Feed the Farmer

By Faiz Siddiqui

A farmer, a seemingly ordinary yet rather byzantine term, is defined as an individual who cultivates crops or raises livestock. However, a farmer's responsibilities comprise far more than that. In 2014, a flagship report from the Food and Agriculture Organization of the United Nations found that farms generate roughly 80% of the world's food. Despite societal disesteem toward farmers, they are crucial for the functionality of mankind.

In modern times, climate change has been plaguing farmers just as it has affected other aspects of life on Earth. The unpredictability in weather patterns and temperatures, caused by the burning of fossil fuels, has had adverse effects on the productivity of farmers. It has resulted in increased expenditure for farmers who must indemnify against lower yields and crop failures. This increase in cost is injurious to farmers in numerous countries and further diminishes their ability to afford basic human necessities like sustenance, education, and shelter. An example of this is seen quite often in India, where farmers are forced into taking large loans to compensate for the money they spend on effects caused by climate change. Consequently, according to Gunisha Kaur of CNN, "Nearly 30 people in the farming sector die by suicide daily." This statistic is from India alone and shows the harrowing impacts of climate change. The situation is so dire that a term has been created to coin this phenomenon called, "seed suicides."

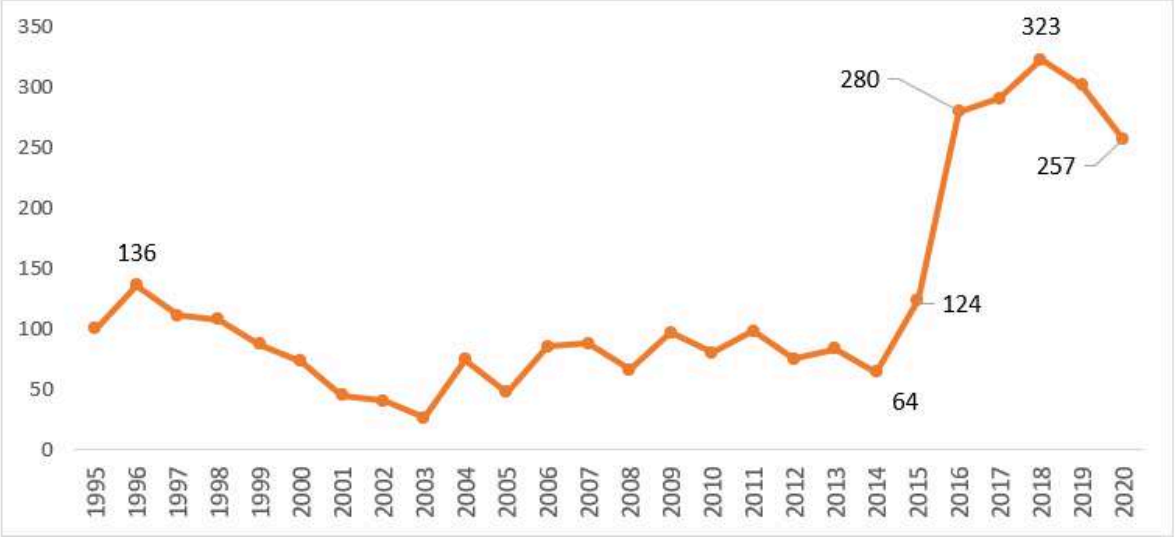

Image 1: Graph 1 - Displaying the Number of Suicides By Farmers Yearly (https://www.theindiaforum.in/article/spike-farmer-suicides-punjab)

This graph indicates the progression of farmer suicides through the span of 25 years in the Punjab region of India. However, there has been a decrease in the year 2020. This can be attributed to COVID-19, as it stalled human activity and, thus, the trajectory of climate change was impeded. Further, this graph demonstrates how as years pass, a greater number of farmers commit suicide. As the twenty-first century has continued, climate change's effects have exacerbated. This is seen in the surface temperature in India in the last 25 years, which displays similar characteristics to the previous graph. Thus, correlating climate change's rampant effects to the number of farmer suicides.

