	<i>There are times when family says do not put on ventilator</i>	<i>Some parents say do not remove from ventilator even if patient is brain dead.</i>

Communication is the most crucial aspect of parent-physician relationship and conflict resolution

Pediatricians realize the importance of communication in building trust with parents. Most participants shared their experiences in this regard; *"We try to stay constantly in touch with parents and explain to them each and everything"* (Participant 1). *"I often get the other pediatricians involved and take their opinions which in turn makes it easier for us to counsel the family"*. (Participant 2)

"We counsel the parents & guardians. Whatever the condition is, we put it in black n white...If a child is deteriorating, we tell them life is not in hands of doctors...Trust building is important...we try to explain them in language that is easily understood" (Participant 3).

Sometimes parents only require time and support from pediatricians. *"...If they do not understand (the situation) we have to counsel a lot...if they are unwilling to accept death, we give them time and counsel them"* (Participant 6).

The pediatricians discussed situations where HCPs and parents have conflicting views. Often, these disagreements reflect the parents' strong spiritual and beliefs. These conflicts present challenging situations for pediatricians. *"Sometimes there are superstitions about diseases and faith in pir (spiritual leader) for healing powers"* (Participant 11). *"Spiritual and cultural norms*

influence their decision-making...Sometimes they believe that putting on a ventilator means that you are giving more pain to the patient & sometimes they don't even allow CPR" (Participant 9).

Extended family is frequently involved in meetings with clinicians and participate in decision-making. "Sometimes extended family and senior family members create conflict even when they do not have any financial stake" (Participant 5). "Distant family is not that emotionally involved...bringing in grandparents sometimes helps" (Participants 6 & 8), "...but extended family and non-family people say you should have done this or that" (Participant 9).

Physicians in public sector hospitals of Pakistan frequently face situations when parents cannot afford medical treatment for children. Physicians go out of their way to continue providing care to children, even if parents don't have money to pay for it. "...Most patients come from remote areas with poor medical facilities and they are financially exhausted...we arrange financial support" (Participant 1). Most of the pediatricians believe that it is the family's right to dissent and the final decision lies with them. "It is their right to disagree and if so, I meet them with my team, and even then, if it does not work out, I'll offer to change services" (Participant 4). "Final decision is always with the family...opinion of the family should always be respected" (Participant 8). "The final decision is always with the parents...we cannot treat without parental consent" (Participant 1). The same participant shared that "the aim is always to save a life and benefit the patient".

Dealing with such conflicting situations demands different strategies including open communication and multi-disciplinary team involvement in patient care. Another clinician is often involved for a second opinion in difficult decision-making. "When both doctors agree, the family accepts...when explained properly it is easier for them to accept...Time taken by parents depends on how you explain..." (Participant 2).

