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## The Ugly Truth

The quality Italy is most known for is its beauty. This is how Italy got its nickname "Bel Paese," which translates to "The Beautiful Country" (50 Facts About Italy). However, the ugly truth is that Italy's air quality is killing thousands of citizens every year through lung-related diseases. In 2012 there were 613,520 deaths in Italy. Among those deaths, 33,538 were lung disease-related, which is the fourth highest cause of death in the country, it was also the second leading cause of death for men (Leading Causes of Death). Italy is in the midst of an air quality crisis that has yet to find a sustainable solution to improve living standards all around the country.

Italy runs on a parliamentary government system. By definition, a parliamentary government has its executive government power invested in a group, where the members of this group are responsible to the legislature (Parliamentary Government). The two main leaders are President Sergio Mattarella, the chief of state, and Prime Minister Giuseppe Conte, the head of government. They have been working hard over the years to decrease the amount of air pollution in a number of environmental agreements including "Air Pollution-Nitrogen Oxides," (Italy: Government).

President Sergio Mattarella and Prime Minister Giuseppe Conte are in charge of the beauties that lie within Italy. With vast plains, wonderful Mediterranean climate, and Europe's three active volcanoes (50 Facts About Italy), Italy is a unique, yet beautiful place to live, with its fun boot-like peninsula shape surrounded by the Mediterranean Sea which influences its Mediterranean climate (King et al.). With hot summers and mild, wet winters, life year-round is quite pleasant. It attracts tourists from all over the world (Italy Travel Tips). Italy's beauties are only part of the attraction. Tourists are not coming to Italy just for the pleasant weather, but also for the historical sites, some of which include the Leaning Tower of Pisa and the Colosseum. Some of the greatest historical sites to visit are Ostia Antica, Doge's Palace, and Herculaneum. Which all have a collection of historical artefacts and information (Historic Sites in Italy). Tourism produces a great deal of money for the economy but also encourages travel, which raises nitrogen-dioxide levels in the air.

As of 2000, 2.5% of the gross domestic product was from the farming industry. The average farm is around 27.5 acres and 44.01% of arable land is used for farming. "It is not self-sufficient in agricultural products, but enjoys its agricultural resources," (Italy-Agriculture). There are a total of 1.6 billion farms in Italy, which contains 12.7 million total hectares of land (Sawe). These

farms produce lots of waste in the harvest time. The government compensates these agriculture workers, but puts agriculture as the priority over many other important industries. This poor management of agricultural land and government priority is also contributing to the pollution problem (Italy-Agriculture).

Italy ranks fourth in the world, in best healthcare systems. Recent data from the 2020 coronavirus pandemic has placed them in fourth, from sixth place (Erica). Italy has a system called SSN(Servicio Sanitario Nazionale), which is a system that provides coverage to citizens and residents, that is mostly free of charge. Depending on which region each citizen resides, there are varying levels of quality in the healthcare facilities available to them. Also, private healthcare is also available for Italian citizens, which have excellent facilities, but are incredibly expensive (Allianz Care). Many healthcare facilities are frequently used to host those who are sick with lung-related diseases due to the polluted air.

Along with Italy's many beauties, it is home to over 60 million citizens (Italy Population). Normally there are around 2.58 people per family (Five Family Facts). Due to the poor economy, 65% of adults ages 18 to 34 lived with one or more of their parents (Globalist). It is not uncommon for up to three generations to live together in one household, or for immediate and extended family members to live together. Parents also often provide money for their child's living costs into their adult years so their children will stay close to them as they grow old. Also regarding old age, the elderly live close to their children or even with them unless it is absolutely necessary for them to go to an assisted living facility. The high value placed on family ties creates a beautiful sense of community but also creates another problem.

