

# People and the Sea IV

## Who Owns the Coast?

Fourth International Conference  
Centre for Maritime Research (MARE)

5 - 7 July 2007

Venues:

Waalse Kerk  
Oudemanhuispoort  
Amsterdam, The Netherlands

Organisers:

Centre for Maritime Research (MARE)



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# Welcome

Dear participant,

July 2007

Welcome to Amsterdam! We are delighted to extend our welcome to what is already the fourth international MARE conference on *People and the Sea*. This year the theme of the conference is on coastal governance and ownership: *Who owns the coast?*

As coastal populations and economies grow and the use of marine and coastal resources expands and intensifies, governance has become a key concern. International agencies, national governments, environmental organisations, and citizen movements have responded by organising international conferences, setting new policy agendas (like Integrated Coastal Zone Management), and devising rules to re-organise space (such as the Law of the Sea) or to protect vulnerable sites and species, as through the establishment of Ramsar sites and Marine Park Areas all over the world.

These initiatives interact with national policymaking, and their implementation often depends on national and local political will and technical capacities. There are cases where the appropriators of the marine and coastal resources are not being involved in decision making about particular spatial distributions of access rights, as in the case of marine parks. Elsewhere, transnational fisher migration creates competing claims to fishing grounds within national Exclusive Economic Zones. These issues of the access to, and ownership and distribution of the resources will be addressed at the *People and the Sea IV* conference here in Amsterdam from 5 to 7 July, 2007.

The conference papers will be presented in panels organised along four thematic ‘streams’: Governance; Space and Ownership; Culture and Work Worlds; and Innovation in Research Approaches.

The conference also features some special events. There is a keynote address on every day of the conference. The first keynote is by Bonnie McCay, who is Professor of Anthropology at the Department of Human Ecology of Rutgers University, New Jersey. The second keynote speaker is Professor Yoshiaki Matsuda, Emeritus Professor of the Faculty of Fisheries at Kagoshima University, Japan. The third keynote will be given by Professor Daniel W. Bromley, Anderson-Bascom Professor of Applied Economics at the University of Wisconsin-Madison.

This year, the MARE Conference is preceded by a ‘Policy Day’ on 4 July focussing on *Marine Protected Areas: 5 years since Johannesburg*. At the World Summit on Sustainable Development in Johannesburg in 2002, the restoration and protection of marine spaces was placed on the international agenda. MARE, as a network primarily of social scientists, seeks to address the integration of societal needs into policy making. The policy day is co-organised with Ecost/CEMARE.

We wish you all a fruitful and pleasant event.

Leontine Visser



Chair of MARE.



## Conference Staff

Director:	Maarten Bavinck
Conference coordinator:	Melanie Minnaard
Daily committee:	Melanie Minnaard Maaïke Knol Marije Broekhuijsen
Conference committee:	Maarten Bavinck Simon Bush Rob van Ginkel Derek Johnson John Kleinen Leontine Visser
Conference volunteers:	Linde Keja Jochem Bokhorst Sarah Groenendijk Eline van Haastrecht Didi van Dijk Joeri Scholtens Arne Lanting Fitriah Kartini Marloes Jeulink Armi Dumadag Tim Nadelstaedt Alina Amador Maren Kruse Daniela Barguil Steven Schut Eline van Haastrecht





## Conference Sponsors



CERES, Research School for  
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promote international cooperation and advance human achievement



## Conference Venues

On the next pages you will find a map and information about the venues where the conference is located. The five sites at which the conference activities will be held are:

1. Waalse Kerk
2. Oudemanhuispoort
3. Atrium
4. Amsterdam City Hall
5. Hotel de Goudfazant

For fire safety reasons, the University of Amsterdam has strict limits on seating in its conference rooms. We would request, therefore, that you kindly do not move chairs between the rooms. Due to these capacity restrictions, seating in panels will be on a first come first serve basis.

### OPENING

1. The opening of the conference will be in the **Waalse Kerk**. The church was built in 1409 and originally used as a chapel for the ‘Paulusbrothers monastery’. The church is located at a small plaza right at the ‘Oudezijds Achterburgwal’.



Address:  
Walenpleintje 159  
1012 JZ Amsterdam

### DIRECTIONS TO WAALSE KERK

Coming from Amsterdam Central Station it's a ten minutes walk. Follow the ‘Damrak’ until you reach the ‘Dam’. Take a left turn into the ‘Damstraat’. After the second bridge turn directly right, into the ‘Oudezijds Achterburgwal’. After 20 meters you will find the ‘Walenpleintje’ and the church at your left side.

Coming from the direction of Utrecht. From Amsterdam Amstel Trainstation take the metro in the direction of central station and exit the metro at ‘Nieuwmarkt’ station. Take the exit ‘Nieuwe Hoogstraat’. Turn left into the ‘Nieuwe Hoogstraat’ and follow the street for some minutes. Turn left at the second bridge, into the ‘Oudezijds Achterburgwal’. After twenty meters you will find the ‘Walenpleintje’ and the church at your left side.



