



A Comparative Study of Anthropogenic Carbon Dioxide Emissions and Climate Change in BRICS Countries

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Background

- Climate change has emerged as one of the major threat to the world. Among the other greenhouse gases, carbon dioxide (CO₂) emissions are at record levels.
- Brazil, Russian Federation, India, China and South Africa (BRICS) have been drawing attention due to the pollution emissions released into the atmosphere by their increasing number of industries and consumption levels.
- However, BRICS are a heterogeneous group of countries – different from each other in terms of size of economy, size of population, level of technical development, social setup and geographical location. Hence these countries are differently responsible for CO₂ emissions in the atmosphere.

Study Area

BRICS Countries – Brazil, Russian Federation, India, China and South Africa.



Objectives of the Study

- to find out and compare various anthropogenic sources of CO₂ emissions in Brazil, Russian Federation, India, China and South Africa from 1992 to 2017.
- to compare the environmental and socio-economic impacts of CO₂ emissions and climate change in BRICS countries from 1992 to 2017.
- to comparatively analyse BRICS's level of vulnerability to climate change for the entire study period.
- to assess the comparative stance of BRICS countries in UNFCCC, from Rio Summit 1992 to Bonn Summit 2017 with a special focus on Russia.
- to offer suitable adaptation and mitigation strategies to reduce anthropogenic CO₂ emissions.

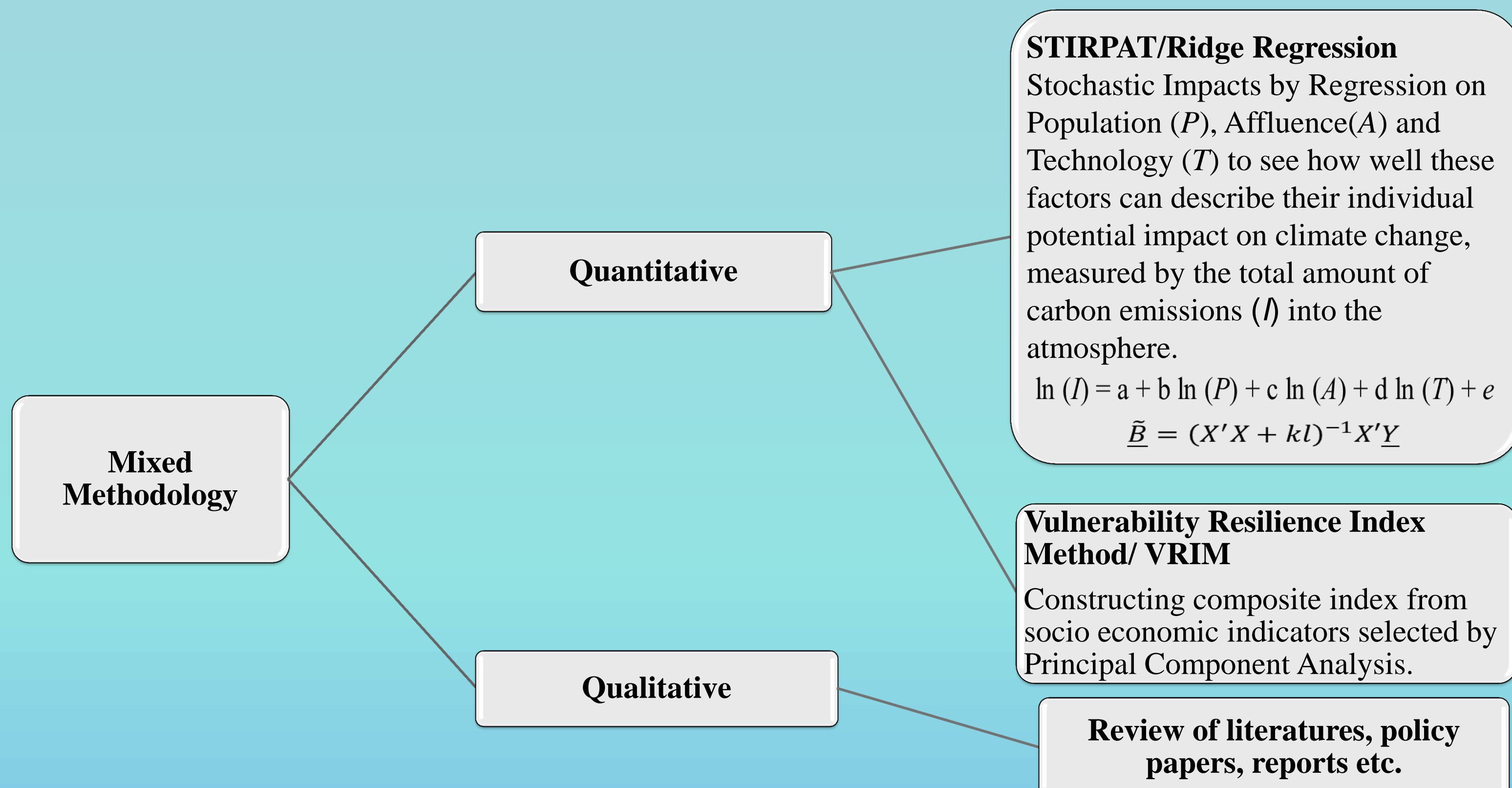
Scope of the Study

- It intends to focus on CO₂ emissions and climate change issues with special reference to Brazil, Russian Federation, India, China and South Africa (BRICS).
- While urgent action is needed across the world, these five most Emerging Economies of the World, will have a huge direct impact on global emissions.
- If these countries can get sustainable development right at their individual level, they could pave the way for global sustainability.

Rationale of the Study

- Studies have been done on BRICS group from socio-economic and ecological point of view.
- However, comparative study among BRICS countries on environmental perspective are rare or limited by the measurement methods (omission of important variable, focus on a single country, short period of study etc.).
- There is no systematic time series investigation so far analysing the relationship between environmental impact, population, affluence, and technology among BRICS.
- This research seeks to fill the gap in the literature

Softwares used for the Study



Recommendations

- Carbon sequestration, especially sustainable development and restoration of the oceanic ecosystem.
- Adoption of Carbon Diet/ Renewable Sources of Energy.
- Implementation of Feed-in Tariff.
- Imposition of Carbon Tax.
- Strong political will and climate conscious urgent actions.

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