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UNIVERSITY  
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## 16 years of cooperation with Nha Trang (Fisheries) University – Experiences, challenges and potential for future collaboration

*Fishery Forum for Development Cooperation*

*Seminar, Bergen 2019*

*Claire Armstrong  
NFH/UiT The Arctic University of Norway*



## Collaboration with Nha Trang University, Vietnam

- Long history – since early 2000s
- Broad participation from UiT
- Stable partners, but also generational shifts
- Evolved cooperation – education, research, admin



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## Incorporating Climate Change into Ecosystem approaches to Fisheries and Aquaculture Management in Sri Lanka and Vietnam

NORHED project 2015 - 2019




## Partners



- Nha Trang University (NTU), Vietnam – **project coordinator**
- Ruhuna University (RU), Sri Lanka
- University of Bergen, Norway – **Natural Science**
- University of Tromsø, The Arctic University of Norway – **Social Science**





## Goal of the project – capacity development

- Develop Master program at NTU: Master in Marine Ecosystem Management and Climate Change



COURSE PLAN		
Semester	Course	Credits
1 <sup>st</sup> 17 credits	Philosophy (for Vietnamese students)	4
	Introduction to Vietnamese Culture (for international students)	4
	Marine Biodiversity and Ecology	5
	Coastal Habitats and Wetlands	3
	Economics with Mathematics	5
2 <sup>nd</sup> 18 credits	Research Methodology	3
	Aquaculture and Fisheries	5
	Marine Governance and Spatial Planning	5
	Environmental Economics (elective)	5
	Conflicts in Natural Resource Use (elective)	5
3 <sup>rd</sup> 17 credits	Risk and Vulnerability Management with Climate Change	5
	Marine Resource Economics & Management	5
	Sustainable Aquaculture Development and Climate Change (elective)	5
	Aquaculture Economics and Management (elective)	5
	Coastal Zone Management & Economics (elective)	5
4 <sup>th</sup> 15 credits	Research Seminar	2
	Master Thesis	15

## Master program NTU

- From mostly Asian students
- To international



## Goal of the project – capacity development

- Develop Master program at NTU: Master in Marine Ecosystem Management and Climate Change
- Capacity strengthening in research on climate change in the marine at RU and NTU
- 5 PhDs and 5 Post Docs - sandwich
- High quality research on climate change effects in the marine – **ecology, economics and society**



## The aims of the research part of the project

- Develop research competence for South institutions
- Establish strong *collaborative* research teams
- Fill knowledge gaps on coastal climate change issues related to Sri Lanka and Vietnam (natural and social science)
- Gender and marginalised groups focus



## Academic Career Mentoring for women

- Females climbing the academic ladder
- Academic mentoring – USA and Norway (minority and gender)
- One-on-one mentoring



## Some challenges




- Students (Language problems, qualifications, economic situation, long distance supervision, demanding family/work situations)
- Research (Lack of solid data, facilities, cohesion of research group)
- Structural/administrative (economic organisation at South universities)
- Cultural challenges – translating Norwegian models to the South is demanding
- Climate change!
- The project after-life
- Local acceptance (as no development aid mandate, and limited North funding)

**Sustainability of what?!**



## Examples of research and educational relevance from South to North

- Input to North education



**LOOK TO TROMSØ**

Tromsø is located at 70 degrees north in Norway and is above the Arctic Circle. Here you will experience arctic nights and the midnight sun in a city with approximately 70 000 residents, which is close to the sea and surrounded by mountains.


**UiT - THE ARCTIC UNIVERSITY OF NORWAY**

UiT The Arctic University of Norway is the northernmost university in the world. Approximately 15 000 students are enrolled; students in most disciplines, at undergraduate, master's and PhD levels.

We welcome you to the largest research and educational institution in northern Norway, a region distinguished by its abundance of natural resources, polar proximity, multi-cultural communities and major export industries.