## CONFERENCE

2. The main part of the **conference** will take place in the historic university building the ‘**Oudemanhuispoort**’.



Address:  
Oudemanhuispoort 4-6  
1012 DL Amsterdam

## LUNCH

3. **Lunch** on **Thursday** and **Friday** will be served in the **Atrium**. On Saturday lunch will be served in the Oudemanhuispoort. The Atrium is located close to the Waalse Kerk and the Oudemanhuispoort. On your way from the Waalse Kerk to the Oudemanhuispoort you will pass the Atrium. (see description at Oudemanhuispoort)

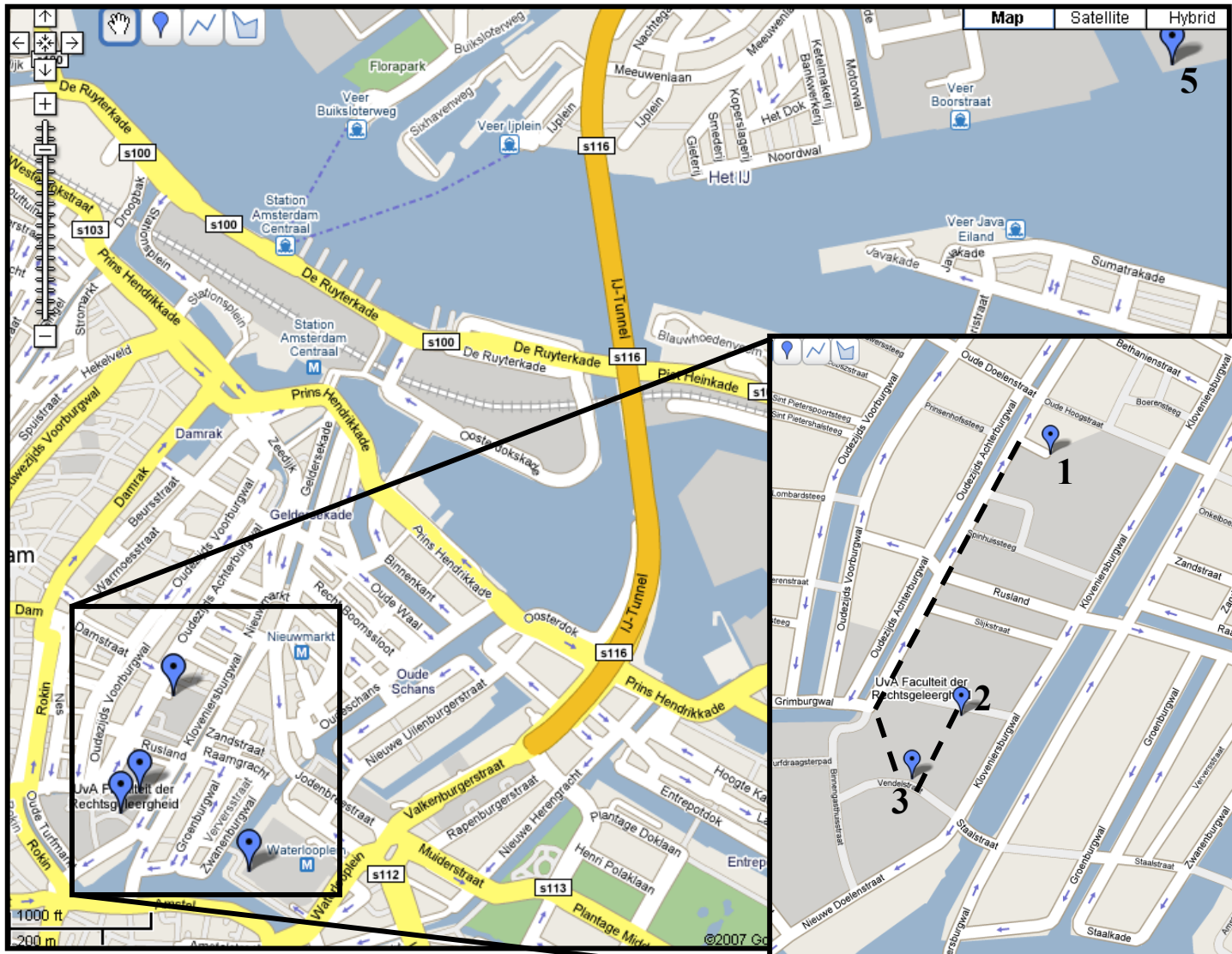


Address:  
Oudezijds Achterburgwal 237  
1012 DL Amsterdam

## DIRECTIONS TO WAALSE KERK → ATRIUM → OUDEMANHUISPOORT

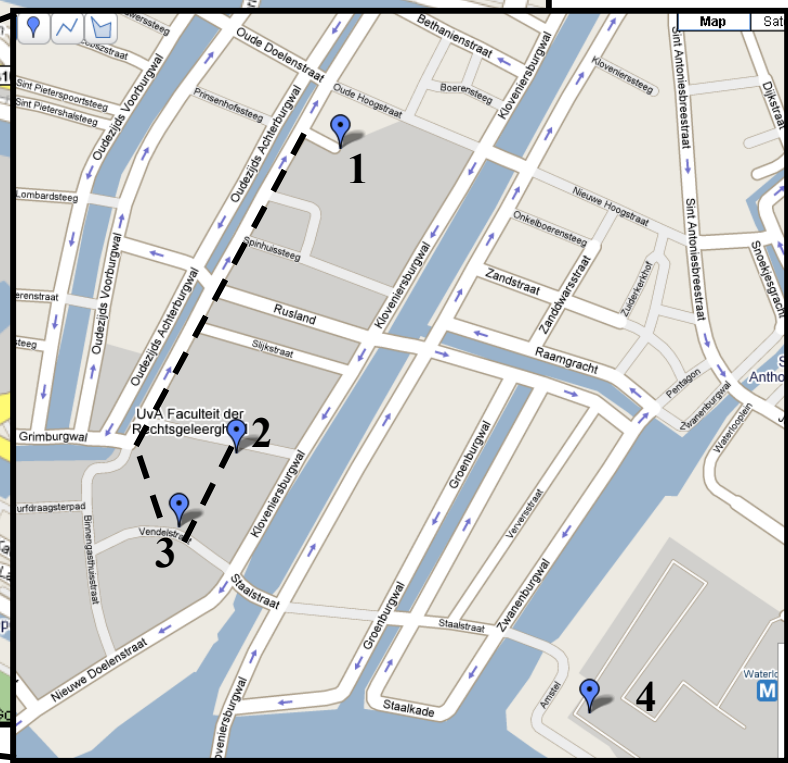
Coming from the Waalse Kerk: Facing the canal, turn left and walk along the canal for some minutes. When you reach the ‘end’ of the street turn left and enter a small gateway (‘Binnengasthuisstraat’) at the far end of the street. The gateway is ‘in the corner of a building’. Follow the alley and turn left again. This is the ‘Vendelstraat’. You will now pass the ‘Atrium’, the lunch location. Continue walking and turn left again, before you reach the gateway and the canal. You will enter a dead end street, which is still called the ‘Vendelstraat’. At the end there is a door. When you walk straight through the door and through another gateway you will enter a small plaza with benches and flowers. This is the ‘Oudemanhuispoort’. From the Waalse Kerk to the Oudemanhuispoort it should not be more than a 10 minutes walk.





