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Philippines, Industrialization

Industrialized Agriculture

The Philippines is in Southeast Asia and it is a total of 111,830 miles; is made up of 2,000 inhabited islands. One island called Luzon makes up one-third of its population and the majority of the population resides in the North. The Philippines is an island, which means it has no land borders or boundaries. The island is surrounded by the South China Sea on the west and the Philippine Sea on the East, then the Celebes Sea in the South and the Luzon Strait in the North. The closest neighboring countries are Malaysia, Indonesia, Vietnam, and mainland of China. Their primary language is Filipino, Tagalog (native language), and English, when Tagalog became the primary language it was going to be called Taglish, a mixture of Tagalog and English. An average farm in the Philippines is 1.29 hectares and compared to a farm in the United State is 445 acres. The average size for a Philippine family is 4.4 people per household. My issue is on Industrialization and how it affects agriculture development. Depending on the country, industrialization can have a negative and positive impact on the country. For the US industrialization caused a series of laws and amendments that affect the way we live nowadays. The Philippines is the world's 37th largest economy with a GDP; of over \$330.91 billion US dollars and it is the 16th largest economy in Asia. Industrialization, in the Philippines the spark of industrialization is in the rural areas of the country. A lot of investments come from market-oriented agricultural research. They use technology for data analytics, artificial intelligence, geo-mapping, and drones. They use the technology for data collection of fruits, vegetables, water/soil research; climate, and markets. Industrialization causes major damage to agriculture, like the depletion of soil causing an increase in usage of chemical fertilizers, the rise in droughts, and the increase in erosion causing the soil to lose minerals and vitamins that are

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used to help the plant grow. Industrial farming can also cause diseases to be passed from animals to humans, where animals are close to each other so viruses spread easier among the animals.

Another problem with industrial farming is using pesticides and herbicides to kill bacteria and treating diseases can cause severe infections and cause serious health problems. This leads me to my final issue: food and water contamination, industrial factories cause pollution in the air and water which will lead to chemicals being used to kill the bacteria that was causing the contamination. With the chemical usage, the chemicals create a toxic nitrate gas that is harmful and leads to the death of infants, it is called blue baby syndrome.

Some solutions that I propose are to control animals' habitat or living conditions and make farms or stockyards have adequate spacing/rooming. Another way is to start and promote in-house grown fruits and vegetables for Hydroponic gardens to reduce the number of acres and water waste from farms. The start of promoting an in-house garden can help the environment because you can have full control over how your plants grow, from temperatures, sunlight, the nutrients your soil is exposed to, and insects. They can try to reduce the number of chemicals in the chemical fertilizer and try a new way to power their agriculture tools without using gas to make the engine start. Another solution is not to overproduce what you are selling, what I mean by this is not overplant fruits and vegetables because that takes up more water, soil, and fertilizer, which causes more issues later on because of pollution and erosion. These solutions can help in the agriculture world because they would promote healthy eating, a healthier lifestyle, and growing sustainable clean food. In addition to promoting healthier eating, it will be more expensive than traditional farming but you would have more control over the amount of sunlight, the insects that have access to your crops, and the chemicals that are used in your crops. Another thing is that

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you can make a hydroponic garden out of practically anything, old bottles, old planting pots, and much more. Another pro to in-house gardening is that you can create pots out of recycled materials and find different ways to promote healthier eating and lifestyle. It will be more costly but I think it is worth it to promote healthier eating and try to limit the overproduction of fruits and vegetables. You will be able to grow enough for you to provide for your family and others at food markets. As well as helping with deforestation within the country because of the overproduction of exports. The implementation of at-home gardening should be easier because you are reducing the amount of water usage. I would try to talk to whoever is in the position over exports, imports, or agriculture, to try to persuade them about changing their habits when it comes to industrialization and sustainable agriculture. It may be more costly but at home, gardening will be sustainable, allows crops to grow year-round, lessen the exposure to chemicals and cause more organic foods to be grown. For the Philippines, it will help them bring revenue during droughts or tropical storms because the weather will not be a factor as well as it is better for the ecosystem helping with one of my previous points about deforestation. When you have an overproduction of a product it can cause an issue within agriculture with droughts and soil depletion which is bad for the ecosystem. If the damage to the ecosystem continues you have any produce to sell, but if the Philippines implemented an in-house garden, you won't have the same issues you would have with traditional farming.