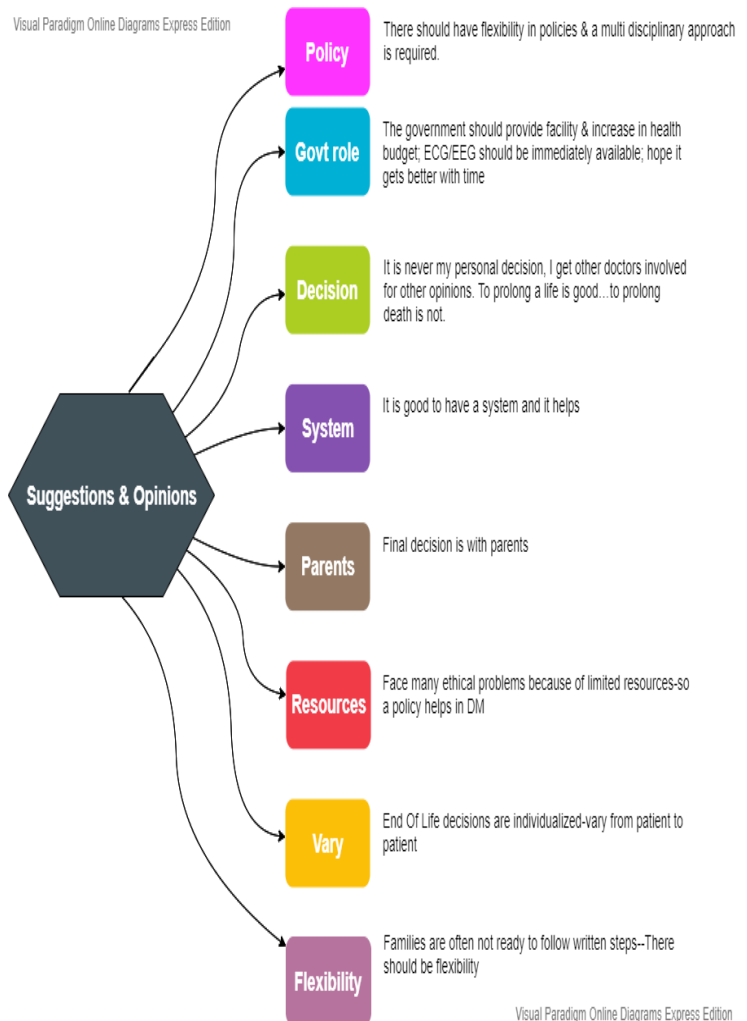
Role of Hospital Ethics Committees

The involvement of the Clinical Ethics Committee (CEC) was mentioned by 9 out of 11 participants. Two of the three institutions that these pediatricians belong to, have functional CECs. Most of these participants were familiar with the role of CEC and hence highlighted its importance in decision-making in conflicting circumstances. "We have structured approach, whenever we have an end of life decision at hand, we call CEC for each case; this is part of our PICU policy; a decision is never taken by a single doctor for end of life in an active withdrawal or Do not Resuscitate (DNR) orders in PICU...along with the other consulting services, we always involve ethics (committee)" (Participant 2). "Yes. CEC makes it easier...Parents come with high hopes...bad news does not sink in well...and physicians also get involved emotionally...CEC rationalizes decision-making, brings in a neutral view" (Participant 5). "...yes, (CEC is) great help... It helps physicians & families both because families need repeated counseling" (Participant 8). Some participants had

a different opinion about CEC. "We try to make the extra effort and usually resolve the issue but if that does not work, then we go to CEC...I am sure it helps but I would not prefer it because they are not pediatricians and are considered as the last resort!" (Participant 4). "...For the wards, it is fine but not possible for huge patient turnover and seniors are in contact 24-hours and act more than CEC" (Participant 1). When asked about whether they thought CECs are necessary, a participant said, "No, not convinced, because all responsibility lies on primary physician...We involve the senior-most family member (often male in a male dominant society) because they influence Decision-making of family----final decision is with the family" (Participant 9).

Institutional policies and experienced professionals for advice and guidance

All participants discussed clinical guidelines followed in PICU for clinical decision-making. There was uncertainty among the participants about fixed guidelines or policies for EOL decision-making because, "situation varies", "each case is different", "families cannot follow rules", and the policies "...should be flexible". The participants shared concerns about lack of accountability within institutions and the dearth of support from the government in developing and monitoring policies. "It is good to have a system and that helps" (Participant 4). There was also a concern raised about the need for state support, particularly in cases of child abuse.



Discussion:**Physician Prerogative vs. Parental Authority**

The role of parents in EOL decision-making is crucial. Grief may hamper their decision-making abilities (Cornfield and Kahn 2012). Parents find it difficult to accept the news that their child has a terminal illness.

In reports from other countries, doctors often involve older children and adolescents in decision making. Young adults with terminal illnesses may have views different from their parents (Fischer et al. 2013). In Pakistan, the parents or male members of the family often feel responsible for making such critical decisions in order to protect their children and family from any harm (Cochran et al. 2017). In this study, however, the pediatricians did not comment on patients' role in decision-making. This may be due to the cultural practice of elders making decisions, in Pakistan.

A good parent-physician relationship is crucial when making tough choices. Parents have a right to accurate and comprehensive information about their child's illness, treatment options, and prognosis (Buonocore et al. 2012). This information must be delivered empathetically. Parents may require time to get a grasp of the information. The two most important tools, discussed by pediatricians in our study, are time and communication. Particularly in cases of brain death, pediatricians in Pakistan continue engaging with parents, reaching out to them while sharing medical information and listening to their concerns.

The pediatricians in our study repeatedly mentioned that decisions are based on clinical assessment of the patient. Withdrawal or withholding of LSMT is only acceptable when survival is unlikely. When HCPs and parents disagree, the pediatricians seldom go to the courts.