Map with conference venues

1. Waalse Kerk
2. Oudemanhuispoort
3. Atrium
4. Amsterdam City Hall
5. Hotel de Goudfzant







## RECEPTION

4. **The reception**, which takes place on Thursday evening from 18.00–19.00 hrs, will be held at the **City Hall of Amsterdam**. The City Hall of Amsterdam is located next to Waterlooplein.



Address:  
Amstel 1  
1011 PN Amsterdam

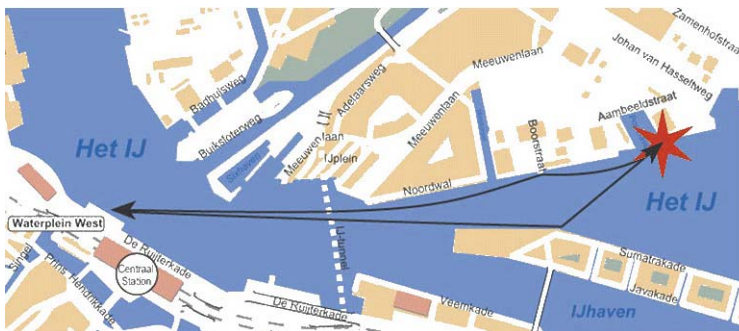
On Thursday we will meet in front of the Oudemanhuispoort at 17.30 hrs and walk together to the reception.

## DINNER

6. The **Dinner** will take place on Friday evening and will be held at **Hotel de Goudfazant**. Departure from the Oudemanhuispoort to travel together towards Hotel de Goudfazant is at 18.00 hrs.



Address:  
Aambeelstraat 10a  
1021 KB Amsterdam



People who have registered for dinner (don't forget to bring your voucher) can meet in front of the Oudemanhuispoort (conference venue) at 18.00 hrs on Friday July 6th, in order to travel to the venue together.



## Information and services

### **Registration**

On Thursday July 5<sup>th</sup> you can register between 9.00 and 10.30 at the entrance hall of the Waalse Kerk. On Friday July 6<sup>th</sup> and Saturday July 7<sup>th</sup> you can register preferably before 9 AM at the information desk in the main hall of the Oudemanhuispoort.

