

## Norhed Report from PhD of Economics component:

**Project title:** *Macro and Micro-level impacts of climate change on Vietnamese aquaculture: A case study in central and southern parts of Vietnam*

Activities have been done until in 2018- May 2020

Presented 02 presentations at IIFET conference and at an international training course:

Other activities while in home institution:

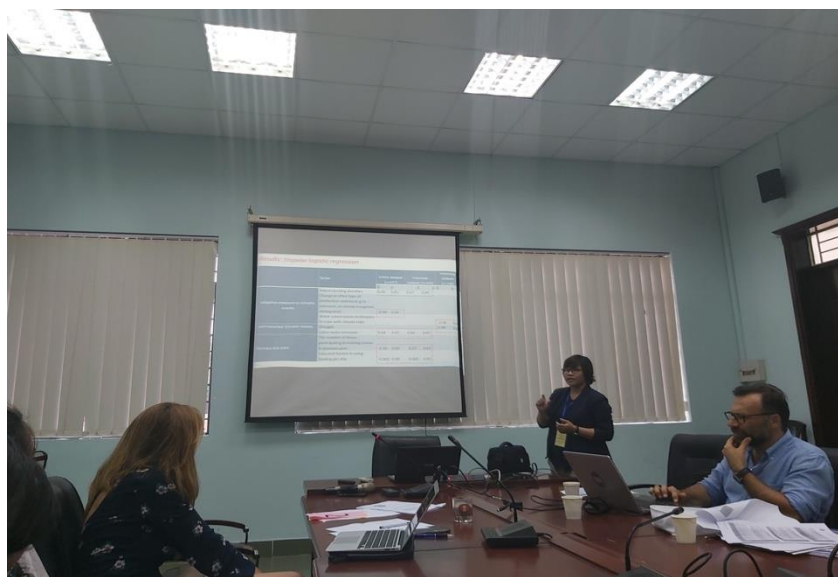
- Rewritten first paper based upon the comments and feedbacks.
- Had a presentation of 1<sup>st</sup> paper of PhD study at NTU in June with NTU colleagues.
- Worked with meta frontier analysis and wrote codes in both R and Stata and presenting the comparison of results between Stochastic frontier analysis and meta frontier in first paper. Rewrite and sent results to main supervisors.
- Worked on data analysis of second paper and start to write second paper (the introduction, data variables description of the key determinants affected for shrimp disease outbreak)
- Conducted shrimp farming visit to four provinces (Bac Lieu, Ca Mau, Ben Tre, Kien Giang) in Mekong river region for learning super/high intensive shrimp farming system (2 phases farming techniques and green house farming) and searching how they cope to climatic events effects, disease control and adaptive measures for write second and third papers.
- Had focus group discussion and face to face interviews with shrimp farmers, shrimp cooperative, shrimp collectors, agents of input suppliers, processing plant (Viet Uc company), aquaculture local staffs in October 2018 in Bac Lieu, Ca Mau, Kien Giang provinces
- Participated in UNCTAD training course in Nha Trang city, Viet Nam from 29 October-9 November 2018 on harnessing the potential of the fisheries sector for socioeconomic development in the least developed countries.
- Presented the topics of an application of shrimp value chain: a case study of Vinh An cooperative, Ben Tre province.
- Return to Tromso from Jan 2020 till now

Presented the following papers in conferences

Ngan Thi Thanh Le, Eivind Brækkan Hestvik (2018, July) Climatic events, environmental impacts and farming inefficiency: Evidence from shrimp farming in the Mekong River Area, Vietnam, IIFET 2018, Seattle, USA.



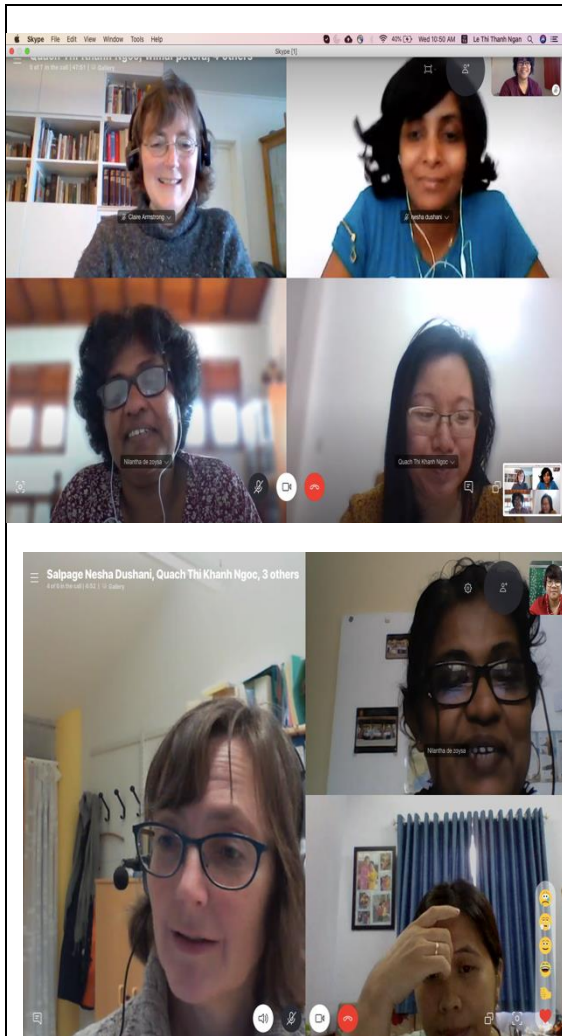
Ngan Thi Thanh Le, Eivind Brækkan Hestvik, Claire Armstrong, (2019, Sep) “The probability of disease occurrence in aquaculture sector under climatic events effects: Evidence from shrimp farms in Mekong region, Vietnam”. Oral presentation at REACT international conference, Ho Chi Minh, Vietnam.



Kim Anh Nguyen, Curtis Jolly, Ngan Thi Thanh Le; (2018 Nov) “Supply chain in shrimp industry: Case study of Vinh An coroperation, Ben Tre, Vietnam. Oral presentation at UNTACD training course, Nha Trang, Vietnam.



Monthly Skype meeting with Prof Claire and other Norhed research fellows from home country



Attending main supervisor's class & other speaker's seminars at NTU



FAO WORKSHOP





2018 : FIELD TRIPS TO 4 PROVINCES IN MEKONG REGION

INTERVIEW SHRIMP FARMER AND VISIT SHRIMP COOPERATIVE AT BEN TRE PROVINCE



VISIT SHRIMP PROCESSING COMPANY AT BAC LIEU PROVINCE



FIELD TRIPS OF UNTACD TRAINING COURSE TO SHRIMP FARM AT KHANH HOA PROVINCES



## INTERVIEW SHRIMP FARMERS AT KIEN GIANG PROVINCE



## AT CA MAU PROVINCE



## AT BAC LIEU PROVINCE



## RETURN TO UiT, TROMSO (JAN 2020 TILL NOW)



### Remaining budget

1. Travel expenses (visa + air ticket) between Tromso and Vietnam: 20300 (5300+ 15000) NOK for defending Phd dissertation.
2. Social science data collection and analysis expenses: 2600 NOK for proofreading service PhD used
3. Fellowship (5 months) in Vietnam: 12500 NOK. From April 2020 to Sep 2020

### Tentative Activities in 2020

1. Submitting manuscript of paper 1 to Aquaculture Economics and Management journal in June 2020
2. Submitting manuscript of paper 2 to Aquaculture journal in Oct 2020
3. Submitting manuscript of paper 3 to Marine Resource Economics journal in June 2020

**PhD candidate**

Le Thi Thanh Ngan