Socio-cultural and religious influences

Religious and cultural beliefs have a strong influence on decision-making by parents and families (Moazam 2000). Most Pakistanis are Muslim. Muslims firmly believe that the moment of death is divinely ordained and that doctors are doing divine work. Our respondents echoed this view. Some interviewees suggested that parents with firm religious beliefs show more confidence in the decisions of HCPs. They also display faith in whatever God has planned for their child.

The pediatricians interviewed in our study did not express their personal beliefs at all. It seems that they like to keep their personal preferences to themselves while making such decisions. Further exploration of this aspect would be informative.

Multi-disciplinary approach and Ethics Committees

When doctors face EOL decisions, they frequently seek other opinions. A team of HCPs considers multiple aspects of care evaluating each case individually. As in other countries, consultation can be extensive and time-consuming. (de Vos et al. 2011, Michalsen, et al. 2019). All pediatricians in our study, shared their experience of extensive discussions within the primary team and with other relevant professionals.

Doctors facing such decisions may consult the palliative care experts or the Clinical Ethics Committee (CEC). The two play facilitatory role in decision-making. South-East Asian countries are only beginning to establish CECs (Hajibabae et al. 2016). Clinical ethics and particularly pediatric ethics consultation is a novel concept in Pakistan (Lantos et al. 2019). Very few opportunities for training and teaching in this domain exist. Our study showed mixed opinions about the involvement of CECs. Some pediatricians acknowledge the value of CEC in hospitals while others believe that decisions are better made by the primary care team. Two of our three study sites have CECs that formally participate in the decision-making process.

Strength and limitations:

This study is exclusively based on the physician's perspective. A study of parents might generate different results. We have brought into light many ethical issues encountered by the doctors who are actively involved in PICU's making EOL decisions. The number of participants is relatively small. Pediatricians who were unable to participate may have different experiences which are not included in this study. Nevertheless, these clinicians work at hospitals with large pediatric units and so may be more experienced than many clinicians in the care of critically ill children.

Conclusion:

EOL decision-making in children is a complex and emotionally draining experience. The parents and providers are responsible for decisions aligned to the best interest of the children. Pediatricians rely on clinical judgment, communication skills, trust-building, and teamwork to meet this challenge in Pakistan. Parents are guided by socio-cultural and spiritual values.

Most healthcare institutions in Pakistan lack ethics consultation models. Pediatricians have mixed feelings about such committees. Further exploration of parents' and nurses' experiences of EOL decision-making is essential to help make this process less burdensome for all stakeholders. It is also recommended for healthcare organizations to study the use of clinical ethics consultation as a source of facilitation and support.

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Stigmatization in the wake of COVID-19: Considering a movement from 'I' to 'We'

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Abstract

Epidemiological crisis during recrudescence of pandemic like COVID-19 may stir fear and anxiety leading to prejudices against people and communities, social isolation and stigma. Such behavioral change may wind up into increased hostility, chaos and unnecessary social disruptions. A qualitative exploratory approach was utilized to conduct an extensive review of secondary literature. The case-studies were gathered from academic literature like articles, opinions and perspective pieces published in journals and in grey literature like publications in humanitarian agencies and media reports. Grey literature was included in the scope as the COVID-19 situation is still evolving.

I discuss some of the mechanisms of stigmatization and how social connectedness and empathetic understandings can be a way out of negative stereotyping and discrimination met out to the sufferer of the communicable diseases as COVID-19. Empathetic understanding paves a way to approach a problem from the perspective of 'we' not limiting one only to 'I'. The moment when we make an approach from 'I' to 'We' actually then we embark on a journey of illness to wellness.

Keywords: COVID-19, pandemic, stigma, discrimination, mental health, empathy, India, Face-to-face communication, social distancing, suicide.

To stay alive we need to think as one Big community, The greatness of a community is measured by the compassionate and intelligent action of its members.

Stigma is referral of an attitude that is immensely disturbing (Goffman 1963, p-3). Stigmatization is identified as chronic social and physical restraint of a person(s) by other human. Stigma negatively affects those who possess certain attributes and are viewed differently by those around them and by society; as such it exerts significant influence over people's identity. In the case of COVID 19, there are increasing instances of social stigmatization because of the lack of knowledge and previous unawareness of the disease. The paper propose to discuss some of the mechanism of stigmatization and how social connectedness and empathetic understandings can be a way out of negative stereotyping and discrimination met out to the sufferer of the pandemic. Empathetic understanding paves a way to approach a problem from the perspective of 'we' not limiting one only to 'I'. The moment when we make an approach from 'I' to 'We' actually then we embark on a journey from illness to wellness.

