

Alison Mehmen  
Nashua-Plainfield High School  
Nashua, IA, USA  
The Philippines: Water and Sanitation Issues

## **The Philippines: How Water and Sanitation Can Heal a Country**

### **Background**

The Philippines was colonized in 1521 by the Spanish and was named after Philip II, the king of Spain during that time (Blancaflor, 2018). As of 2024, approximately 116.63 million people reside in the Philippines. Of these people, around 54% live in urban areas. Those who live in more urbanized parts of the country have greater access to clean water, safe housing, and proper nutrition. The remaining 46% live in rural, less innovative areas that have a greater struggle with a lack of proper water and sanitation needs, in addition to proper shelter, nutrition, and education (Borlaza, 2025).

Currently, the Philippines has a constitutional republic. Much like the United States, they have a president and three equal government branches. Their presidential term limits include one six-year term, so their current president, Ferdinand Romualdez Marcos Jr, who has served since 2022, will only serve until 2028 (“The Philippine President,” 2023). Additionally, Filipino people vote on representatives to make decisions regarding laws and government (“The Government,” n.d.).

### **Geography**

The Philippines is an archipelago located Southeast of China and Vietnam. More than 7,000 small islands are combined to create the Philippines. The landscape of these islands includes mountains, volcanic rock, beaches, coral reefs, grasslands, and woodlands (Borlaza, 2025). Given the diverse natural makeup of the Philippines, only 47% of the land is cultivated, at approximately 9.7 million hectares (SEARCA, 2023). Common crops grown on this land include sugarcane, rice, and corn in addition to tropical fruits such as mango, pineapple, papaya, and other citrus (Borlaza, 2025). The average farm size is 1.29 hectares. This is the equivalent of 3.1 acres or a little over three American football fields (SEARCA, 2023).

The climate of the Philippines is typically a warm and tropical environment, but specific factors vary between the two seasons each year. The majority of the year is the wet season, ranging from June to the beginning of November. During the wet seasons, immense rainfall occurs, in addition to common typhoons and cyclones. In some years, the Philippines may experience nearly 25 cyclones (Borlaza, 2025). The dry season occurs from the end of November to February. This is seen as the most desirable time of the year, as it is warm and dry.

### **Society and Culture**

The average household has 4.1 members as of 2022 (“Philippines Average Household Size,” 2022). Classic Filipino houses are small in size and made out of coconut lumber, bamboo wood, and different types of leaves. These houses are lightweight, making them not super durable during the tropical storms that occur frequently in the Philippines. These low-quality housing options make it difficult for communities to be sustainable from year to year (Jonas, 2022).

Typical jobs in the Philippines are normally centered around manufacturing, wholesale, retail, and administrative positions. These common employment options pay an average monthly salary of PHP 20,000 to PHP 30,000, which converts to \$500 - \$600 USD (“Average Salary in the Philippines,” n.d.).

The hourly minimum wage in the Philippines is PHP 67.13, which is \$1.15. Individuals receiving minimum wage do not have to pay income taxes. In Filipino families, typically only higher-class individuals can afford to send their children to school. Instead, fathers and children who are qualified will go to work to provide money for their families. As a result, education numbers in the Philippines are very poor. According to the United Nations International Children's Emergency Fund, 90% of 10-year-olds are unable to read simple words and text, 83% of 10-year-olds do not meet the minimum math proficiency, and 81% of 3 to 4-year-olds are not in preschool or any sort of education program (Education, n.d.). These numbers are not only due to the expense that education puts on families, but the lack of education and teachers available.

Since being colonized five centuries ago by Spain, the Hispanic culture remains present in the Philippines, observing many of their holidays, traditions, and celebrations. Roman Catholicism makes up around 86% of the population, Islam 11%, and the rest an assortment of other Christian denominations (Miller, 2023). The Spanish culture is predominantly Roman Catholic, and as a result, this is the religion most reflected in the Philippines. Filipino people have a deep appreciation for music, celebrations, sports, and family. In addition to typical sports, martial arts are very popular in the Philippines (Fajutag, 2015).

The typical Filipino diet is also heavily influenced by Spanish culture. The typical Filipino diet consists of a large portion of rice, some fish or type of meat, and a few boiled vegetables each day. They eat two to three meals a day, depending on the families' habits and the food they have available to them. Each meal of the day has similar contents, though dinner rolls, porridge, eggs, and teas are occasionally added. In addition, fresh juices are popular and often available ("Filipino Food: What to Eat When Traveling to the Philippines," n.d.).

