



# Global Development and Climate Change: A Game Theory Approach

Climate Change and Global Development pp 17-35

| Cite as

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Chapter

First Online: 09 May 2019

Part of the Contributions to Economics book series  
(CE)

## 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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The chapter is inspired by a previous paper by Ingo Andrade de Oliveira and Stephânie Rycken. We would also like to thank the extremely constructive comments and suggestions from an anonymous reviewer.



JEL Codes

C70 D70 F64 O13 O19

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**Cite this chapter as:**

Caleiro A.B., de Sousa M.R., de Oliveira I.A. (2019) Global Development and Climate Change: A Game Theory Approach. In: Sequeira T., Reis L. (eds) Climate Change and Global Development. Contributions to Economics. Springer, Cham

**First Online**

09 May 2019

**DOI**

[https://doi.org/10.1007/978-3-030-02662-2\\_2](https://doi.org/10.1007/978-3-030-02662-2_2)

**Publisher Name**

Springer, Cham

**Print ISBN**

978-3-030-02661-5

**Online ISBN**

978-3-030-02662-2

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