Stigma –an Implicit Biasness

Implicit biases are found among people of social groups of different races, religious practices, and gender classifications connecting group members earmarked with attributes in virtue of their social group membership. Seemingly without being aware, unintentionally certain traits are attributed to certain group by dint of belonging to that group member and this can lead to the differential treatment of group members. In certain experimental studies conducted there is implicit association of obese people with laziness and incompetence. In a study of implicit racial bias participants were presented with images of weapons and prior to it they were given photos of white and black-skinned people. Those who viewed picture of a black man's face were likely to associate them with weapons and violence. There is a similar unconscious or unintended form of bias and prejudices working behind even in the occasion of pandemics. Such implicit bias are root to bad beliefs and this lead to atrocities committed against health workers working with COVID 19 patients and those who may be affected by the virus.

The state response is largely concentrated on physical health consequences and implications of COVID-19. The focus on transmission of the infection left little room for public attention to the psycho-social results of the outbreak in the affected individuals and as well as in the general population, with particular reference to India where resources for mental healthcare availability is limited. Stigma makes it less likely for a disease to be of interest for funding of research or services. Stigma makes it less likely an individual to be transparent about symptoms of the disease because of the negative social implications of having that label of diagnosed. Now most stigma scholars regard stigma as a social construct and regard the variability across time and cultures in what attributes, behaviors, or groups are stigmatized (Major and O'Brien 2005).

Erving Goffman (1963) holds stigma to be a negative trait that devalues an individual within a particular scenario or culture (p. 2). Goffman opines stigmatized people are regarded as abnormal by society. To Goffman stigma is a relational concept, it is only in the occasion of interaction between two individuals that stigma is

effective (Goffman 1963). Stigma generally is context-specific. It has “marks” associated with “discrediting dispositions”—negative evaluations and stereotypes. The stereotypes are shared widely and quite known among members of a culture and they become grounds for shunning members of the stereotyped category (Major and Eccleston 2004).

I now here put forward some of the mechanisms by which stigma may affect the stigmatized and how it may impact those working for the relief of COVID-19 sufferers and those infected by the disease.

Discrimination-Negative Stereotyping

When we exert limitation on the accessibility of significant life domains, we discriminate and this attitude directly affects the social status, the mental as well as the physical well-being of the stigmatized in a negative manner. This stereotyping or labeling can even escalate to acts of violence against persons or groups.

The fact that viruses do not discriminate, people do, has now become quite transparent during the COVID-19 pandemic. Health-associated stigma or rather the negative associations between a person or a group of people who share certain traits and certain morbidities as much as the disease itself crosses generations, societies and cultures. When stigmatization leads to defaming an organization or business place, verbal or physical threats against individuals and families because of their exposure to the virus, then it becomes really worrisome.

I would like to share the instances of stigmatization as observed in the country which is said to report the first few cases of COVID-19 before it took the world by storm. It was reported that on 27 January 2020 China Southern Airlines in their flight from Nagoya to Shanghai some Shanghainese passengers on board refused to fly with other passengers from Wuhan. Two of the Wuhan travelers were unable to board because of the fever they were suffering. The Shanghainese on the spot raised allegations that other passengers from Wuhan have taken medicine to bypass the temperature check. Things took such a turn that various cities and prefectures outside of Hubei adopted resettlement measures for Hubei people in Zhengding and other areas for example if incidents of visitors from Hubei or Wuhan taking up hotel accommodation were reported to the local government, the informers were rewarded. Wuhan natives in other provinces were turned away from hotel accommodations, those having their ID numbers, home address and other essential details deliberately leaked online (Gan 2020).