Unfortunately, it is common for families to not be able to afford enough nutritious food for their children. The average wage that citizens of the Philippines earn is rarely enough to sustain a family, let alone provide safe, healthy food. In addition, people are unable to obtain higher-paying jobs due to the education barrier that the country faces (Angeles-Agdeppa et al., 2022). Without proper education, the country is at a disadvantage.

### **Water and Sanitation Issues**

The main issue the Philippines faces is the lack of safe water and sanitation (WASH) resources. Around 16% of families in the Philippines don't have any sort of access to proper sanitation facilities. That 16% accounts for 4.22 million families, which is approximately 17 million individuals. The general lack of sanitation resources includes safe water, waste management, and proper hygiene, all of which play a big role in individuals' overall health (Lu, 2024). There are a variety of factors and a lack thereof that contribute to this ongoing issue. As a result of the lack of sanitation practices, diseases and sicknesses are commonly spread, including diarrhea, cholera, and typhoid fever.

The lack of proper water and sanitation frequently results in poor overall hygiene. Females are especially affected when it comes to hygiene. Women and girls typically suffer more from a lack of water and sanitation due to their menstrual cycles, often leading to infections. Additionally, pregnant and birthing women need proper access to hygiene, and a lack thereof can lead to infections, sickness, and sometimes death. The elderly and children are also more affected by this because of their weaker immune systems, which make them more susceptible to sickness (Kayser et al., 2019).

Marginalized communities are also more likely to be affected by a lack of access to proper water and sanitation in the Philippines. Approximately 8.7 percent of the Filipino population is considered to be Indigenous. This accounts for 9.4 million people. When asked, 59 percent of these people think of themselves or their fellow indigenous people as 'poor' or 'food poor' (World Bank Group, 2024). Minority populations in the Philippines are more likely to experience food, water, and sanitation

insecurity. Often living in poorer communities, marginalized groups of people typically have less access to safe water, causing pollution, disease, and sickness among themselves.

Rural communities are also affected by a greater margin of poor water and sanitation facilities. Many rural areas do not have proper plumbing or sewage systems, resulting in open defecation. As a result, diseases are transmitted and spread at a faster rate in rural populations than in urban ones. According to the International Water Association, around 91 percent of families in urban areas have access to 'basic drinking water,' but only 27 percent have access to water that is actually deemed safe for consumption (Celeste, 2023). Access to water is worse in rural areas. Many times, the only way for rural communities to ensure 'clean' drinking water is to boil it to kill contaminants. The lack of education in rural areas ties into this problem. Without the knowledge of water, sanitation, and how to prevent sickness and disease, problems are much more likely to occur.

### **Causes**

Lack of education, as mentioned previously, many communities in the Philippines, especially rural areas, don't have access to proper education and school systems. While test scores and children's proficiency rates suffer from this factor, the effects of inadequate education span further than classroom results. Without education, communities are often left unaware of the effects of their actions. They lack the knowledge to make sanitary, safe decisions when it comes to waste disposal and safe water usage. In order to address the water and sanitation crisis in the Philippines, education surrounding it must be improved.

An additional contributing factor to the water and sanitation issues is the physical lack of proper facilities. Even the facilities that do exist, either as a communal space or within schools, are not satisfactory for proper waste management (Kayser et al., 2019). To improve the water and sanitation methods within the country, the facilities must first be put into place and made operable.

Lastly, the typical weather in the Philippines often creates issues for the country. The Philippines is prone to tropical storms for a large portion of the year, experiencing several cyclones and occasional typhoons each year. These storms create an added strain on the already limited resources of the country. The small number of sanitation facilities that exist is often no match for the Filipino weather (Kayser et al, 2019).

### **Previous Efforts**

While the water and sanitation crisis in the Philippines is severe, it has improved over the last few years, thanks to numerous efforts being put forth by the Planet Water Foundation, Water.org, and the WASH project. Water.org has worked closely with the Philippine government in an attempt to provide universal access to water and sanitation by 2028. So far, it is reported that they have reached 9.5 million people. They do this by partnering with financial investors and utility providers to create safe waterlines and sources that families can afford ("Philippines' water and sanitation crisis," n.d.). In addition, the Planet Water Foundation has implemented 430 projects related to clean, safe water in the Philippines since 2010. These projects include filtration systems for schools to provide proper access to sanitation and drinking water. Additionally, the Planet Water Foundation has helped with natural disaster relief in the Philippines as a result of typhoons and volcanic eruptions (Planet Water Foundation, 2025). In order to continue improving the water and sanitation issue in the Philippines, actions such as these need to continue happening.

