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Chinas Pollution Problems and Control Methods

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Nowadays, pollution becomes a common issue. In China, the air pollution is the most prominent and dangerous problem that influence our study and life. It occurs due to many reasons like excessive burning of fuel for cooking, transportation and other industrial activities. In physics, the air is not limited to the gas molecules of nitrogen, oxygen, and argon because dry air contains 78.09% nitrogen, 20.95% oxygen, 0.93% argon, 0.04% carbon dioxide, and others are small amounts of gases. The burning of fossil fuels, additions in the form of carbon dioxide molecules —also known as particle pollutants—have entered the atmosphere as well. However, they are hurtful to our body and lead to different disease. (1) Therefore, what we should do? How could we protect ourselves away from pollution?

Firstly, there are 3 billion of poor people in the world still using inefficient stoves which are solid fuels (wood, animal dung, crop wastes and coal) for cooking and heating. Big amount of health- damaging particulate matter and climate warming pollutants (e.g. black carbon) are released into the environment, increasing the risk of everyone's illnesses, such as chronic obstructive pulmonary disease, cardiovascular diseases, and lung cancers. (2) In these years, China suggests residents using clean resource of energy — natural gas and hydropower. Based on scientists research, if we switch to gas from coal, it will use high efficiency, low capital cost, combined cycle gas turbine (CCGT) technology, resulting in lower carbon emissions per kWh of electricity generated. (3) Some data analysis shows that CO2 emission from burning coal is 1.6 times that from natural gas and 1.2 times that from oil. However, if China which is the largest country on producing and consuming coal changes their way to the substitution—hydropower, nuclear energy and renewables, pollutants and CO2 emission will be reduced! (4)

Secondly, transportation always plays such a significant role in carbon dioxide (CO2) emissions that in China. This number is almost doubled from 2002 to 2007 while GDP growth, which means cars are affordable to the majority of people. There is an obvious phenomenon in my past 18 years, China became a "car country" from a "bike country". In average, every Chinese family has two cars in today's society. Since China is a developing country with a huge population, its environment really influences the whole world. Therefore, China develops a traffic restrictions based on even- and odd-numbered license plates. BBC news reported this issue, "Beijing as the capital of China first announced this policy to control worsening air pollution. They include taking half of the city's four million private cars off the roads on days when there are serious levels of pollution. The system will be based on people's vehicle licence plate - odd numbers will be allowed on the roads one day, even numbers the next." (5) It leads a slowdown in the massive roadway investment in recent years and a shift in emphasis to expanding and improving public transport, cycling, and walking facilities. Now, more and more cities joined in this policy. While in some less developed cities, continued growth in motor vehicle use is inevitable. Some scientists and politician suggests that China should restrict motor vehicle use in congested city centers and increase taxes, fees, and other charges to reflect the enormous social and environmental costs of motor vehicle use. What we want to do is just producing cleaner, more energy-efficient and renewable energy source, so we can create a better environment. (6)