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Works Cited

Baringer, Sally E. "The Philippines." *Countries and Their Cultures*, edited by Carol R. Ember and Melvin Ember, vol. 3, New York, NY, Macmillan Reference USA, 2001, pp.

1768-83. *Gale in Context: World History*,

link.gale.com/apps/doc/CX3401700190/WHIC?u=bullischl&sid=bookmark-WHIC&xid=ab8cc7c6. Accessed 12 June 2022.

Country Watch.

www.countrywatch.com/intelligence/cwtopic?type=text&countryid=137&topic=MAOV

R. Accessed 5 June 2022.

Department of Agriculture.

mimaropa.da.gov.ph/eight-paradigms/industrialization-of-agriculture-is-the-key.

Accessed 15 June 2022.

Doing Business with The Philippines. www.philembassy.no/doing-business. Accessed 15 June 2022.

Hidden Costs of Industrial Agriculture. 11 July 2008,

www.ucsusa.org/resources/hidden-costs-industrial-agriculture. Accessed 15 June 2022.

Owen, Norman G. "Philippines." *History of World Trade since 1450*, edited by John J. Mccusker, vol. 2, Detroit, MI, Macmillan Reference USA, 2006, pp. 578-80. *Gale in Context: World History*,

link.gale.com/apps/doc/CX3447600324/WHIC?u=bullischl&sid=bookmark-WHIC&xid=436d78ad. Accessed 12 June 2022.

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Philippine Household.

www.arcgis.com/home/item.html?id=5e9a37f7a6734cac9e5c3ec0431e56f3. Accessed 15 June 2022.

Philippine Statistic Authority. "Urban-Rural Classifications." *Philippine Statistic Authority*, psa.gov.ph/tags/urban-rural-classification#:~:text=This%20means%20that%20of%20the,percent%20of%20the%20total%20population. Accessed 7 June 2022.

SEARCA. Sept. 2018,

www.searca.org/events/conferences/2nd-small-and-family-farmers-new-and-beginning-farmers-national-conference#:~:text=However%2C%20according%20to%20the%20latest,family%20farms%2C%20is%201.29%20hectares. Accessed 5 June 2022.

10 Things You Should Know about Industrial Farming.

www.unep.org/news-and-stories/story/10-things-you-should-know-about-industrial-farming. Accessed 15 June 2022.

Thought Co.

www.thoughtco.com/geography-of-the-philippines-1435646#:~:text=Geography%20and%20Climate%20of%20the%20Philippines&text=The%20climate%20of%20the%20Philippines,and%20soil%20and%20water%20pollution. Accessed 7 June 2022.

United States, Congress. *Fact Sheet Philippines.*

www.fao.org/3/ae946e/ae946e03.htm#:~:text=Crop%20Production&text=The%20Philippines%20major%20agricultural%20products,bananas%2C%20pineapples%2C%20and%20mangoes. Accessed 5 June 2022.

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Philippines, Industrialization

USDA.

www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/farming-and-farm-income/#:~:text=In%20the%20most%20recent%20survey,recorded%20in%20the%20early%201970s. Accessed 7 June 2022.

Federman, Posted by Sarah, et al. "Vertical Farming for the Future."

USDA, 25 Oct. 2021, www.usda.gov/media/blog/2018/08/14/vertical-farming-future.

Federman, Posted by Sarah, et al. "Vertical Farming for the Future."

USDA, 25 Oct. 2021, www.usda.gov/media/blog/2018/08/14/vertical-farming-future.