More and more families want to live close together in the cities and villages and produce an increasingly large amount of waste (Pier). There are many housing options in Italy, some of which include villages, condos, and lovely architectural buildings. Italian homes generally only contain the necessities, like a kitchen, bathrooms, and bedrooms. For that reason Italian homes are commonly smaller in size and are closer to other dwellings as well (Filippo). Although the average number of people per family seems small there is an increase in overcrowding. It is part of Italian culture to stay as close to family as possible, even in adulthood which encourages urban living. This increase in urban living creates an overcrowding problem that is producing a large amount of waste and contributing to the air pollution. The quality of life declines as air pollution escalates.

As a result of high rent costs, lack of opportunities, limited rental housing, and low levels of public welfare for younger people, around 44% of Italians between the ages of 25 and 35 live with their parents because they cannot support themselves without assistance. This also leads to women giving birth at older ages and decreasing the birth rate (United Nations). On a regular basis in many countries, including Italy, men are the main source of income, therefore, only around 48.8% of women in Italy are employed full time. Which means that they regularly stay home to tend to household chores, take care of their children, and cook (Redazione). The most common occupations, for both men and women, are office associate professionals, sales

workers, teaching professionals, and office clerks. A majority of adults ages 25 to 49 are employed, and make up approximately 51.2% of the workforce (Panorama). The top industries in Italy that a majority of these jobs fall under are tourism, agriculture, service, trade, and manufacturing (Sawe). Although not many of these jobs directly produce waste, their industries encourage transportation which produces a great deal of toxic emissions which contribute to the ever intensifying air pollution problem in Italy.

Education is very important to the Italian Government, which is why all children have access to free education. Children from ages six to sixteen are required to be enrolled in some type of schooling. Children have the opportunity to go to high-quality public schools, where they are taught a wide variety of skills, including speaking in both English and Italian. Higher education opportunities, like college, are optional. There are many incredible universities that are even accessible to foreign exchange programs and students (Education in Italy). Since education is so important in their culture, it can be used to educate the future generation on pollution issues and solutions.

Italy may be beautiful from the outside, but the effects of air pollution in the country are eroding the country's pleasing aesthetics. The climate has started changing due to the increasing toxins in the air. As air pollutants decrease life spans, they are also decreasing productivity and increasing hospital debts (Bressa). People are not going to work because they are sick, which leads to another obstacle. The air pollution is not only causing death, but creating an economic crisis.

Air pollution has been the cause of many deaths over the past few years and has become increasingly worse as time goes on. It can decrease lifespans by 10 months (Air Pollution Shortens Life) and the conditions are not changing sufficiently enough (Italy Highest Air Pollution in EU). The four main pollutants found in the heavily polluted air are sulfur dioxide, nitrogen dioxide, carbon monoxide, and trioxygen (Michelozzi, et al.). These pollutants come from a variety of sources including smoking, agriculture, domestic heating, traffic, and industrial companies. The largest amount of toxins come from the transport industry, which produces 46% of the toxic emissions (Bressa).

As overcrowding becomes a bigger issue due to the popularity of urban living, heavy amounts of traffic in urban areas produce great amounts of carbon monoxide into the air (Health Impact of Air Pollution).

Italy is working on making a positive impact on this pollution disaster (Smith). However, the positive impact they say is coming, is not being placed into action soon enough. Seven million people die each year because of air pollution around the world (Xuequan), and each year around 30,000 people die from the damaged air in Italy alone (Air Pollution Shortens Life). Italy needs to take some extreme measures to improve living. What they are currently doing is not enough to make much of a difference.

Italy was recently put on lockdown due to the coronavirus outbreak. They were greatly affected by the outbreak. At one time there were so many obituaries in a local newspaper they had to decrease the size of each one to fit them in the paper. Due to the many deaths caused by the pandemic they found a reliable contact-tracing solution (Donadio). The lockdown of the whole country created a decline in non-essential travel, a decrease in tourism, and a cease in industrial activities which has all led to cleaner air (Rosane). This may be quite the remarkable change, but it is not a permanent solution to Italy's pollution struggle. The lockdown will end and so will this brief moment of

cleanliness. Italy needs a permanent and sustainable solution that will continue to benefit its citizens throughout the years.

