**A Case Study on Settling Water Pollution: Implication on the Health of Philippine Citizens**



**IN PARTIAL FULFILLMENT FOR SUBJECT**

**GENERAL EDUCATION ELECTIVE 2 – EGE 312**

**Submitted by:**

**Feil, James Bryan**

**Magbutong, Rejoice**

**Maureal, Hanna Jane**

**Montera, Ramel**

**Pineza, Dina**

**Prollo, Jan Andrianne**

**Raagas, Randel**

**Submitted to:**

**Ms. Virnalisi C. Mindaña**

**May 2021**

**Let’s Do It!**

**LE2 – Case Analysis (Group Task)**

**This task was already presented to you earlier along with Module 3.**

**Instructions:**

**• Identify a specific environmental problem/issue within the Philippines It**

**can be somewhere in the lines of pollution/waste, endangered animals,**

**deforestation etc.**

**• After identifying the issue/problem, your group has to devise an**

**intervention/ solution for the case/ problem.**

**• Improve your intervention plans/ solutions by highlighting concepts and**

**ideas you’ve learned from this course pack.**

**• Utilize the template given below**

|  |  |
| --- | --- |
| **Case Analysis Title** | Settling Water Pollution: Implication on the Health of Philippine Citizen |
| **Background** | The Philippines is a Southeast Asian country made up of 7,107 islands that are separated by the Luzon Strait, the South China Sea, the Sulu Sea, the Celebes Sea, and the Philippine Sea. Corn, sugar cane, root crops, and rice can all be grown in the warm climate of the islands. Agriculture occupies about 32% of the Philippines' overall land area. About the fact that trade has aided the Philippines' economic development, the country has also undergone some detrimental effects of globalization, including pollution of the country's lakes and waterways, which has become a major source of concern. Hazardous materials are now being dumped freely into Laguna Lake and the Pasig River by suppliers. According to a Greenpeace study, 50 of the region's 421 rivers are biologically dead, meaning they are no longer alive contain little oxygen, and are incapable of supporting other forms of life. Just 47 percent of the Philippines' 127 freshwater bodies have adequate water quality, according to the Environmental Management Bureau (EMB). In addition, 58 percent of freshwater supplies were found to be contaminated. Contamination of coliform bacteria Even the Marilao River, which flows through Manila, was named one of the Top 10 Most Polluted Rivers in the World by Soapboxie. The expense of the Philippines' water contamination problem is expected to be USD 1.3 billion a year. The high level of pollution in the local water system has hurt the quality of the water.  This country in Southeast Asia has a unique way of life.  In the Philippines, water sources are contaminated with a variety of toxins. Chemical toxins such as chromium, cadmium, lead, arsenic, and cyanide can be found in industrial water waste. These pollutants are often referred to as stock pollutants because they last for a long time, but because they come from manufacturing sources, they can also be classified as point-source emissions. Chemical pollutants such as decomposed trees, farm manure, dead animals, soil runoff, and residue have all added to the Philippines' pollution crisis. 18 These emissions are known as nonpoint source contaminants because they do not derive from manufacturing sources. Chemical leaks, accidental oil as well as unregulated waste dumps, are contributing to the Philippines water crisis. The prevalence of these pollutants has had a major effect on Filipino's everyday lives.  The Filipino people's welfare begins to deteriorate as time progresses. Over a five-year period, waterborne pollutants were responsible for around a third of all deaths. In the Philippines, illnesses are common. Diarrhea, cholera, and a variety of skin diseases can all be contracted due to an excess of waterborne viruses and bacteria in drinking water. Bioaccumulation is a term used to describe the deposition of toxins in the fatty tissue of humans and other organisms over time. Cancer death rates are high in urban areas with insufficient sanitation facilities.  Water contamination not just harms people's wellbeing, but it also harms the atmosphere in an irreversible way. Eutrophication is a widespread issue that occurs when organic materials stored in water deplete the oxygen available, resulting in anaerobic algae blooms. Such toxins increase oxygen intake, putting individual species under threat. Thus lowering the capacity to live as a whole. Since there isn't enough oxygen in lakes, rivers, wetlands, and streams, river-dwelling organisms like fish suffer, and animals that depend on waterways become endangered. Pollutants can also alter the physical characteristics of water.  In the Philippines, large levels of water waste have resulted in a general decline in public health. Poor health lowers work productivity while still lowering life expectancy, trapping people in a health-related poverty cycle. Since there are fewer jobs in the labour force, each worker must now take on more responsibilities, resulting in a decline in the quality of employment. As a result of the decline in productivity, economic growth is slowed. Lower productivity leads to lower incomes, which in turn leads to a reduction in life expectancy in the coming years. |
| **Intended Outcome** | This paper provides an in-depth analysis of the Philippines' water shortage, as well as its consequences and impacts on local people's welfare. It would then outline of possible solution for the Philippine government to take, as well as the benefits and disadvantages of each. This paper would choose a policy proposal from among these choices that would enable the government to consider the needs of international environmental ngos, including funding for educational outreach projects that raise awareness of the crisis. These services will educate people about where to find clean drinking water and how to avoid contracting a water-borne disease. As a result of this action, the Philippine government will take measures to protect its citizens while keeping the cost of the effort to a minimum. |