**Information about admission to the University of Tromsø:**  
international@adm.uit.no

**For more information:**  
www.nfu.uit.no/studier



For more information about the university, use the qr code

**FACTS**  
MASTER (IFM) 2 years, 120 credits (ECTS)

**Admission requirements:**  
A minimum of three years study at university, which is equivalent to a bachelor's degree in biology, economics, social sciences or combinations of these is required. All lectures are given in English. A good working knowledge of English is therefore essential.

An English proficiency test (TOEFL or IELTS or equivalent) should be enclosed in order to fulfil the entrance requirements. You find more information about language and grade requirements on the web site.

**Application:**  
Local admission.



**Application deadlines:**  
The application deadline for Norwegian and Nordic applicants is 15 April.

The deadline for international students is 1 December.

**CONTACT**  
Ane-Marie Hektoen +47 77 64 60 13  
ane-marie.hektoen@uit.no


**STUDY FISHERIES MANAGEMENT!**

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9037 Tromsø • postmottak@uit.no • uit.no  
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For more information about the IFM master's program, use the qr code

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**Master's Program in  
International Fisheries  
Management**

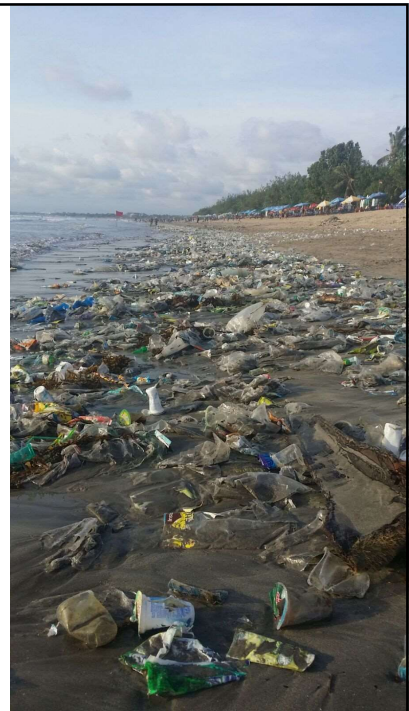
Faculty of Biosciences,  
Fisheries and Economics  
Norwegian College of Fishery Science



uit.no

## Examples of research and educational relevance from South to North

- Input to North education
- Relevant research topics; Climate change, fisheries and aquaculture, tourism, pollution
- Efficient and cheap data collection
- International students
- Research output



Ocean & Coastal Management 122 (2016) 71–80

Contents lists available at ScienceDirect

**Ocean & Coastal Management**

Journal homepage: [www.elsevier.com/locate/ocecoaman](http://www.elsevier.com/locate/ocecoaman)

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**Use conflicts in marine ecosystem-based management — The case of oil versus fisheries**

Peter Arbo<sup>a,\*</sup>, Pham Thi<sup>b</sup>

<sup>a</sup> Norwegian College of Fishery Science, <sup>b</sup> Department of Fisheries Economics and

Fisheries Research 127–128 (2012) 98–108

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**Ocean & Coastal Management**

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**Open-access fishing Nha Trang, Vietnam**

Nguyen Ngoc Duy<sup>a,\*</sup>, Ola<sup>b</sup>

<sup>a</sup> Faculty of Economics, Nha Trang University, <sup>b</sup> Norwegian College of Fishery Science, <sup>c</sup> Norwegian University of Science and Technology

Article history:  
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Keywords:  
Ecosystem-based management  
Regulation of industrial activity  
Use conflicts  
Oil and fishing industries  
Norms and values

**1. Introduction**

The world's coastal and marine resources are under increasing pressure. Issues of concern include destruction of habitats, overfishing, and pollution. Ecological changes are being observed in many coastal and marine ecosystems. The increasing diversity and intensity of human activities in the one hand, the marine ecosystem functioning, and productivity at various give rise to potential use conflicts in the same environment, and if mutually exclusive claims to space may have adverse effects on other

**1. Introduction**

This paper investigates the performance of vessels in an open-access area. First, that the vessel own from his fishing operation; second cost of capital is not covered in

