VIETNAM INSTITUTE OF METEOROLOGY HYDROLOGY AND CLIMATE CHANGE	SOCIALIST REPUBLIC OF VIETNAM Independence - Freedom - Happiness

INFORMATION ON DOCTORAL DISSERTATION'S NEW ACADEMIC AND THEORETICAL AND ACADEMIC

1. Dissertation title: Research on water security under the impact of climate change - applied to Quang Ngai province

- Major: Climate change

- Code: 9440221

2. PhD candidate: Bui Duc Hieu

1st supervisor: Dr. Ta Dinh Thi

2nd supervisor: Assoc. Prof. Huynh Thi Lan Huong

Institution: Vietnam Institute of Meteorology, Hydrology and Climate Change

3. Dissertation introduction:

Water is an essential part of life, a basic need and foundation for ecosystem and social activities, so water plays an important role in contributing to conflicts that can threaten human and environmental security. Water security is not simply about "accessing water appropriately" – it is about sustainable access to water in an appropriate quantity and quality to meet the needs of survival, production and survival production, socio-economic development and protection of ecosystems. Recently, water security in the world in general and Vietnam in particular is under threat due to the impact of climate change. In which, Quang Ngai is one of the provinces most heavily affected by climate change and sea level rise.

Facing that situation, many research topics and projects in the field of water resources, environment, climate change in Quang Ngai province have been carried out in order to contribute to the local management. To contribute more scientific and practical bases for the planning, exploitation and management of water resources for sustainable economic, social development and environmental protection in the province in the changing conditions. On climate change, the thesis topic "Research on water security under the impact of climate change - applied to Quang Ngai province" is very necessary, topical and scientific.

The Dissertation has been conducted to: (i) Determine the factors affecting water security, thereby developing a method for assessing water security at the provincial level.

(ii) Assess current and future water security in Quang Ngai province (with and without considering to climate change conditions).

(iii) Propose solutions to ensure and enhance water security in Quang Ngai province in the context of climate change.

Besides the introduction, conclusion and recommendations, the content of the thesis consists of following three chapters:

Chapter 1. Overview of research on water security.

Chapter 2. Research methodology and data on water security in the context of climate change.

Chapter 3. Assessment water security and suggest solutions to ensure, enhance water security for Quang Ngai province.

4. New contribution of dissertation

- Develop a set of indicators for assessing provincial water security in the context of climate change.
- Assess current and future water security in Quang Ngai province (with and without considering to climate change scenarios); also compares the difference between periods and conditions that take into account climate change with conditions that do not take into account climate change
- Propose solutions to ensure and enhance water security for Quang Ngai province; calculations to demonstrate the effectiveness of applying these solutions.

	Supervisor	**PhD Candidate**
TS. Ta Dinh Thi	**PGS.TS. Huynh Thi Lan Huong**	**Bui Duc Hieu**