It was evident during the 2020 COVID-19 pandemic, that Italy does not do well at communicating and cooperating with international organizations (Donadio). Italy also has a history of independence and distrust of anyone other than its own people (Kind et al.). Therefore, any solution would need to be approved and accepted by the people and presented by the Italian community. The people, the community of Italy, would have to be onboard to create a solution to this problem, and if it benefits the whole community there is sure to be cooperation to some extent.

Some simple solutions could include taxing smoking devices and the use of nonrenewable energy sources. Smoking produces a large amount of the toxins. Smoking is both unhealthy for the person participating, but the people around them suffer the consequences as well. In this case, millions of people are suffering the consequences. Energy sources like wind power, solar energy, hydropower, and geothermal energy are all renewable. A rise in the use of renewable energy sources would decrease toxic emissions immensely (Black). Developing and implementing these energy sources can be costly. However, taxing non-renewable energy sources would provide money to effectively encourage less waste production. Putting a small tax on these pollutants would provide money to encourage healthy living and decrease toxic emissions.

Although those solutions would eliminate part of the problem, the best sustainable solution to improve Italy's air quality is to decrease transportation emissions. The transportation industry is responsible for almost half (46%) of the total emissions (Bressa). Cutting back on the use of transportation devices would reduce the toxins in the air and accordingly create better quality of life.

The first step is to drive less. One way to reduce driving is to plan little shopping trips for groceries, clothing, and other items into one trip. Even planning these trips ahead of time instead of driving around aimlessly can minimize waste. Doing this will save time, fuel, and physical energy. It is easier for the people and better for the environment. Small habits like

these can be easily adopted into the daily lives of Italy's citizens. If that is not enough, other alternatives include walking or biking places instead of driving and looking into more fuel-efficient vehicles when looking to buy a new car. Healthy living is a simple step in contributing to the improvement in Italy's air quality. This solution would require a community-wide, industry-driven, government-supported campaign that would both educate and encourage citizens on producing less waste. This campaign would educate citizens on the risks of unnecessary travel and benefits of alternative types of travel as well as better planning for travel.

Another wonderful solution to decrease transportation emissions is by sharing rides. Sharing rides instead of driving multiple cars to the same place will decrease the amounts of gas used and therefore dwindle toxic emissions. An example of this idea in action in the United States is in Minnesota, where they have a lane for ride-sharing (Motor Vehicle Pollution). When people share rides then they get to use this lane. It allows them to get through traffic quicker and it is a practical

reward for producing less waste. If this were implemented in Italy it could encourage drivers to share rides, which strengthens community, and consequently produces less toxins. The plan is simple and effective. This lane will encourage building friendships with coworkers and neighbors, it will decrease the amount of nitrogen-dioxide being produced, and will accordingly bring down pollution rates immensely. Current lanes can be repurposed into ride-share lanes by simply using paint and signage. Italy already values community in its culture and this ride-share lane would continue to support and encourage that value. The funding for this ride-sharing lane could come from taxes already put in place by the government. Money used for this project could come from these taxes (Figueroa). This plan would need to be approved by government officials. The plan for how this will benefit the country would need to be presented to these officials and would further convince them to help fund this project. If they choose not to fund the project but will allow the construction to happen a website can be made and have a donation center. All that would need to be done is to promote the website over social media where people from around the world will see it and want to join the fight against pollution. It would produce the best reaction from the public and government if a resident or citizen of Italy presented this idea or even led this solution. The community would be more open to this solution if it came from someone in their community.

Italy is in the midst of an air quality crisis that has yet to find a sustainable solution to improve living standards all around the country. However, the solution to Italy's problem can be found in many, small, simple tasks that together promote healthy living and encourage an immense decrease in transportation emissions.

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