Explain the interrelationship between economic activity and climate change.

Economic activity is that activity which is related to the use of scarce resources for the satisfaction of human wants. It may or may not generate income. On the other hand, climate change indicates the environmental conditions of the earth.

Climate change is one of the greatest threats to economic stability. Nicholas Stern, World Bank's former Chief Economist confirmed that greenhouse gas emissions is the biggest mistake that the world market has ever seen. There is a warning from the World Bank that if we don't do something immediately, climate change could push 100 million more people into poverty by 2030.

An extant source of literature has proved the interrelation between economic activity and climate change, which are discussed as follows:

i) There exists endogeneity due to the potential bi-directional causality between climate change and the economy: Some studies point out the economic impact of climate change under a climate influenced by human activity. For example, agriculture is highly exposed to climate change because its activities directly depend on climatic conditions and, simultaneously, agriculture contributes to climate change through GHG emissions.

ii) Non-linear relationships appear in the Environmental Kuznets Curve (EKC), which postulates that the relationship between economic growth and environmental degradation follows an inverted U curve. Grossman and Krueger also concludes that there is an increase of environmental degradation and pollution in early stages of economic growth, but, beyond some level of income per capita, this relationship reverses with additional income growth leading to environmental improvement. When the economy is mainly devoted to the agricultural activity, the environmental quality is higher than when it is mainly driven by industrial production, while when the service sector starts its development, then the environmental quality improves.

iii) Heat waves make us less able to work and decline our efficiency or productivity level. Natural calamities such as hurricanes, typhoons, and cyclones devastate millions of people thereby leaving them in abject poverty after mercilessly sweeping away their communities.

iv) Droughts shrink harvests and reduce agricultural productivity, further making difficulties in the laborious task of feeding the world population which is expected to reach 10 billion by 2050.

v) Agricultural yields are very sensitive to weather conditions and as our climate becomes even more extreme, more frequent droughts may decline crop productivity in areas where food production is of great significance.

vi) Associated with industrial activity and growth, the global economy could lose 10% of its total economic value by 2050 due to climate change. The impact of climate change has been predicted to be the toughest hit for Asian economies, with a 5.5% hit to GDP in the best-case situation and 26.5 % hit in severe situations.

vii) The impact of climate change across the globe will act as a stumbling block to the bottom line of trade and commerce in many ways. Both intensity as well as frequency of extreme weather conditions can destroy industries, value-added processes, supply chain processes and other infrastructure.

viii) Climate instability may force businesses to tackle uncertain situations in the price of resources for output, insurance, and energy transport. Accordingly, we may see some goods turning out-dated or losing their market.