Is there a link between Air Pollution and Economic Growth?

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Abstract— As the reality of global warming becomes more severe on our environment, policy responses to reduce carbon emission have been created, debated and even deployed in some areas. Although Africans are not directly responsible for the severity of the climate change today, it has become necessary for the continent to join the campaign to save the planet from global warming. It has been debated that these new environmental policies may slowdown economic prosperity in developing nations. However, there is insufficient empirical evidence to back this assertion. The objective of this study is to investigate the relationship between air pollution and economic growth in Nigeria. Secondary data was obtained predominantly from World Bank World Development Indicators. An IBM Watson Analytics approach was used in analyzing the data. The result showed that air pollution variables had both negative and positive influence on the economy. A smart city framework was developed to guide measurement and analysis of air pollution data for informed decision making. The paper recommends that air quality sensors be deployed to all possible pollution generation machineries for real time data generation, analysis and policy response to control pollution.

Keywords-air pollution, economic growth, climate change, smart city, IoT, IBM Watson