When registering you get a conference bag in which you find this programme book, a badge and some other information. Also you will get an invitation for the reception at the City Hall, 3 lunch vouchers and if you register for the diner on Friday you will also receive a diner voucher.

### **Information desk**

An information desk will be open in the main hall of the Oudemanhuispoort, throughout the conference, for any questions or information. You can also always ask your questions to one of the MARE Volunteers, recognizable by their blue MARE shirts or to the MARE team, who are wearing blue badges.

### **Internet facilities**

In the conference venue, Oudemanhuispoort, computers with printing facilities and internet access have been reserved for the conference participants on the 5<sup>th</sup> and 6<sup>th</sup> of July (so not on Saturday). The computers are located in the studiecentre of the Oudemanhuispoort. This room will also be used by other people (mainly students), so please be silent when working there. For login in to the computers you can use the following username and password:

Username: gastomhp  
password: welkom2ic

### **Copying and Printing facilities**

In order to make use of the printing and copying facilities you need a special card, which is available at the information desk for limited use.

### **Money withdrawal**

At the conference venue Oudemanhuispoort there is a cash dispenser available. It should accept international bank cards.

### **Lunch**

Lunch will be provided for on Thursday July 5<sup>th</sup> and Friday July 6<sup>th</sup> at the Atrium. When registering you receive a lunch voucher that represents a certain value. For this amount you can choose any dish you like from the buffet. There is both hot and cold food and drinks available and prices are indicated at special signs next to the food counters. Please note that any food you take that exceeds the budget of the voucher you will need to pay for yourself. On Saturday July 7<sup>th</sup> lunch is provided at the Oudemanhuispoort. There is no buffet available, but in exchange for your lunch voucher we will provide you with a lunch box.

Additional snacks and beverages can be bought at the Atrium and from machines in the Oudemanhuispoort.

### **T-shirts**

During the conference special MARE conference t-shirts can be purchased at the information desk.



## Introduction to Amsterdam

Amsterdam, popular throughout the world, is famous for its canals, gabled houses, museums and atmosphere. The old city of Amsterdam is very compact. Museums, monuments, markets, shopping streets, and other attractions are all within easy reach by public transport from the Conference location.

Amsterdam also offers a wide variety of theatres, music halls etc. in which you can enjoy all kinds of cultural activities. In price-level, Amsterdam is one of the cheapest capitals of Europe when it comes to shopping.

Over 700 restaurants serve all kinds of food. Around Leidseplein, especially in the Korte Leidsedwardsstraat and the Leidsekruisstraat area lots of small and attractive restaurants are available. Worth trying also is the cosy Jordaan area, where lots of 'eet-cafes' with nice pub food offer their services.

### **Museums**

*Stedelijk Museum of Modern Art*, Painting and sculpture, drawings, prints and photography, graphic design, applied art and design after 1850, Paulus Potterstraat 13 (Mo-Su 10-18 h)

*Van Goghmuseum*, More than 200 of Van Gogh's works, Paulus Potterstraat 7 (Mo-Su 10-17 h)

*Rijksmuseum*, The most important collection of 17th century paintings, Sculptures and craftsmanship, Asian art department, drawings and prints, Stadhouderskade 42 (Mo-Su 10-17 h)

*Netherlands Maritime Museum Amsterdam*, The Netherlands Maritime Museum is housed in the National Naval Depot, a former arsenal of the Dutch Navy that is over 300 years old. The unique and superb collection tells the story of the maritime past of the Netherlands. The jetty outside the Museum provides a permanent berth for a replica of the Dutch East Indiaman Amsterdam.

*Amsterdam Historisch Museum*, Exhibition of the history of Amsterdam, Kalverstraat 92 (Mo-Su 10-17 h)

*Anne Frank House*, The house where Anne Frank wrote her famous diary, Prinsengracht 263 (Mo-Su 9-21 h)

*Joods Historisch Museum*, History and Culture of Jews in The Netherlands, Jonas Daniël Meijerplein 2-4 (Mo-Su 11-17 h)

*Museum Het Rembrandthuis*, About 250 original etchings and some drawings by Rembrandt and a few paintings by his contemporaries, students and master Peter Lastman, Jodenbreestraat 4-6 (Mo-Sa 10-17 h)

### **Theatre / music / cultural events**

Information about programmes and tickets: *AUB ticketshop*, Leidseplein 26, tel. 6211211

*Concertgebouw (Royal Concertgebouw Orchestra)*, Concertgebouwplein 2-6, tel. 020-730573

*Muziektheater* (Opera House), Amstel 3, tel. 020-5518100

*Paradiso*, Pop and music/concerts, Sajetplein (nearby the Leidseplein), tel. 020-6264521

### **Shopping areas**

*Kalverstraat & Nieuwendijk*, In the centre of the city, near Dam square, you will find the busy shopping streets of Nieuwendijk and Kalverstraat, the most important one. Here you will find not only High Street fashion shops, but also classy department stores. On the Nieuwendijk you will mainly find jeans shops and shoe shops.

