The Impact of Air Pollution on Tropical Storm Intensification

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The problem of intensifying tropical storms is not one that can be solved without looking at the source of the issue, air pollution and global warming. Many different groups, from researchers and politicians, to non-governmental organizations, have offered solutions to this problem. Three emerging solutions that have achieved a lot of attention are: the use of Sulphur Dioxides to reflect more light back into space, the ending of the petrochemical industry, and the implementation of a carbon tax.

One solution proposed by researchers is the dispersion of sulfate particles into the sky to mitigate global warming by reflecting sunlight back into space (Govindasamy, 2014; Grasso, 2019). Researchers propose this for two simple reasons: it is cheap and fast acting. That said, researchers also acknowledges its many shortcomings. Govindasamy mentions the potential ecological harm from acid rain, ozone depletion, and the unknown impact from the scattering of light that it would cause (Govindasamy, 2014). Grasso looked at many different factors and concluded that the biggest issues lie in political will and its potential abuse (Grasso, 2019). Govindasamy concluded that it could cause ecological harm and geopolitical harm (Govindasmy, 2014). Grasso proposed some actions to minimize the issues he saw such as transparency and active citizen participation in the implementation of this technology (Grasso, 2019). In summary, this solution could work as a long-term solution for global warming, but at great risk to the environment. If this solution were to be implemented, it should only be implemented as a short-term solution to extend the deadline for a proper solution to global warming. The authors of the editorial and research article both gave fair judgements to the great risks that come along with the implementation of this solution. Govindasamy’s editorial has a negative tone on the subject as the risks are great, while Grasso’s research article has a neutral tone. The authors of the writings appeal to authority as they themselves are an authority on the subject.

Dispersing particles into the sky is not the only potential solution to global warming; the ending of the petrochemical industry is another potential solution. Schleeter (2019) claimed that we must end the exportation of fossil fuels to prevent the burning of fossil fuels abroad. Schleeter proposed that this solution should be implemented by the president during their first day in office via executive order (Schleeter, 2019). The solution could work, but only if implemented globally by many international powers. The aid of foreign powers would be necessary as the United States would not be able to force the major powers to adopt such policies. The article appears more like a rant than a fully logical argument and does not consider other nations not joining the United States and filling the hole left by the US. Schleeter relies on an appeal to emotion to excite people into action, this can be seen when politicians are named at the end of the article for having weak, policies to get the reader to take action.

A more realistic solution to global warming is the implementation of a carbon tax. This is generally a tax on the emission of carbon dioxide. As seen in a news article by Plumer and Popovich (2019), this technology has been implemented in many countries and in some territories and states in the United States and China. Plumer and Popovich (2019) talk about how the tax exists in many different countries and talks about how it works or why it does not. The tax can work as seen in Canada and Britain, with the only major issues being social and political will as seen in Australia. The article has a very even-handed tone on the topic as it gives ample space to show how it works and how it fails by giving examples of both rather than only showing one side. The article chooses to put both sides on equal footing and allow the reader to develop their own stance on the subject.

All the solutions have the same fundamental problem of social and political will; however, these problems are likely to plague almost any solution for an issue as large as global warming. The problem of stopping the intensifying of tropic storms is much greater than fixing one issue, as it is only a branch on the much larger issue of global warming. At least should global warming not get solved in a reasonable timeframe, there is still the final lifeline of pumping sulfates into the skies.

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