To find the proper solution, other countries' successes should also be observed. In Madagascar, only around 54% of people have access to clean, basic water services, and only 12% have access to sanitation, resulting in the lowest availability of sanitation methods in the world. The Madagascar government invested 220 million dollars into the National Water Project to combat the situation. The efforts that they

have put forward mainly include infrastructure improvements to reach 650,000 people (World Bank Group, 2022). A combination of efforts such as this would be beneficial to the Philippines in resolving its similar water and sanitation issues.

## **Solutions**

To find a solution fit for the Philippines, there are a variety of aspects that need to be considered. First, they lack proper education in the areas affected the most by improper water and sanitation. In addition, the majority of Filipino communities don't have access to the proper infrastructure needed to improve water and sanitation facilities, and even if they did, the frequent natural disasters make them difficult to maintain. Overall, some barriers need to be overcome before water and sanitation can be improved in the Philippines.

The first step to creating a sustainable and impactful solution is educating people about the importance of water and sanitation. However, as previously mentioned, access to education in the communities that need it most is inadequate at best. To combat this issue, whole communities will need to be addressed, not just those that attend school. This can be done by holding educational events, classes, and training. First, leaders from several struggling communities would be identified and trained. They would attend a training that would provide them with information to bring back to their communities. During these educational experiences, they would be taught about the importance of water and sanitation. This would include information about proper hygiene, waste management, and what proper water and sanitation practices should look like. Once they were properly trained, these community representatives would bring their knowledge back to their communities to educate them similarly. This chain of education would hopefully continue until the entire community was well-versed in the importance of water and sanitation. The Global Council for the Promotion of International Trade recognized this technique as one of the top ten effective methods for water and sanitation restoration in the Philippines. 7,000 villages have seen success in Community-led Total Sanitation programs (CLTS), with an emphasis on community behavior rather than infrastructure ("Water, Sanitation, and Hygiene in Philippines," n.d.). By teaching the community to be dependent on its own members rather than the government, they will be able to feed off of each other and maintain their new practices for generations to come.

In addition to community education, the implementation of proper sanitation waste facilities needs to be put into place. These facilities will need to be well-built to withstand tropical storms, large enough to accommodate entire communities, and have a relatively simple structure to allow community members to maintain their upkeep. Facilities may include proper bathrooms and sewage, rainwater storage, water filtration systems, and hygiene stations. Rainwater harvest has proven to be an effective method for schools, public buildings, and communities, providing fresh water to those people ("Water, Sanitation, and Hygiene in Philippines," n.d.).

Funding for these aspects would be required. Thus far, the World Bank has managed the majority of the efforts toward water and sanitation practices in the Philippines. Given this information, they will be the group that has the most access to communities that need help the most. They are the most qualified and have the most information and resources to carry out this project (World Bank Group, 2024). In addition, many other countries' governments fund projects similar to this. Given the Philippines' lack of resources, money, and economic stability throughout the general population, the funding for this project would have to come from an external source. Typically, in situations such as this, water and sanitation programs (WASH) are funded by a combination of government agencies, charity foundations, and other non-profit organizations and donations.

For this solution to be successful, it must be sustainable. This will occur in a few different ways. First, during the education process, community members will be taught how to properly maintain the WASH facilities that are put into place. This will allow communities to be self-sufficient once the necessary

infrastructure is put into place and to keep it working properly. Additionally, after the education courses are implemented, the leaders of each community will do a six-month and a twelve-month check-in. This will ensure that progress is being made and determine if any further steps are needed for the program to succeed. At this point, leaders could request more help and resources, ask questions they were unsure of, and determine if they would like to have additional check-ups or if the program has been successful. Lastly, to ensure the longevity of these efforts, children that do attend school should be educated on the importance of water and sanitation to better prepare. By teaching the next generations, the hope for future water and sanitation methods will be increased.

To conclude, the Philippines' water and sanitation crisis will not solve itself. To alter the current situation, WASH programs should be implemented to increase community awareness and knowledge of water and sanitation, in addition to improving the facilities that are available to them. For this process to be successful, community leaders and members must be willing to change their methods and cooperate with each other. Together, communities will be able to address the issues that have long controlled them, including disease, access to proper water, and improving the overall quality of life in the Philippines.

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