

VIETNAM INSTITUTE OF METEOROLOGY,
HYDROLOGY AND CLIMATE CHANGE

SOCIALIST REPUBLIC OF VIET NAM
Independence – Freedom - Happiness

DOCTORAL THESIS INFORMATION WITH NEW SCIENTIFIC
CONTRIBUTION, THEORETICAL STUDY

1. Dissertation title: *“Strengthening the resilience to climate change of the social-ecological system in Giao Thuy district, Nam Dinh province”.*”

Code: 9440221

Major: Climate Change

2. PhD Candidate: Hoang Thi Ngoc Ha

Advisors: 1) Prof. DSc Truong Quang Hoc; 2) Dr. Bach Quang Dung

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

3. Introduction to the Dissertation:

The study “Strengthening the resilience to climate change of the ecosystem - society in Giao Thuy district, Nam Dinh province” aims to achieve the overall objective: to assess the resilience to climate change of the social-ecological system in the study area and propose solutions to enhance the resilience according to the ecosystem-based approach. Specific objectives include: 1) The evolution of natural disaster and climate factors and the main impacts of CC on the SES will be assessed according to social-ecological sub-regions; 2) The CC resilience of the social-ecological system will be assessed by indicators suitable to local conditions; 3) Solutions for enhancing climate resilience under an ecosystem-based approach will be proposed. The research subjects of the climate change resilience of the social-ecological system of Giao Thuy district.

Defending points of thesis: i) Climate change has different impacts on sectors and regions/sub-regions of the social-ecological system; ii) The resilience to climate change of the social-ecological system depends on the resources of the system, including: Nature, Physic, Economy, Socio, and Policy; The assessment of resources by the disaster-climate index set will be the basis for proposing solutions to enhance the resilience of the social-ecological system according to the ecosystem-based approach in accordance with local context.

The research of the thesis was carried out during the period 2016 - 2020 and retrospective data for more than 50 years.

The main methods used include: 1) Collecting, synthesizing and analyzing secondary data and information; 2) Field survey (collection of primary data); 3) Impacts Assessment of Climate Change; 4) CDRI – Disaster and Climate Index; and 5) AHP - Analytic hierarchy process. Thesis uses the CDRI method – a set of climate resilience indicators, and 25 criteria and 125 indicators have been developed to measure resilience to disasters and CC. Two tools to collect information are 5*5 matrix and 5*5 questionnaire, which combines quantitative and qualitative assessment, and calculates weights of criteria, indicators, and resources.

4. New contributions of Dissertation:

i) A set of indicators for assessing the resilience to climate change of Giao Thuy district' SES have been developed in accordance with Vietnamese conditions on the basis of the CDRI assessment method;

ii) The study has carried out the social-ecological zoning for Giao Thuy district in assessing the impacts of climate change and CC resilience as well as proposing solutions to strengthen the resilience of the SES according to the EbA; and

iii) and the thesis has applied the theory of SES in the specific context of the northern coastal plain of Vietnam.

Representative of Advisors

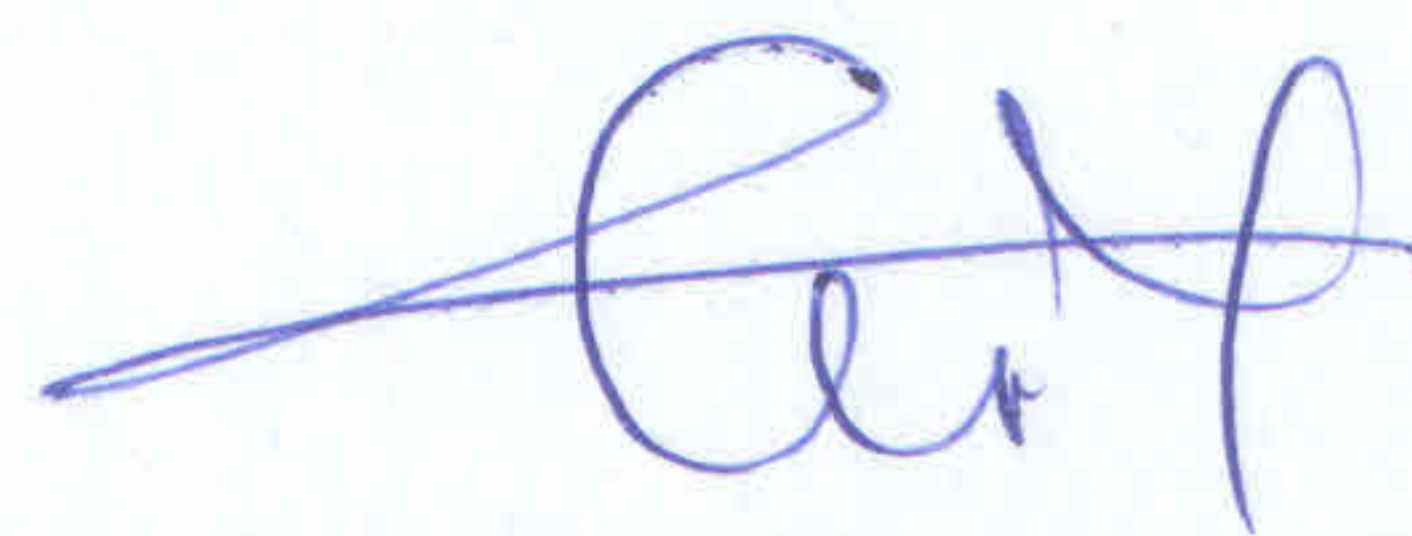


Prof. DSc. Truong Quang Hoc



Dr. Bach Quang Dung

PhD Candidate



Hoang Thi Ngoc Ha