*Bijenkorf*, On the Dam square itself, is Amsterdam's largest department store, appropriately named the Bijenkorf (beehive). Open: seven days a week

*Magna Plaza*, Behind the Royal Palace on the Dam you will find the Magna Plaza shopping mall, once the General Post Office. Open: seven days a week

*Leidsestraat area*, The Leidsestraat area is a perfect place to combine your shopping with views of canals and refreshment stops in café's. Along the street are fashion boutiques, giftshops and newsagents that stock a variety of international newspapers and magazines

*Spiegelkwartier & Museum district*, The road leading to the Rijksmuseum is lined with 70 arts and antiques dealers of international repute. A diversity of furniture, sculpture, glass, Delftware, clocks, modern art makes this area quite unique. Together with nearby P.C. Hoofstraat and Van Baerlestraat - where you will find the stores of Holland's most prestigious designers as well as international labels – this is the Fashionable Heart of Amsterdam.

*Markets*, Markets are an important part of the Amsterdam reading tradition. The Albert Cuyp Market is one of the biggest and best, but we also mention the flea market on Waterlooplein, and the floating flower market on the Singel canal, open all week except for Sunday.

### **Public transport**

The best way to get around Amsterdam is by public transport. You can get everywhere by tram, metro, bus or ferry. If you often use public transport, it is the best to buy a (multiple) day ticket. For single rides the obvious choice is the strippenkaart (strip ticket) that you stamp every time you use the tram, bus or metro. The number of zones you travel through determines the number of strips you should stamp. 1 zone is 2 strippen, 2 zones 3 strippen etc. Strippenkaarten bought on the bus or tram are always more expensive than if bought beforehand. Metro, bus and tram services run until midnight, after which there are night buses.

### **Taxis**

To get a taxi, call the central number and say where and when you need a taxi. You can also get a taxi in the streets if its 'taxi' sign is illuminated. Taxis all have meters and you have to pay the amount that is indicated on the meter at the end of your ride. A small tip is appreciated. There are taxis stands all over the city centre. Phone taxicentrale: 020-677 77 77 and mobile: 0900 – 677 77 77

## **Parking**

In the city, parking is only permitted on official parking spaces by parking automates and in parking garages. Parking in the city centre is expensive. Beware: just like in any other capital city there is criminality in Amsterdam. Thefts out of cars is just one of its many forms. Quite often tourists leave their belongings in the car. To prevent theft out of cars it is important that you remember where you park your car and that you pay special attention to how you leave it behind. Park it preferably in a guarded parking garage. Do not leave anything behind in your car. If possible remove the backshelf in order for thieves to see that the car is empty. It is just a little effort on your side, but it might help to avoid a nasty experience.

## **Alarm, First Aid, etc.**

*National Emergency Alarm Number* (police, ambulance and fire brigade): 112

*Central doctors service* (doctors, dentists): 592 3434

*Police Alarm number*: 0900 8844

*Main Police Station*: Elandsgracht 117, 1016 TT, tel. 5599111

*Hospitals with First Aid Care*:

- VU Ziekenhuis, de Boelelaan 1117, tel. 4444444
- Academisch Medisch Centrum, Meidreef 9, tel. 5669111
- Onze Lieve Vrouwe Gasthuis, 1e Oosterparkstraat 297, tel. 5999111
- Kruispost (18.45 – 23.00 h.), Oude Zijds Voorburgwal 129, tel. 6249031

## **Post and Telephone**

Main Post Office, Singel 250-256, tel. 5563311

You can buy telephone cards at the VVV Amsterdam Tourist Office (Central Station), the airport, post offices and some tobacco-shops.





## Centre for Maritime Research (MARE)

The Centre for Maritime Research (MARE) is an interdisciplinary social-science institute studying the use and management of marine resources. It takes a worldwide as well as multidisciplinary approach, contributing to academic understanding as well as to the policymaking process. MARE's programme is guided by two core themes: integrated coastal zone development and fisheries.

The Universiteit van Amsterdam and Wageningen University and Research Centre provide MARE with support. MARE's office is located in the Amsterdam Institute for Metropolitan and International Development Studies (AMIDSt) of the Universiteit van Amsterdam.

MARE's aim is to provide a stimulating intellectual climate for academics and policymakers, both in Europe and in the South, and a platform for the exchange of scientific knowledge on the use and management of marine resources. MARE publishes a refereed social science journal entitled *Maritime Studies* (MAST) and has a publication series with Amsterdam University Press. It also organizes biennial international conferences in Amsterdam, The Netherlands.

