

# Global Development and Climate Change: A Game Theory Approach

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Chapter

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## Abstract

The increasing concern with climate change is one of the main issues of our time, and thus we aim to theoretically and mathematically analyse its causes. However our approach follows a different stream of thought, presenting the reasoning and decision-making processes between technical and moral solutions. We have resorted to game theory models in order to demonstrate cooperative and non-cooperative scenarios, ranging from the traditional to the evolutionary within game theory. In doing so we are able to glimpse the development of modern society and a paradigm shift regarding human control over nature and to what extent it is harmful to the sustainability of our environment and the survival of future generations. Merging different fields of knowledge, we present a theoretical-philosophical approach, combined with empirical-mathematical solutions taking into account the agent-based behaviour guided blindly by instrumental rationality.

## Keywords

Evolutionary game theory   Global development   Game theory

Moral and technical solutions   International relations and politics   Economics

Sustainable development

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