During March and April 2020, media like *The Globe and Mail* reported cases of xenophobia towards foreigners. This kind of discrimination and negative attitude of the China has been attributed to the perturbation of the second wave of the virus infection. Though it is of significance that Chinese vice-foreign minister indicated that 90% of imported COVID-19 cases were PRC nationals returning from overseas (Yan 2020, Bloomberg 2020)

Expectancy-Confirmation Procedure

Expectation-confirmation theory posits that satisfaction is determined by interplay of prior expectation and perception of delivery. The self-fulfilling prophecies contribute to the maintenance of social stigma and the inferior status of stigmatized individuals (Jussim, et.al. 2003, p-374). The perceiver’s negative stereotypes and expectations is a route to a behavior where a perceiver may act toward stigmatized person’s thoughts, feelings and behaviors. There has been a spike in escalation of misinformation, particularly through social media, either out of ignorance or in the furtherance of vested interests. As a consequence, there have been attacks on health workers and police personnel and subject to ostracism particularly in India. Ignorance and fear of contagion has led neighbourhoods to block the entry of those have recovered and of health workers, pushing people with mild symptoms not to access medical aid, thereby putting themselves as well as others at risk. The stigmatizing effects of negative expectancies were observed in the human interactions between the health workers and the perceiver. The perceivers’ expectancy that the health workers involved in COVID-19 treatment are means to the spread of the virus as well as the actual diagnostic status of the target (here the health workers) adversely affected the health worker’s interactions with the society.

Psychologists say the desire to identify and castigate those who are ill harkens an age-old instinct to protect one own and relatives from catching a potentially fatal morbidity and indulge in a belief, however unfounded and baseless, that those who is suffering or catching the disease got to bear some responsibility.

I here now cite the case of Dr. Sanjibani, a 34-year old doctor working with COVID-19 positive patients in the government-run civic hospital in Surat who was unduly harassed for being a medical professional working with corona virus patients. She was initially ridiculed as a carrier of corona positive by her insensitive apartment neighbors. When she refused to pay heed to the banter she was denied entry to her own home. She was dragged out of her house (Trivedi 2020). The man who harangued and assaulted her was charged and arrested before being released on bail.

After a public apology was issued the concerned, Panigrahi chose not to press further charges; she plans to find a new apartment when the lockdown is over. Such instances of assault and forceful vacating of accommodation could be observed even in West Bengal, Kerala and Karnataka to name a few. The stigmatized targets all adopted a defense mechanism and they were taken by surprise by the perceivers’ attitude towards them. The stigmatized targets’ behaviors confirms the initial, erroneous, expectation and even lead to expectancy-consistent transformation in the targets’ self-perceptions (Fazio et al. 1981). The target need not be aware of others’ expectations, stereotypes or prejudicial attitudes for this process to unfold.

Stigma as Identity-Threat

The majority of intergroup research has focused race and ethnicity, characteristics of a ‘social group’ typically

visible and obvious to others and are not seen as under personal control. The present approach to stigma emphasize the extent to which stigma's effects are mediated through targets' understanding of how others view them, their interpretations and analysis of social contexts and their agendas and aims. These theories in its proceeding from the general to the particular emphasis on people's construal's of their environment and self-relevant motives how it affects their emotions, beliefs, and behavior. In their upended journey, there is assumption that interpretation is grounded upon direct or vicarious experiences with being a target of negative stereotypes and discrimination. This kind of 'top-down' and 'bottom-up' approach presumes that stigma raises risk for a person in experiencing threats to his/her social identity.

This heightened stigmatization puts to risk drastically the self-esteem at personal and collective level and can lead to uncertainty as to whether outcomes are due to one's personal identity or social identity. Steele and others draw the hypothesis (Steele et. al. 2002) that cultural cognizance or situational cues that marks out if one's group is devalued, marginalized it invariably leads to social identity threat. This threat is to the self that is derived from membership in a devalued social group or category. I here now mention how self-stigma led to a spate of suicides linked to COVID-19 both globally and across India.

The decreased access to mental health treatment risk is colliding with the rising suicide rate; this is one of the dangerous outcomes of the COVID-19 pandemic. The 'JAMA Psychiatry' journal has asked us to exercise care when we deal with mental and health related problems in the time of pandemic. It has been observed that the measures adopted to curb the spread of the virus like 'social distancing' can exacerbate pre-existing mental problems.

Severe stress over the fear of contracting or infecting others with the virus, losing social positions and chances of social ostracism are some of the reasons to trigger self-harm to an individual. Many individual committed suicides on the pretext that they are suspected of being COVID-19 affected (Banerji 2020). The use of dehumanizing expressions like 'COVID-19 infected' 'suspected cases' with a negative attribution of words like 'infectious' 'dangerous' in public discourse is a negative stereotyping and creating a category of 'them' different from 'us'. This polarizing rhetoric and vilifying can create a strong divide and results into stigmatization. Denominations of 'super-spreader' 'infecting others' or 'transmitting virus' in media colloquial and public discourse have an intonation of assigning blame and responsibility on affected individuals undermining empathy towards them. Such discriminatory behavior may pose threat to the self-identity of an individual.

