Investigating the Relationship Between Climate Change Indicators and Agriculture and Economic Development
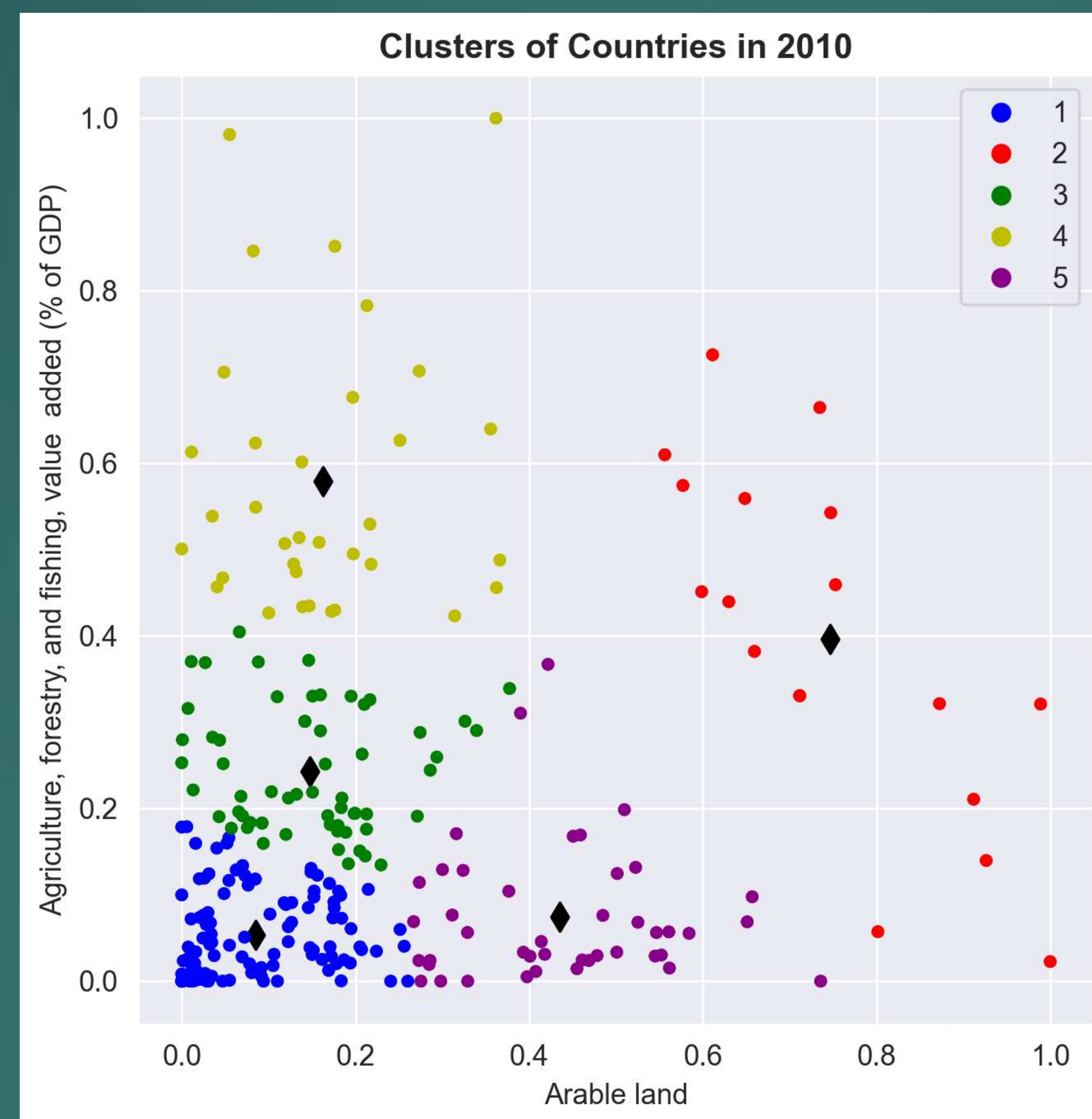## By Gobu Chettiakulam Babu

Introduction
Agriculture and the economy are both crucial sectors that are vulnerable to the impacts of climate change. This poster presents an analysis of these indicators for various countries, using clustering and fitting methods to identify patterns and trends. These findings to understand how climate change is affecting different countries.

