VIETNAM NATIONAL UNIVERSITY, HA NOI
CENTRAL INSTITUTE FOR NATURAL RESOURCES AND ENVIRONMENTAL STUDIES

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INFORMATION ON DOCTORAL THESIS

1. Full name: Vu Van Khoat 2. Sex: Male

3. Date of birth: 26/01/1980 4. Place of birth: Nam Ha, Tien Hai, Thai Bình

5. Admission decision number: 288/QĐ-TNMT , Dated: 29/10/2019

6. Change in academic process:

Decision No. 487/QĐ-TN&MT, dated 18/10/2022, about allowing PhD candidate to extend their study period until October 29, 2024.

7. Official thesis title: "Integrated resource management for sustainable development in Thanh Son - Tan Son area, Phu Tho"

8. Major: Environment and Sustainable Development

9. Code: 9440301.04

10. Supervisors:

1) Assoc.Prof. Dr. Nguyen An Thinh

2) Assoc.Prof. Dr. Pham Thi Thu Ha

11. Summary of the new findings of the thesis:

Research Aim:

Establishing a scientific basis for analyzing, evaluating, and proposing integrated natural resource management solutions linked to local economic development and household livelihoods oriented towards sustainable development in the Thanh Son - Tan Son area, Phu Tho province.

Research Subject

The research subjects of the thesis are natural resources, focusing on land resources and forest resources.

Research methods

Group of methods for data and information collection: collecting secondary information; collecting primary data: structured interviews, semi-structured interviews,

transect surveys, participatory group discussions, SWOT analysis, developing an evaluation and classification framework for livelihood types.

Group of methods for data analysis: descriptive statistical analysis, regression analysis, method for calculating average carbon stock per hectare in fresh biomass for each forest state, analysis method using the sustainable livelihood framework, mapping and geographic information system (GIS) methods, analytic hierarchy process (AHP) method.

The new findings

Applying an integrated management approach to solve the sustainable resource management problem for a specific territory. This is the first time that a study has applied the integrated natural resource management framework in the research of land and forest resources in the Thanh Sơn - Tân Sơn area, Phú Thọ province.

Developing a system of integrated natural resource management solutions based on the division of ecological functional sub-regions. The land and forest resource management solutions are closely linked to the livelihood development of the local community.

Main results of the thesis:

Natural resources, especially land resources, forest resources, and forestry land, play an important role in conservation as well as in the socio-economic development of the Tan Son - Thanh Son district. The forest ecosystem is diverse, with many rare plant and animal species. The land resources have great potential for developing agroforestry models, intercropping forestry trees with high-value industrial crops.

Agricultural and forestry production is the main source of livelihood for the local people. However, incomes are often unstable due to weather conditions and market fluctuations. Agroforestry livelihood types play a significant role in the livelihoods of the local community.

The management of natural resources in Thanh Son and Tan Son districts has been focused on and has achieved positive results. However, alongside the achievements, there are also undeniable limitations and conflicts that arise in the management and exploitation of natural resources. Illegal logging still occurs, and the management and protection of special-use forests face difficulties due to resource shortages and ineffective coordination among some functional agencies.

The Thanh Son - Tan Son area is divided into three sub-regions, including the conservation sub-region, the conservation support sub-region, and the development sub-

region. Solutions include comprehensive measures to promote integrated natural resource management and different priority solutions for each sub-region. Comprehensive solutions include enhancing and innovating propaganda, education, raising awareness, forming a proactive mindset for saving natural resources and protecting the environment; promoting research and applying scientific and technological advancements in resource management and economic development; strengthening state management of resource management; enhancing and diversifying financial resources for resource management and economic development; developing sustainable livelihoods associated with sustainable natural resource management. The priority solutions for each sub-region vary in order of priority. The conservation sub-region gives more weight to state management solutions, while the conservation support and development sub-regions prioritize livelihood solutions associated with gardening, reforestation, sustainable livestock, and financial support.

12. Further research ditections:

13. Thesis-related publications:

1) **Vu Van Khoat**, Ha.T.T.Pham, Ngo Quang Du, Nguyen An Thinh (2023). Local attitudes toward conservation and tourism around Xuan Son national park. *Multidisciplinary Science Jounal*, 6 (5), 2024.

2) Đoan Danh Cuong, Cao Minh Quy, **Vu Van Khoat** (2021). Possibility of adaptive management for national parks: case study of Xuan Son national park. *Science Journal of Transportation*, Special Issue No.11.