Individuals who regard their stigmatized social identity as a core part of their self-identity are more likely to view themselves as targets of personal and group discrimination (Sellers & Shelton 2003), especially when prejudice cues are attributionally doubtful (Major et al. 2003c). Such people most likely appraise stigma related occurrence as self-relevant. As a result there is increased threat and lower self-esteem in response to

perceived prejudice against such group and they hardly cope or cope negatively in situations where the group is negatively stereotyped.

What are the ways by which we can overcome the negative effect of stigmatization? Inflicting self-harm can be lowered and self-esteem can be improved upon through a 'pulling together effect'. This kind of pulling-together effect can be improved upon through strengthening social connectedness. Pandemic may inculcate physical distancing between individual but in a way should emphasized upon social and mental distancing. To bring about social connectedness we need empathy to understand an individual in the social construct. Empathy basically refers to the perspective of a person as more of 'you' ceasing no longer to be 'it' (Froese 2011) that is; someone with their own subjective cognitive and affective experience is a point to begin to view people's social perspective that are labeled as 'different'.

Empathy---an answer to stigmatization—a movement from 'I' to 'We'

In a broader perspective empathy has been proposed as one of the means of coming at the problem of other minds, that is, how it is that we come to understand one another as having minds (Steuber 2006). Empathy is an important social cognition which provides access to the other person's mind. Empathy is the capacity to share the feelings of others morality and pro-social action. Empathy has a role in altruistic motivation behavior. The problem of other minds stem from the assumption that other minds are to a fundamental extent 'unobservable constructs' (Johnson 2000). The observed behavior and actions of another person gains meaning when it is interpreted. This reflects an epistemic gap (Crocker et al. 1998) which is to be bridged by some perceptual or extra-perceptual mechanism. It is assumed that a person understands another by imaginatively presenting herself into the circumstances of the other thus enabling an approximation of that person's affective or cognitive state as by the stimulation theory. Necessarily we use our own minds a model for the other person (Steuber 2006).

In a meta-analysis scrutinizing of the relationship between different kinds of empathy and pro-social behaviors such as helping, sharing, and giving to others, researchers found significant positive relationships between the two, irrespective of how empathy was measured (Eisenberg & Miller 1987). Daniel Batson and his colleagues have tested both the limits and efficiency of empathy-based pro-social responding (Batson 2011). Batson pointed out evidence suggest that feeling empathy for the person in need is a significant motivator of helping. High empathy may mitigate aggression in response to personal threats. With respect to prejudice and stigma, when people are specifically instructed to empathize with out group members, it has more positive effect.

There are a myriad number of ways or instances in which we interact and learn information about each other and here I would focus on face-to-face interactions. Concepts of stigma and empathy that provide an account of social cognition should account for this range. One element that is significant to the forms of social

understanding is the amount and type of information that constitutes instances of social understanding. Social interaction happens not within a vacuum but in a heterogeneous and structured social world.

To be co-present with another person is one of the most basic forms of interaction. It involves engaging with a person who has bodily presence in front of the person. In face-to-face interaction one can reach out and grab and talk with a person (which can be supported further by sharing a common language), cry, laugh, shout etc. Their idiosyncrasies e.g. particular verbal ticks, their unique features e.g. tone of voice, smell, posture, manner of speaking etc., are available. It is so enriched with information. Empathy in the sense of sharing category membership that we ascribe both to ourselves and the other person is also possible, as the other person's actions may reveal some commonality. One can feel anger towards this person, joy, indifference, attraction etc., but you cannot deny their presence entirely. Dehumanization is possible but this requires particular supporting conditions e.g. a wider social, cultural, political and infrastructural framework that serves as a backdrop to the interaction. To tackle stigma and increase the likelihood of empathy there should be increasing face-to-face interactions with people of stigmatized groups along with bringing about change in any infrastructural elements that may easily delineate in-groups from out-groups.

Conclusion

We need to promote openness to difference. The contact-based awareness strategies help in opening one's mind and looking at other's problem as one's own. Face-to-face stigma reduction training both for healthcare providers as well as for common mass is a wonderful anti-stigma program. Thus we can see interaction, results in reduced anxiety about contact and increased empathy and perspective taking.

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