

**DOCTORAL THESIS INFORMATION WITH NEW SCIENTIFIC
CONTRIBUTION, THEORETICAL STUDY**

1. Dissertation title: Research and evaluation of losses and damages of mangrove ecosystems in Mui Ca Mau National Park related to climate change

Code: 9440221

Major: Climate Change

2. PhD Candidate: Nguyen Thi Ngoc Anh

Advisors: Ph.D. Nguyen Trung Thang, Ph.D. Do Nam Thang

Training Institution: Viet Nam Institute of Meteorology, Hydrology, and Climate Change.

3. Introduction to the Dissertation:

Mangroves and ecosystems Coastal areas play a great role in economy, ecology and environment, have important functions for the population community such as: providing food, foodstuffs and medicinal herbs; coastal protection, windbreak, wave break; improve coastal water quality; carbon storage; is the habitat of wild animals; is an educational, research and entertainment environment. However, according to the recent Intergovernmental Panel on Climate Change (IPCC) forecast, due to the impacts of climate change, mangrove forests along the coast are predicted to decrease in area and function., growth ability.

With a coastline of more than 3200 km, Vietnam has a fairly rich mangrove ecosystem, with an area of about 150,000 hectares, of which the Mekong Delta is home to the largest mangrove area (accounting for 78%). Climate change is forecasted to have strong impacts on the Mekong and Red River Deltas, coastal areas and forest ecosystems throughout the country. In particular, Ca Mau Cape National Park is the only biosphere reserve in the world where mangrove landscapes remain, playing an important role in the conservation of the national ecosystem. However, the impact of climate change in recent years has changed many natural laws of this coastal land, affecting the biodiversity of the National Park and directly affecting the life of this coastal area. , production and daily life of hundreds of thousands of households in the area.

Around the world, the issue of loss and damage related to climate change was negotiated at the Conferences of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) from 2007 to 2015. now. The Paris Agreement on Climate Change (2015) also mentioned the importance of preventing, minimizing and addressing losses and damages related to adverse impacts of climate change, including extreme weather events. Sudden events,

slow on-set events and the role of sustainable development in reducing the risk of loss and damage.

In Vietnam, the loss and damage to mangrove ecosystems related to climate change has not had many studies to measure and evaluate. Stemming from this practice, the thesis "*Research and evaluation of losses and damages of mangrove ecosystems in Mui Ca Mau National Park related to climate change*" was carried out with the desire to provide a basis for science for managers and experts to identify and identify climate change-related damages to mangrove ecosystems; develop solutions to reduce, manage and conserve mangroves in the context of climate change in the area of Ca Mau Cape National Park.

In addition to the Introduction, Conclusion and Recommendations, the thesis consists of Chapters with the following main contents:

Chapter 1. Overview of assessment of loss and damage to mangrove ecosystems related to climate change

Chapter 2. Approach and methodology to study loss and damage to mangrove ecosystems in Mui Ca Mau National Park related to climate change

Chapter 3. Results of assessment of loss and damage to mangrove ecosystems in Ca Mau Cape National Park related to climate change.

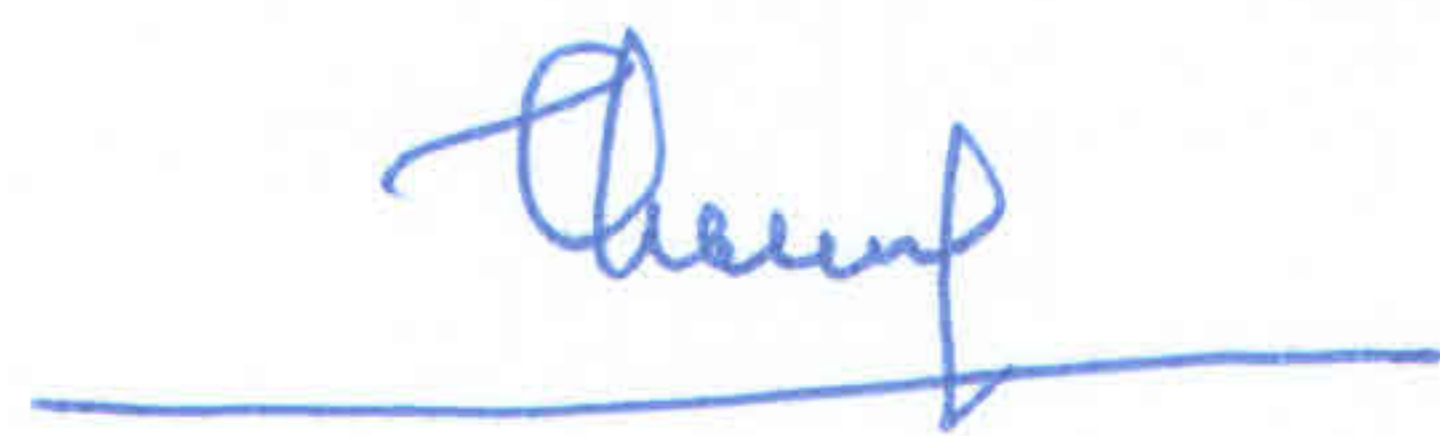
4. New contributions of Dissertation:

The thesis has the following contributions:

- Firstly, the thesis has clarified the scientific basis of loss and damage to mangrove ecosystems related to climate change on the basis of an overview study on loss and damage assessment in general. and loss and damage to mangrove ecosystems in particular related to climate change.

- Second, the thesis has proposed methods and procedures for assessing loss and damage to mangrove ecosystems related to climate change. On that basis, by combining qualitative and quantitative assessment methods, the thesis has assessed the loss and damage to the mangrove ecosystem in Ca Mau Cape National Park related to climate change and propose solutions to minimize loss and damage to mangrove ecosystems in the context of increasingly complex climate change.

Representative of Advisors



Ph.D Nguyen Trung Thang

PhD Candidate



Nguyen Thi Ngoc Anh