Journal of Food Products Marketing, 18:79–95, 2012  
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ISSN: 1045-4446 print/1540-4102 online  
DOI: 10.1080/10454446.2012.655778

**Attitude toward and Control in Vietn**

NGUYEN TIEN T<sup>1</sup>  
University of Nha Trang, Nh  
SVEIN OTTAR<sup>2</sup>  
The Norwegian College of Fishery Science, Un

*This study uses theory of planned behavioral framework to investigate the relationship between the consumption of fresh fish and the consumption of sea food. The relationship between the consumption of fresh fish and the consumption of sea food is explained by intention control. Intention to consume fish is subjective norms and attitude toward perceived behavioural control is significant, but not to the intention that there may be a difference between actual control. At the specific-being negative affect, perceived quality, an factors that explain 60% of the variance, time needed to cook and price availability of fresh fish are important the variation of the perceived control study also provides some managerial recommendations for future research*

**KEYWORDS** theory of planned behavior, control, fish, Vietnam

This work was performed within the NORAD Norwegian Government is gratefully acknowledges Address correspondence to Nguyen Tien T, Nha Trang, N-02

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Environmental and Resource Economics  
<https://doi.org/10.1007/s10649-018-0281-5>

**Trading Off Tourism for Fisheries**

Bui Bich Xuan<sup>1</sup>, Claas W. Armstrong<sup>2</sup>

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Published online: 18 November 2018

**Abstract**

This paper presents a deterministic bioeconomic model in which the creation of a marine protected area (MPA) is not only a fisheries management tool but also introduced in order to provide tourism amenity benefits. The theoretical model is illustrated with analysis of the Nha Trang Bay (NTB) MPA in Khanh Hoa province in Vietnam, where the anchovy purse seine fishery is considered. An amenity value function of the NTB MPA is estimated from a discrete choice experiment among national tourists. A weighting parameter is added to the bioeconomic model to allow the establishment of a tradeoff between management preferences regarding the two sectors affected by the MPA, fisheries and tourism. Both the theoretical models and the empirical application show how the added amenity values affect optimal fishing practices as well as the identification of the optimal MPA size. Our applied analysis shows that contrary to the argument in most MPA studies with multiple stakeholders, the current management practice in Khanh Hoa prioritizes the fisheries sector heavily compared to tourism, despite high economic cost.

**Keywords** Bioeconomic model · Management · Marine protected area · Fishery · Tourism

**1 Introduction**

Marine protected areas (MPAs) have often been established for the purpose of protecting and recovering biodiversity and habitats (Balford et al. 2004), and hence have also been seen as an alternative fisheries management tool (Rodwell et al. 2003). Restoration of marine biodiversity and seascapes of sub-marine areas due to such protection is also attractive for tourism and other recreational activities (Alban et al. 2008). In this way, MPAs are not only a management tool for fisheries, but they may also provide amenity values via resources for tourism development or recreation. In this paper, we present a bioeconomic model to capture both extractive (e.g. fisheries) and non-extractive (e.g. tourism) values generated by MPAs. We find the optimal trade-off between fisheries and tourism, and compare it to the actual trade-off existing in the current management in Khanh Hoa province, Vietnam.

✉ Bui Bich Xuan  
xuanbb@ntu.edu.vn

<sup>1</sup> Economic Faculty, Nha Trang University, 02 Nguyen Dinh Chieu, Nha Trang, Vietnam  
<sup>2</sup> Norwegian College of Fishery Science, UiT The Arctic University of Norway, 9037 Tromsø, Norway

