Problems With Air, Water And Land Pollution In Mexico

Mexico is a country known for its beautiful landscapes full of traditions and culture, where every city has a different story full of emotion, but even the most beautiful cities are starting to have issues to deal with. Even though most cities have been progressing with time and becoming more industrialized in their ways some cities were able to prioritize the environment before anything else. While other cities, mostly the capitals with the higher population are known for struggling to maintain a healthy environment. Mexico City is an example on how industrialized cities with a higher population struggle to take care of the environment while at the same time harming the citizens' health. There are various types of pollution such as air, water and land pollution that have been known for being the most hazardous to the community, especially since it is being generated by human activity and common technology used in our daily lives. Although the three kinds of pollution mentioned are a big issue to fix for the Mexican government, this paper is mostly going to talk about air pollution. Air pollution is something that has been lingering for a quite long time in these populated cities making their habitants suffer long-term diseases while also harming the environment decreasing the quality of air, compromising the government to get more involved to fix the issue. In an article wrote by Mayra Martinez published by 'The Economy Today' she states how air pollution started 20 years ago (Martinez). The author mentions how air pollution began roughly in the 1980's, when public transportation was being used less each year increasing the number of private vehicles used by the citizens which increases the amount of traffic-related emissions (Martinez). As a result, the government chose to apply a new method in Mexico City with a new program called "Hoy No Circula" which basically means you do not circulate today. The program consists of monitoring the vehicle by receiving a hologram in the vehicular verification to calculate the amount of emissions dispersed and check how old is the vehicle by reviewing the license plate. After the vehicle is monitored it is assigned a color which is assigned to a day of the week. One day a week a certain color is not allowed to drive to reduce the amount of emissions dispersed in the air affecting the ozone levels. If the citizens' drive while you are not supposed to, they will receive a ticket consisting of 20 days of minimum wage. Similar to this issue from 20 years ago in 2016 according to an article from 'NBC News' mentions how the government declared its first air pollution alert in over 11 years since the program was relaxed and not many citizens followed it. The government had to react to the issue by asking habitants to stay in their houses since the ozone levels were twice as high to the acceptable limit (NBC).

There are various studies that show how air pollution is affecting the citizens health. It has been shown through some statistics that air quality in Mexico is worse than most countries that surround it. A study shown by Numbeo mentions one specific city in Mexico named Piedras Negras where the Air Quality Index (AQI) is one of the highest throughout the world with 868, making it hazardous to live there (Numbeo). It states that everyone who lives in that city possibly experiences more serious mortal health effects. In 2016 it was published that Mexico City had the worst air pollution in over a decade with the government suggesting the citizens to stay home rather than to increase the air pollution by traffic-related emissions in order to avoid respiratory problems. Scientist Kyra Shields mentions how traffic-related emissions are extremely harmful to the citizens: "[E]xposure to traffic-related emissions has been associated with increased risk of cardiovascular morbidity and mortality, understanding the mechanisms by which traffic-related emissions can cause cardiovascular disease has significant public health

relevance” (Shields et al. 12). She mentions how air pollution can be a fatality for certain people while also harming the majority of the citizens. With a similar observation, scientist Maria Escamilla- Nunez mentions how children have a higher percentage of suffering from diseases that relate to the respiratory system.

