BUCHAREST UNIVERSITY OF ECONOMIC STUDIES

The Council for Doctoral Studies

Doctoral School of International Business and Economics

INNOVATIVE METHODS AND TECHNIQUES FOR CLIMATE RISK MANAGEMENT

Andra-Nicoleta MECU

Scientific coordinator: Prof. univ. dr. Gheorghe HURDUZEU

Bucharest, 2024

TABLE OF CONTENT

SUMMARY

The study offers a thorough examination of climate risk management, charting its development from global regulations to the incorporation of cutting-edge technology and environmentally friendly financing.

The first chapter explores the evolution of global climate change policy throughout history, emphasizing significant accords such as the Paris Agreement, Kyoto Protocol, and UNFCCC. With a focus on the European Union's leadership in global climate policy, it charts the development of climate risk management from early ad hoc initiatives to integrated policies.

The European Union's approach to managing climate risk is covered in Chapter 2, with special attention to the European Green Deal and other legislative initiatives that lower emissions and advance sustainability. It assesses these policies' efficacy and looks at environmental liabilities and how they affect the way policies are implemented.

The third chapter delves at novel approaches to managing climate risk, including blockchain technology, smart insurance, and climate modeling. It also covers how to increase resistance to the effects of climate change through the use of robots, artificial intelligence, and precision agriculture.

The topic of green finance is covered in Chapter 4, with a focus on the function of green bonds in promoting sustainable development. The chapter examines the development and effects of the green bond market in Romania and the European Union, emphasizing how these markets help finance projects that promote climate change. Along with evaluating the long-term impacts of economic and environmental regulations on the green finance industry, it also contains an empirical investigation of the interdependencies between the global capital markets and green financial markets.

Keywords: climate change, green finance, sustainable development, climate risks, sustainability.