For more information on MARE, see [www.marecentre.nl](http://www.marecentre.nl)



## General programme

### Thursday July 5, 2007

Chair: Prof. Dr. A.J. Dietz

WK <sup>1</sup>	09.00 – 10.30	Registration and coffee
WK	10.30 – 11.00	Opening ceremony by Martin Scholten, Director of IMARES
WK	11.00 – 12.15	Keynote Bonnie J. McCay, <i>The Littoral and the Liminal: Or why it is hard and critical to answer the question 'Who Owns the Coast?'</i>
Atrium <sup>2</sup>	12.15 – 13.30	Lunch break
OMHP <sup>3</sup>	13.30 – 15.00	Parallel session 1
OMHP	15.00 – 15.30	Tea break
OMHP	15.30 – 17.00	Parallel session 2
CH <sup>4</sup>	18.00 – 19.00	Reception City Hall

### Friday July 6, 2007

Chair: Prof. Dr. I.S.A. Baud

OMHP	09.00 – 10.30	Parallel session 3
OMHP	10.30 – 11.00	Coffee break
OMHP	11.00 – 12.15	Keynote Yoshiaki Matsuda, <i>Coastal governance in Asia and the Pacific.</i>
Atrium	12.15 – 13.30	Lunch break
OMHP	13.30 – 15.00	Parallel session 4
OMHP	15.00 – 15.30	Tea break
OMHP	15.30 – 17.00	Parallel session 5
HGF <sup>5</sup>	19.00 – 22.00	Dinner (optional)

### Saturday July 7, 2007

Chair: Prof. Dr. J. Verrips

OMHP	09.00 – 10.30	Parallel session 6
OMHP	10.30 – 11.00	Coffee Break
OMHP	11.00 – 12.30	Parallel session 7
OMHP	12.30 – 13.30	Lunch break
OMHP	13.30 – 14.45	Keynote Daniel W. Bromley, <i>The Crisis in Ocean Governance: Conceptual Confusion, Economic Nonsense, Political Incoherence</i>
OMHP	14.45 – 15.00	Closing ceremony
OMHP	15.00 – 16.00	Reception

#### Locations

- 1 WK: Waalse Kerk, Walenpleintje 159
- 2 Atrium: Atrium, Oudezijds Achterburgwal 237
- 3 OMHP: Oude Manhuispoort, Oude Manhuispoort 4-6
- 4 CH: City Hall, Amstel 1
- 5 HGF: Hotel de Goudfazant, Aambeeldstraat 10a

## Detailed programme

**THURSDAY JULY 5, 2007**

**Chair: Prof. Dr. A.J. Dietz**

### **Morning programme in the Waalse Kerk**

09.00 – 10.30 Registration and coffee

10.30 – 11.00 Opening ceremony

*Opening Speech by Martin Scholten, Director of the Institute for Marine Resources & Ecosystem studies (IMARES)*

11.00 – 12.15 Keynote Bonnie J. McCay

*The Littoral and the Liminal: Or why it is hard and critical to answer the question 'Who Owns the Coast?'*

### **Lunch is served in the Atrium**

12.15 – 13.30 Lunch break

### **Afternoon programme in the Oudemanhuispoort**

13.30 – 15.00 Parallel session 1

1	1	Advances in Governance Theory	Room C 117
2	1	MPA's and Competing Claims for Space	Room C 323
3	1	Communities, Knowledge and Authority	Room D 118d
4	1	Transitions in Asian Small-Scale Fisheries	Room D 118c

15.00 – 15.30 Tea break

15.30 – 17.00 Parallel session 2

1	2	Governance and Marine Protected Areas	Room C 117
2	2	Ownership I	Room C 323
3	2	Socio-dynamics of Fisheries	Room D 118d
4	2	Governance and Compliance in Fisheries Management	Room D 118c

### **Evening programme**

17.30 Reunion at Oudemanhuispoort to walk to the reception

18.00 – 19.00 Reception at the City Hall of Amsterdam

**FRIDAY JULY 6, 2007**

**Chair: Prof. Dr. I.S.A. Baud**

**Morning programme in the Oudemanshuispoort**

9.00 – 10.30 Parallel session 3

- |   |   |   |             |
|---|---|---|-------------|
| 1 | 3 | Governance of Coastal and Marine Systems: Challenges and Tools                      | Room C117   |
| 2 | 3 | Wind Farms and Coastal Governance   | Room C 323  |
| 3 | 3 | Job Satisfaction in Capture Fisheries: A comparative Study I                        | Room D 118d |
| 4 | 3 | Slippery Objects in Marine Research: Approaches from Science and Technology Studies | Room D118c  |

10.30 – 11.00 Coffee break

11.00 – 12.15 Keynote Yoshiaki Matsuda

*Coastal governance in Asia and the Pacific*

**Lunch is served in the Atrium**

12.15 – 13.30 Lunch break

**Afternoon programme in the Oudemanshuispoort**

13.30 – 15.00 Parallel session 4

- |   |   |   |             |
|---|---|---|-------------|
| 1 | 4 | Enabling Changes in Natural Resource Governance                               | Room C 117  |
| 2 | 4 | Globalisation, Governance and Locality: Artisanal Fisheries and Coastal Space | Room C 323  |
| 3 | 4 | Job Satisfaction in Capture Fisheries: a Comparative Study II                 | Room D 118d |
| 4 | 4 | Impact Assessment and Communication in Fisheries Management                   | Room D 118c |