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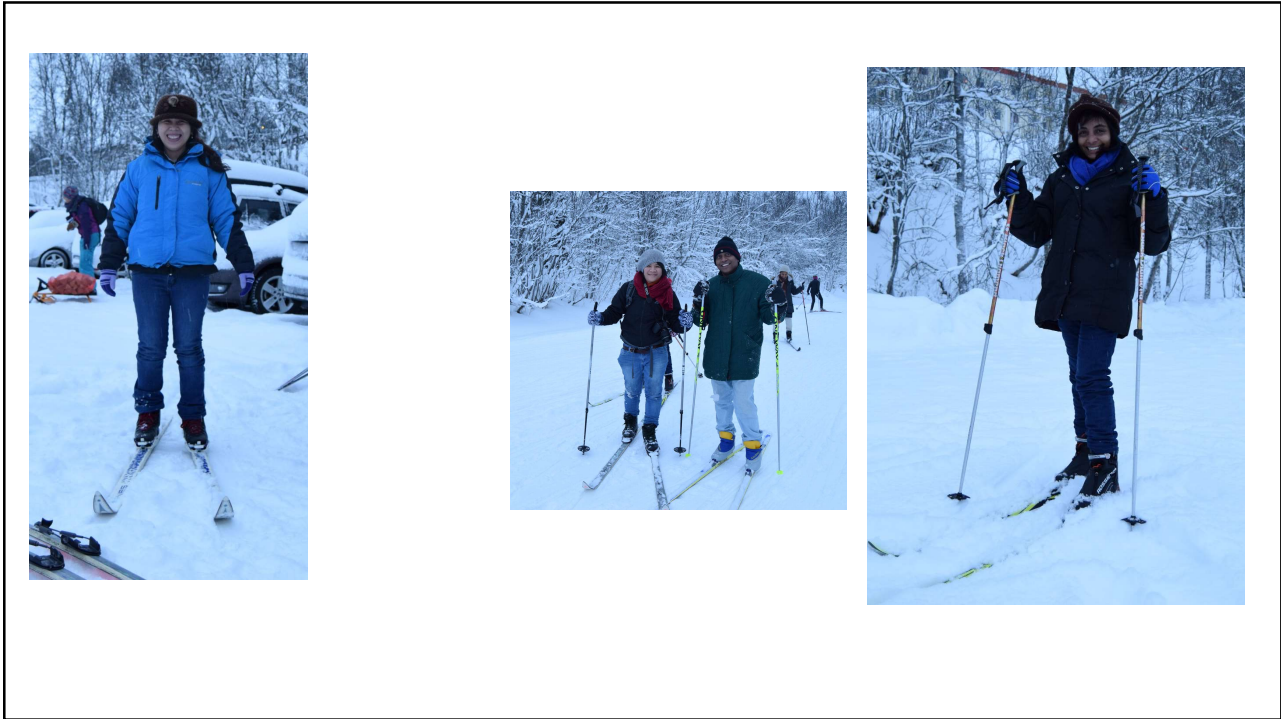
Springer

## The future

- Understanding the South to North benefits
  - Include the North university leadership, admin, faculty members and students
- New generations, research issues and methods
- Leading South institutions as hubs for Master and PhD programs
- Inclusion of capacity development in South marine management institutions, not just universities
- Making sure the relationship keeps developing over time










**Norad**

Om bistand Land Tema Resultater Evaluering Tilskudd Aktuelt Om Norad English

norad.no Tema Klima, miljø og naturressurser Fisk for utvikling



Stattig regulering

## Fisk for utvikling

Norge bidrar til kompetanse i

Norge er i en ledende posisjon innen fiskeri og akvakultur globalt. Siden 1952 har Norge bistått utviklingsland innenfor fiskeri og akvakultur.

Fisk for utvikling er et utviklingsprogram som setter all norsk bistand til fiskeri- og havbruk i sammenheng. Hensikten er at norsk kompetanse og ekspertise bedre skal komme utviklingsland til gode.

Fiskeri- og oppdrettssektoren bidrar direkte til mat sikkerhet, sysselsetting, eksportinntekter og skatteinnbøter. En styrket sektor vil derfor kunne gi bedre tilgang til mat og belegg.

### Om Fisk for utvikling

Fisk for utvikling skal støtte utviklingsland med å sikre bærekraftige fiskerier og økosystemer. Dette vil øke bærekraftig produksjon av fisk og sjømat.