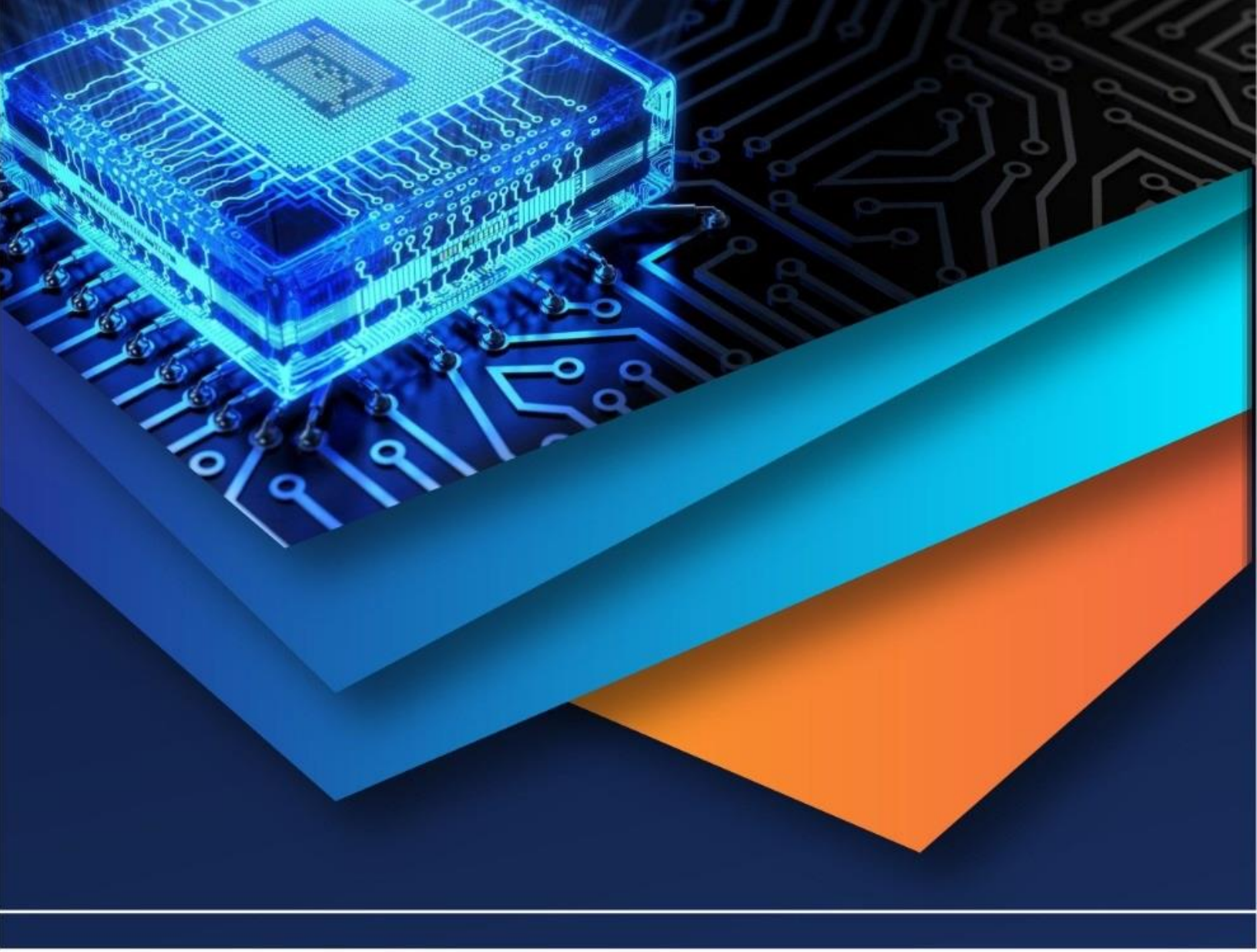
At last, industrial activities are another vital cause of air pollution, since the development of factories and agricultural technology results in the emission of pollutants, such as sulfur dioxide (SO2) and nitrogen oxides (NOX). Every country faces this serious problem which is over- operation. In 2008, The New York Times pointed out that the inhabitants of the world consume resources like oil and heavy metals at a rate almost 32 times greater than the past decade. Based on our textbook, the conservation of mass principle and the first law of thermodynamics (i.e., conservation of energy) show that whenever material resources or energy are moved around or manipulated by technology, environmental consequences are almost inescapable. China is affected by this problem as well and what does it do? The latest plan emphasizes to close the outdated capacity of the industrial sectors like iron, aluminum and cement and increasing nuclear capacity and other non-fossil fuel energy. It also includes a goal to stop approving new thermal power plants and to cut coal consumption in industrial areas. (7)

When I search the information about my essay, there is a thing that make me feel so sad that in wikipedia there is a big title and separate topic called pollution in China. It indicates that how serious environmental problem in my country! The reason why I decide to write this topic is I want to find the reason and the solution to help my country keep environmentally friendly. In conclusion, this decade China's government paid more attention on pollution and develop some policies to control human's activities in cooking, driving and industrializing. As a citizen, what we should do is starting with us. Use less coal to cook and use more public transportation to go somewhere! Let us begin today!

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