| **The Challenge** | Being advised that the water coming out of one of the faucets, the water you drink and bathe in, holds chemicals like mercury and feces. Imagine the local authority was aware of these threats but chose to keep them hidden until the majority of the people you met and loved had become sick.  In the Philippines, this hypothetical scenario is currently a fact. Most species of life are unable to survive in an eighth of the country's waterways, which are too poisonous for human and animal use or touch. Furthermore, just about half of the Philippines' overall amount of rivers have water that is fit to drink. Contaminants present in large and small bodies of water have been blamed for one-third of the confirmed illnesses in the Philippines in recent years. Surprisingly, the Philippine government's response to the epidemic has remained minimal. |
| **The Solution or Intervention** | It is in the Philippines' best interests to delegate this issue to foreign organizations. This would not absolve the Philippines' government of its environmental obligations. Instead, as a way of teaching Filipinos about the water shortage, the government will finance environmental efforts through grant projects. Since many Filipinos consume polluted water in their everyday lives as drinking and bathing water, education is essential to understanding the scope of the issue.  Apart from helping people appreciate the issue, these organisations offer education about how to get clean drinking water and how to avoid it. To deter the spread of water-borne diseases through the Philippines, prevention strategies, including protection precautions, will be addressed. The government's reliance on outside organisations has trade-offs that should be considered. |
| **Key Points for Effective Practice** | As a result, the Philippine government would be forced to rely on non-government organizations to help combat the disease. However, since federal grants are allocated to the sum the government has agreed to contribute to the cause, this choice limits government expenditure on the issue. Whether or not the majority of people go through the school experience, this approach has the ability to reach the masses. Environmental organizations' news stories and social media reports about the scheme would gain attention and be able to transmit warnings about the actual condition of the polluted water. Environmental organizations' news stories and social media reports about the scheme would gain attention and be able to transmit warnings about the actual condition of the polluted water. The information provided by the organizations has the potential to influence Filipino citizens' behavior in the long run. This choice does not provide immediate alternatives to the high levels of toxins now present in the water; however, long-term reform would be more helpful to the country's future. Preventative action could be too late at this stage, and this alternative does not address any positive short-term water contamination solutions. |
| **Conclusion and Recommendation** | Limiting government participation and delegating the bulk of liability to multinational organisations such as Greenpeace, EarthFirst!, or the World Business Council for Sustainable Development is the most realistic approach. The Philippine government has also given some assistance in addressing the problem of water contamination. They should make an effort to offer grants to foreign organisations that support environmentally friendly activities, but they should make it clear that the funds are to be used for educational opportunities for Filipinos. The government does not currently have the money to change all water sewage facilities or offer financial benefits, so it can encourage people to use public transportation approach these groups with the possibility of enlisting their help in leading the reforms in exchange for additional federal support. To review scheduling, development, and other issues, meetings should be held. This will foster confidence in the parties concerned, while making the meeting minutes public will increase accountability. This procedure is likely to produce the desired outcomes.  People can discover how to get safe drinking water close to their homes and how their activities could be affecting water conditions as a result of these actions. Citizens will learn how poor practices on their small farms or in their homes led to poor water quality, as well as how a big factory near their town could affect their family's health and income. Smart water activities will be extended throughout the country as a result of these organizations' involvement. Individuals who have contracted waterborne pathogens would have access to resources. |
| **References** | Agénor, Pierre-Richard. “Public Capital, Health Persistence and Poverty Traps.” Journal of  Economics. 115.2 (2015): 103-131.  “Asia-Pacific Information Platform on Agricultural Policy.” Republic Act No. 9275: The  Philippine Clean Water Act of 2004. 2004. http://ap.fftc.agnet.org/ap\_db.php?id=281.  Evans, D. “The Formation of a River-Basin Authority Through Local Participation: A Case  Study from the Southern Philippines.” Water and Environment Journal. 18.1 (2004): 36-  38.  K. “What Are the 10 Most Polluted Rivers in the World?” Soapboxie. August 03, 2017.  https://soapboxie.com/social-issues/What-Are-the-10-Most-Polluted-Rivers-in-theWorld.  Marrone, Rhonda. “Water Pollution in the Philippines: Causes and Solutions.” BORGEN.  February 28, 2018. http://www.borgenmagazine.com/water-pollution-in-the-philippines/.  Philippines.” OEC - Philippines (PHL) Exports, Imports, and Trade Partners. 2017.  https://atlas.media.mit.edu/en/profile/country/phl/.  Philippines: Providing Sewerage and Sanitation Services to Over 3 Million People.” World  Bank. April 8, 2013. Accessed April 10, 2018.  http://www.worldbank.org/en/results/2013/04/08/philippines-manila-third-sewerageproject.  “The Problem.” Greenpeace Philippines. September 29, 2010. Accessed 2018.  http://www.greenpeace.org/seasia/ph/What-we-do/Toxics/Water-Patrol/The-problem/.  Wu, C. Maurer, Y. Wang, S. Xue, and D. L. Davis. “Water Pollution and Human Health in  China.” Environmental Health Perspectives. 107.4 (1999): 251-256. |

**LE3 – Advocacy Campaign (Group Task)**

**This task is related to the environmental problem/issue your group covered in the**

**Case Analysis (LE2). Your group must construct a poster slogan that highlights**

**your group’s personal campaign to provide awareness on the environmental**

**issue at hand as well as develop accountability and environmental responsibility.**

**Your output can either be digital or on paper and will be evaluated along side**

**your Case Analysis output.**