**Round Table** Empowering Sustainability: Science on People and the Sea Room D 118b

15.00 – 15.30 Tea break

15.30 – 17.00 Parallel session 5

- |   |    |  |             |
|---|----|--|-------------|
| 1 | 5a | Assessing the Governance of Fish Chains                      | Room C 117  |
| 1 | 5b | Transition Towards Sustainable Fisheries                     | Room D 118b |
| 2 | 5  | Marine Space: Social Theories, Practices and Boundary Making | Room C 323  |
| 3 | 5  | Fisher Cultures in Transformation                            | Room D 118d |
| 4 | 5  | Sharing or Commanding Coastal and Near Shore Space           | Room D 118c |

**Evening programme (optional)**

18.30 Reunion at Oudemanshuispoort to walk to the dinner venue

19.00 – 22.00 Conference Dinner at Hotel de Goudfazant (optional), Aambeeldstraat 10a.

**SATURDAY JULY 7, 2007**

**Chair: Prof. Dr. J. Verrips**

**Full day programme in the Oudemanhuispoort**

09.00 – 10.30 Parallel session 6

- |   |   |  |             |
|---|---|--|-------------|
| 1 | 6 | Cyborgisation and Manageralism in North Atlantic Fisheries I                             | Room C 117  |
| 2 | 6 | Managing Change in Fisheries: Challenges, Impacts and Conflicts                          | Room C 323  |
| 3 | 6 | Governability, Institutional Design and Conservation: The Case of Marine Protected Areas | Room D 118d |
| 4 | 6 | Governance of Maritime and Coastal Areas in Europe                                       | Room D 118c |

10.30 – 11.00 Coffee break

11.00 – 12.30 Parallel session 7

- |   |    |   |             |
|---|----|---|-------------|
| 1 | 7a | Cyborgisation and Manageralism in North Atlantic Fisheries II   | Room C 117  |
| 1 | 7b | Role of Governments in Fisheries Management in the Asia-Pacific | Room D118 c |
| 2 | 7  | Ownership II  | Room C 323  |
| 3 | 7  | Fisheries in West-Africa  | Room D 118d |
| 4 | 7  | Valuing Biodiversity in European Coastal Communities            | Room D 118b |

12.30 – 13.30 Lunch break

13.30 – 14.45 Keynote Daniel W. Bromley

*The Crisis in Ocean Governance: Conceptual Confusion, Economic Nonsense, Political Incoherence*

14.45 – 15.00 Closing ceremony

15.00 – 16.00 Reception

## Keynote speakers

**Bonnie J. McCay**

*Board of Governors Distinguished Service Professor  
Rutgers University, New Jersey (USA)*

**Thursday 5<sup>th</sup> of July, 11.00 – 12.15 (Waalse Kerk)**

### **The Littoral and the Liminal: Or why it is hard and critical to answer the question ‘Who Owns the Coast?’**

#### ABSTRACT

Coasts—the littoral—have features that make them somewhat “liminal,” that is, neither one thing nor the other, transitory, and on the threshold. Such features of in-between-ness are often treated culturally as problematic, even taboo (following Edmund Leach, Mary Douglas, and others). In this talk I explore the liminality of coasts, including their dynamics and their boundaries, landward and seaward and side-by-side. I observe how this leads us into the value-laden and contentious domain of “property rights” analysis, including the familiar domain of privatized property, the still poorly charted territory of commonly held property, and the mythical terrain of no property or “open access,” the lands and seas where *res nullius* is the rule, and our imaginations run wild with visions of fabulous wealth, whether fish or gold, or of fabulous monsters, once depicted in explorers’ charts and now seen as IUU fishing vessels. I will conclude with a turn to the more familiar coastal waters and shores and the rough charts of the commons, with a view toward how anthropological analyses such as this can contribute to improved policy for ocean and coastal management.

#### BIOGRAPHY

Bonnie J. McCay (Ph.D. Columbia University 1976) is Board of Governors Distinguished Service Professor at Rutgers University, New Brunswick, where she teaches and does research in the Department of Human Ecology and the graduate programs of Anthropology, Geography, and Ecology & Evolution.

Her research focuses on the challenges of managing “common property” resources, particularly those of coasts and marine fisheries. Research sites are Newfoundland and Nova Scotia, Canada; Baja California, Mexico; Puerto Rico; and the northeast Atlantic coast of the United States, particularly New Jersey.

Books include “Oyster Wars and the Public Trust,” “The Question of the Commons,” and “Community, State, and Market on the North Atlantic Rim,” and “Enclosing the Commons.”