Abstract
This poster presents an analysis of the relationship between the percentage of arable land and Agriculture, forestry, and fishing value added as a percentage of GDP for different countries. Clustering and fitting techniques were used to analyze the data. Our findings shed light on the relationship between these indicators and how this relationship can be used for understanding the interplay between climate change, agriculture, and the economy across different countries.

The graph shows clusters of countries grouped from data of the percentage of Arable land and Agriculture, forestry, and fishing, value added (% of GDP). It was found using silhouette scores that the data could be optimally clustered into 5 groups. Note that this is only from the data of the year 2010, which was randomly chosen. Each cluster is set of countries with similar ratio of the two indicators I chose.
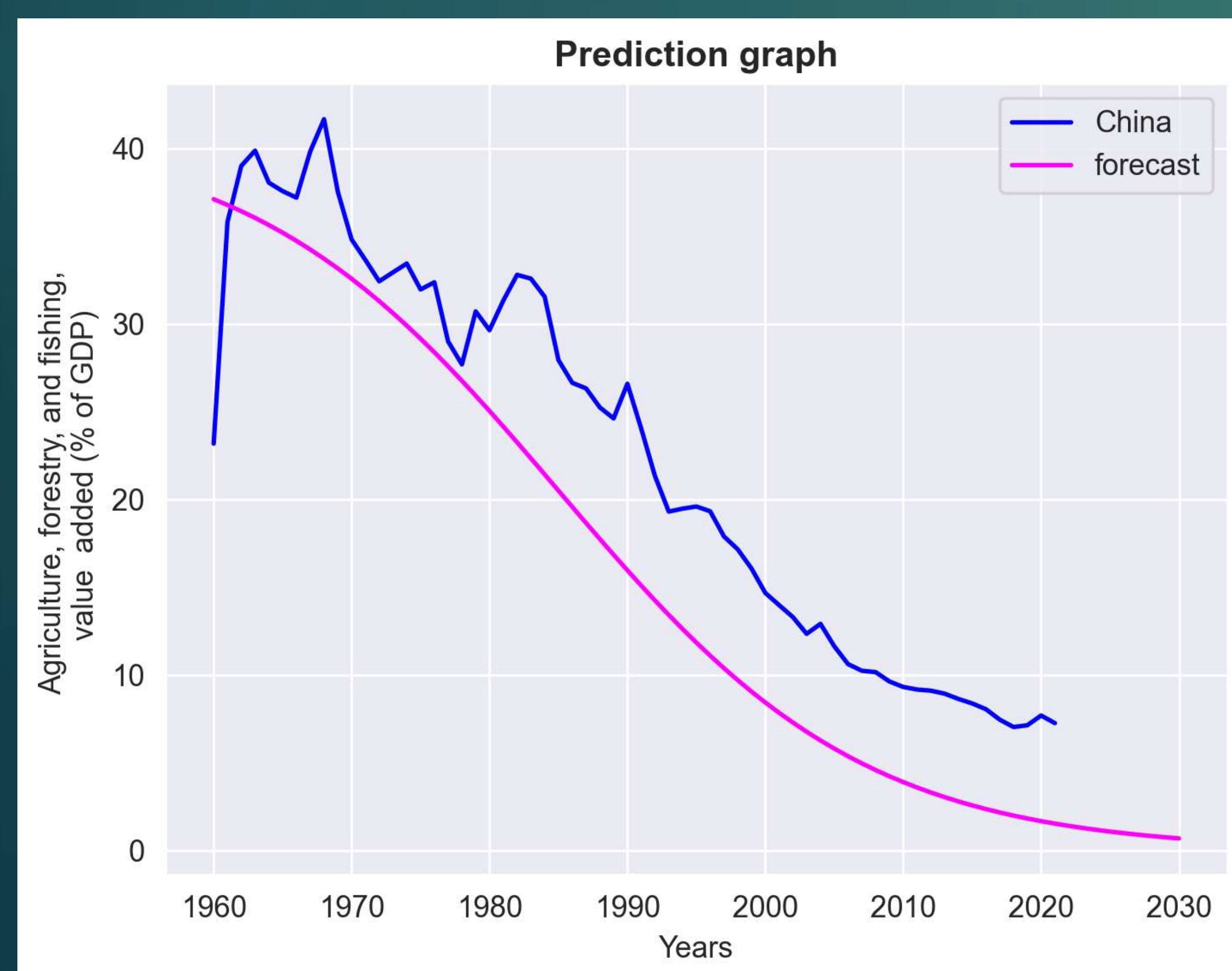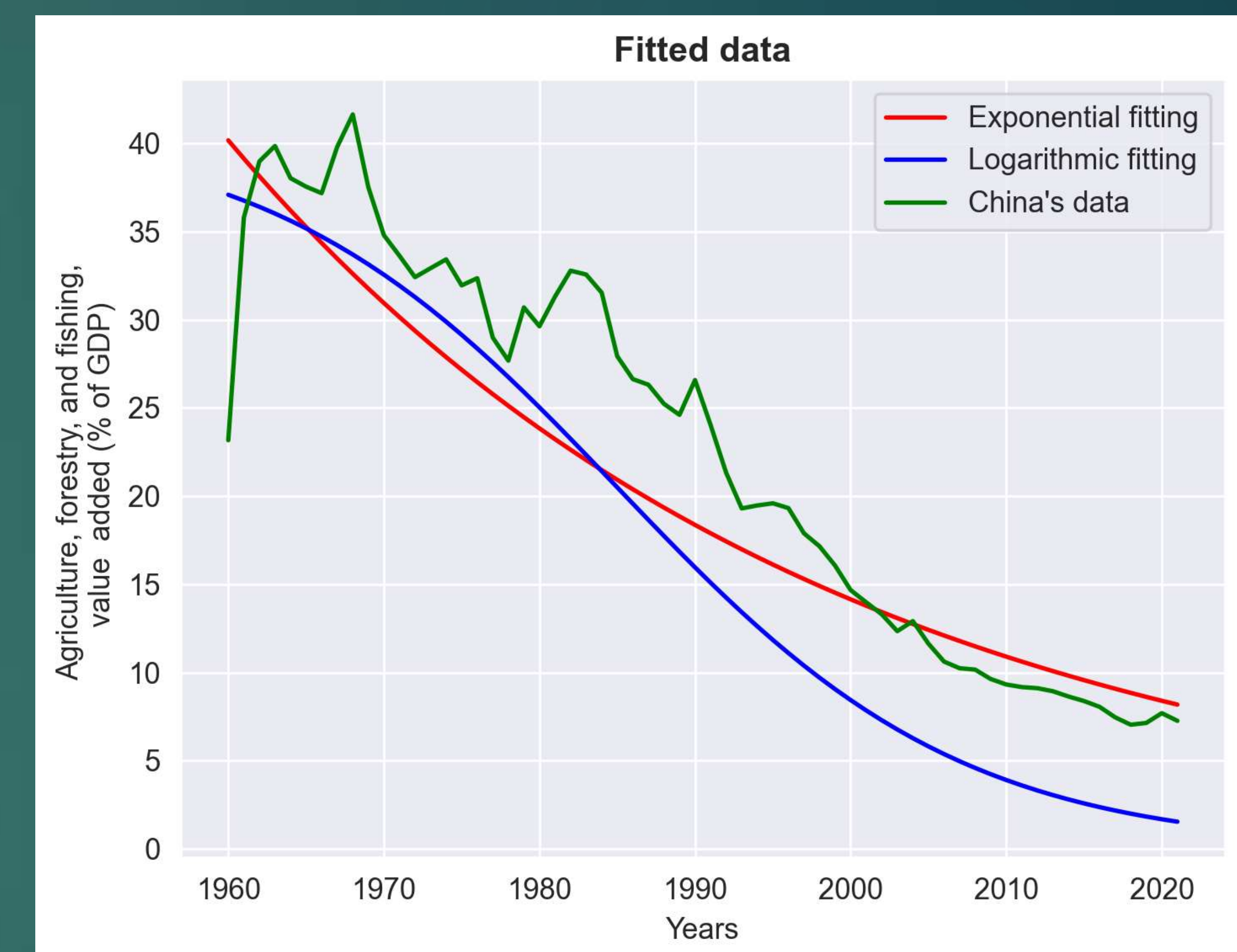
China's Agriculture, forestry, and fishing, value added (% of GDP) over the years was taken and fit into suitable functions, namely exponential and logarithmic functions in the graph on right. This enables us to make predictions as seen in the graph on left.

Conclusion
Our analysis tells us that the percentage of arable land and Agriculture, forestry, and fishing, value added (% of GDP) are not necessarily correlated, which is why we were able to cluster them into groups so well. Furthermore, we were able to predict how China's Agriculture, forestry, and fishing, value added (% of GDP) in the coming years could be the lowest so far. These findings not only helped us explore the relationship between these climate change indicators and agriculture and economic development but could also inform policies and strategies that promote sustainable development in the face of climate change.