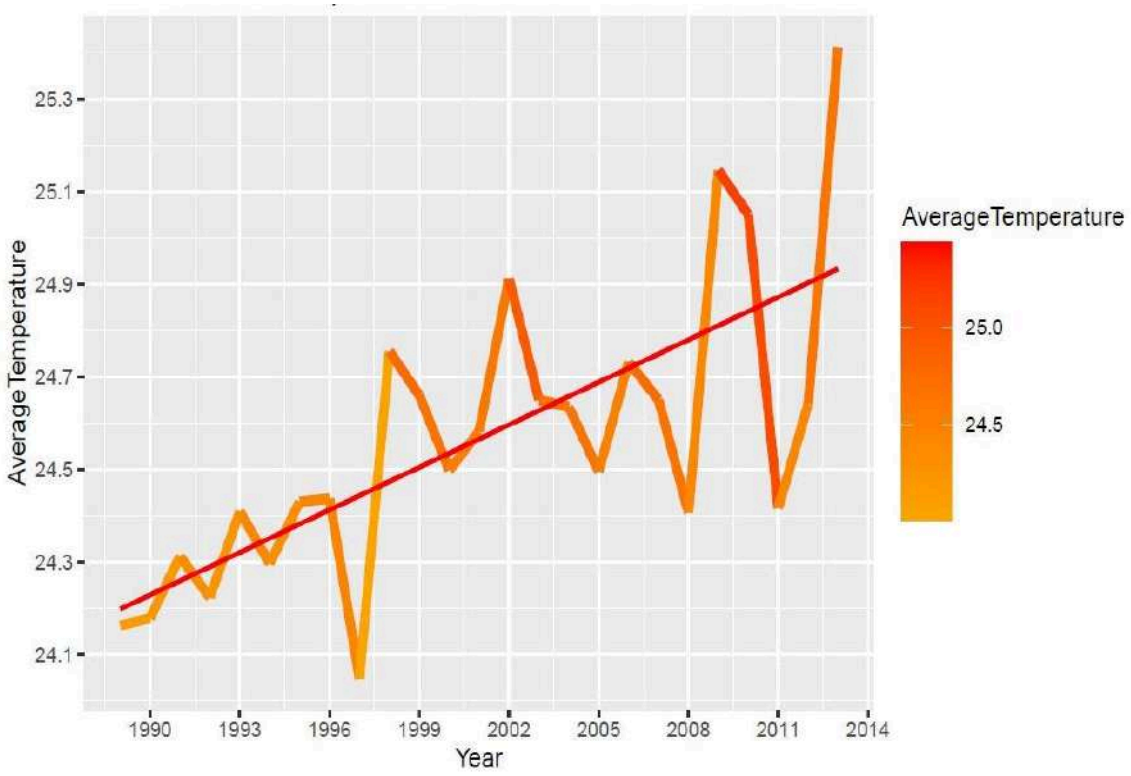

Image 2: Graph 2 - Displaying the Surface Temperature of India Yearly (https://medium.com/beginner-at-bi-data-science-and-big-data/climate-change-data-analysis-part-1-global-warming-in-india-3595d1e45fc8)

With the distinguished emergence of artificial intelligence, contemporary issues that affect farmers like climate change can be combated. Currently, climatologists analyze data related to global warming like greenhouse gas measurements, atmospheric temperatures, and ice masses. However, artificial intelligence can be implemented to gather vast amounts of this data and more accurately predict current and future environmental indexes. Moreover, artificial intelligence can provide a more efficient means of distinguishing patterns. Thus, society could have a more precise prediction of not only specific environmental indexes but also governmental regulations that could be issued. Similarly, machine learning algorithms could potentially refine modern energy consumption, reduce public waste, and maximize the effectiveness of processes like the Carbon Capture and Storage (CCS). The boundless and incalculable possibilities that artificial intelligence offers allow a never-ending number of ways that it can solve contemporary issues.

Ultimately, if the sheer power of artificial intelligence was harnessed for the greater good, minuscule problems that stem from generational problems could be put to a stop. As seen in this essay, the use of artificial intelligence to assist society on a larger scale could prevent thousands of innocent lives from being taken on a smaller scale. Just as farmer suicide is one of the side effects arising from climate change, there are a plethora of other effects that are caused by this issue. Essentially this means that climate change is the crux of several resounding problems in society today and that we, as humans, must do all we can to prevent this grave issue.

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