In Mexico City as well as in other cities, several studies have documented the adverse effect on respiratory health, caused by exposure to air pollutants. This effect appears to be greater among asthmatic children, among whom increase in respiratory symptoms, acute decrease in lung function and an increase in emergency visits have been reported. In Mexico City, asthma exacerbation represents 7.8% of emergency room visits at the Hospital Infantil de Mexico 'Federico Gomez, the largest children's hospital in Mexico City (Escamilla et al. 2).Escamilla specifically mentions how exposure to air pollutants for example, the emissions created by traffic or industries is not only affecting the citizens health every day, but it affects children with long-term sicknesses such as asthma that can not be cured leading the citizens to death. With a similar research made by Minerva Catalan-Vazquez, she analyzed the relations established between air pollution and heart disease problems in teenagers in Mexico City. During the research, teenagers mentioned that they could feel their eyes burning and that was how they knew air pollution was high; some other symptoms were dry throats, lack of vision, and the smell of smoke (Catalan-Vazquez et al. 1). The results of the research were the following: “A total of 84.4% believed that Mexico City has a high, or very high air pollution; that valuation decreases as it approaches the most immediate place in which the students live. The health risks range from effects on respiratory health, 66.9%, to other effects on daily life, 2.2” (Catalan-Vazquez et al. 1). She concluded the research by arguing that these teenagers are experiencing a high amount of air pollution and suggested that focalizing components must be involved in environmental policies, in order to make environmental programs more effective at the local level (Catalan-Vazquez et al. 1).A study conducted made in 2017 by the Technological University of Monterrey mentions that air pollution not only affects the health of the citizens, but it also affects the economy of each city because it considers the spending of deaths, doctors’ appointments and hospitalizations. In addition, it was mentioned that the cities with the higher population are the ones that are being affected the most since the majority of people drive. As cities increase in population it also has to adapt by creating more industries to maintain steady jobs. The consequences of maintaining a high contaminated air in a country are numerous and it would take a long time to talk about all the problems and repercussions that come with it. As a matter of fact, air pollution also brings benefits to a country. For example, it makes the government get involved making them look better as a whole, as well as motivating the citizens to help the environment and make their city a healthier place to live in. The article written by Carlos De Icaza mentions that the practices of the environmental law are what should be done in Mexico. The author discusses prohibited activities that cause air pollution to increase, as well as permits, regulations, and penalties concerning air pollution in the country. An example of a prohibited activity: “The Secretariat of the Environment and Natural Resources also known as SEMARNAT can set out specific maximum limits for air emissions for sources that have certain facilities or processes which complicate their compliance with ordinary limits. Mobile sources must also comply with the levels issued for this purpose” (De Icaza). He explains how SEMARNAT basically has specific rules which have to be followed in order to obey environmental policies that the country has.Fortunately, the government has implemented innovative solutions to fix the issue of air pollution; an article written by Rafael Pacchiano Aleman talks about how the government has effectively fought against air pollution: “Last year, on the 30th anniversary of the Montreal Protocol, we reported the elimination of 99 percent of substances that damage the ozone layer.” He mentions how air pollution during the recent

presidents' term has been decreasing due to the approaches the government has taken against the issue. It was also mentioned that the recent government has been the most environmentalist in history, additionally, it also said that they will not stop fighting since the plan is to leave a healthier planet for the future generations (Aleman). It is their sole purpose at this time to make Mexico a safer place to live for its future and present citizens. In a study made by Alicia Corona, Elva and Rosa Rojas, it was indicated that the government indeed has helped reduce the amount of air pollution. Even though air pollution was reduced it is still harmful to the habitants of the main cities. "In particular, on the issue of air quality, even though this is the responsibility of the three levels of government, there is little or no coordination among the different agencies according to their priorities, objectives and work programs" (Corona et al.). With the government not being as active as the citizens thought they opt for an alternative solution. An example of an alternative solution is "The Via Verde" which translates to the green road. The purpose of this project is to plant approximate of 600 square meters of vertical gardens on 1000 highway columns in order to reduce the air pollution. It is meant to provide oxygen to more than 2500 people, filter gases, capture dust from the vehicles and process more than 10,000 kilograms of heavy metals (Gerard H). Although this alternative solution is a good intention to reduce the amount of air pollution, there have been some criticisms towards the project. For example, it does not engage with the citizens and does not decrease the car use. However, the main residents who benefit from this project would be the cyclists and pedestrians. Citizens were not engaged with the project since it does not benefit them, and it was also mentioned that the investment of the program is expensive; it could be used for better uses, such as the creation of real green spaces for a similar cost. The last criticism from the citizens was that 80 thousand people agreeing with the project are not enough for a city with 20 million inhabitants.An article wrote by Story Hinckley talks about different solutions Mexican scientists have to get rid of the air pollution. Lucas Davis, an energy researcher at UC Berkeley mentions that by preventing the citizens' from driving one day a week is not a solution to this problem since they would just switch over to public transportation. Davis suggests following Singapore's city-wide program where drivers are taxed for driving on major roads during heavy traffic hours (Davis qtd in Hinckley). With a similar approach, Dr. Hector Riveros agrees with Davis as how residents will switch to public transportation but suggests a different solution: "The only real solution here is to improve the fuel. If we do that the contaminants in the air would reduce between 30 and 50 percent. But the only real solution is people avoiding having to travel long distances to get to work" (Riveros qtd in Hinckley). Riveros explains that the only solution is to improve the fuel and travel less distance for work. This last statement would be hard to follow especially in the bigger cities of Mexico since it is not always an option to decide the place where you want to work.

In conclusion, we see that Mexico has had various problems with air, water and land pollution. This is the main reason that a lot of Mexican citizens are having health issues. Even though this hazardous pollution is being generated by the people and over usage of technology the government is trying to step in and find a solution to make the air, water and land pollution less harmful. Thank to the government during this past term the fight against pollution has been very successful, 99% of the substance the damages the ozone layer has been eliminated. Even though it has not been easy, the government has shown the citizens first-hand that they can and will keep them safe. There are still a bunch of issues that this country is facing regarding air pollution, but with the help of the government and alternative solutions; Mexico will once again be healthy country.