**Yoshiaki Matsuda**

*Professor Emeritus of Kagoshima University  
Kagoshima University (Japan)*

***Friday 6<sup>th</sup> of July, 11.00 – 12.15 (Oudemanshuispoort)***

**Coastal Governance in Asia and the Pacific**

ABSTRACT

Countries in Asia and the Pacific are surrounded by seas and people's lives have depended on fisheries for a long time. They have developed unique fish eating culture according to their own environment. Based on a unique framework of community-based fisheries co-management system, once Japan led fisheries in this region and experienced the rise and fall. In Japan fisheries were a leading industry after WWII and fisheries and fishing villages play important roles in the society such as not only food security employment and economic opportunities in rural communities, but also succession of culture, research, educational and recreational opportunities, environmental and national securities. However, the development of canning, freezing and storing technology developed during and after WWII has changed people's life styles. This trend was accelerated by the economic growth, free trade and the UNCLOS III development in the late 20th century. Fisheries profitability has also decreased since the 1970s and the so-called economically efficient became non-economical in the 1990s. Number of workers decreased drastically. The similar situation has occurred and repeated in most Asia and the Pacific. Good governance is a governance to secure the way to prevent such a wasteful repetition to improve the situation actually, contributing to UN's goals of poverty eradication, food security, protection of our environment, human rights, democracy and peaceful solution.

BIOGRAPHY

He was born in 1939, graduated from Hokkaido University Faculty of Fisheries (Aquaculture) and received B.S. in 1966 and M.S. in 1968. He also received M. AET in 1973 and Ph.D in 1976 from the University of Georgia in the United States. As a post-doc researcher, he spent some time at Woods Hole Oceanographic Institution and the East-West Environment and Policy Institute in the United States. As an associate professor of International Marine Policy, he joined Kagoshima University in 1980 and became the professor in 1991. After the retirement in 2005, he, as a professor emeritus of Kagoshima University, has been working with Japan International Cooperation Agency, IC Net Co. Ltd, and the World Bank as a fisheries consultant. He is also President of Japan International Fisheries Research Society (JIFRS), Director of International Institute of Fisheries Economics and Trade (IIFET) and Representative of Marine Forest Promotion Society in Japan.



**Daniel W. Bromley**

*Anderson-Bascom Professor of Applied Economics  
University of Wisconsin-Madison (USA)*

***Saturday 7<sup>th</sup> of July, 13.30 – 14.45 (Oudemanspoort)***

**The Crisis in Ocean Governance:  
Conceptual Confusion, Economic Nonsense, Political Incoherence**

ABSTRACT

Each passing month brings renewed clamor to rescue ocean policy (and ocean governance) from flawed policies that have produced serious overexploitation. The problems in ocean management have emerged over the time period that coincides with the extension of exclusive economic zones (EEZs) throughout the world. The political and economic pressure to exploit these fishery resources was apparently irresistible. My comments focus on the reasons why so many nations have shown themselves unable to manage many fish stocks in a sustainable manner. The reasons can be found in: (1) conceptual confusion; (2) flawed advice from economists; and (3) political incoherence.

BIOGRAPHY

Daniel W. Bromley is Anderson-Bascom Professor of applied economics at the University of Wisconsin-Madison. He has published extensively on: (1) the institutional foundations of the economy; (2) legal and philosophical dimensions of property rights; (3) economics of natural resources and the environment; and (4) economic development. He has been editor of the journal *Land Economics* since 1974. He is a Fellow of the American Agricultural Economics Association, and is listed in *Who's Who in Economics*. He served as Chair of the U. S. Federal Advisory Committee on Marine Protected Areas between 2003-2006.

He has written and edited eleven books, including *Economic Interests and Institutions: The Conceptual Foundations of Public Policy*; *Environment and Economy: Property Rights and Public Policy*; *Making the Commons Work*; *The Handbook of Environmental Economics*; and *Sustaining Development: Environmental Resources in Developing Countries*.

His most recent book is *Sufficient Reason: Volitional Pragmatism and the Meaning of Economic Institutions*, published in 2006 by Princeton University Press.



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## Parallel Sessions – Paper Abstracts

### Parallel Session 1 Thursday 13.30- 15.00

#### Panel 1.1 Advances in Governance Theory

Chair: Jan Kooiman

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#### Governance, Governability and Systems of Interactions

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Interactions are an essential element of the interactive governance perspective. The same applies to governability, considered as the capacity for governance, consisting of three central components: a governing system a system to governed and the system of interactions between them. The paper focuses on the interaction-systems part. Governance interactions can take multiple forms and many concepts discussed in the literature can be given a place within such interaction systems. Mentioned can be concepts as interest groups, social movements, participation in public affairs, stakeholders, and partnerships. Basically all these can be seen as different forms of governance interactions and classified as such. The paper suggests that a distinction of societal interactions in three forms interferences, interplays and interventions is a conceptual tool to distinguish three 'directions' of them: interferences from system to be governed to governing system; interventions from governing system to system to governed and interplays as more or less equalised meeting places of the two systems: arrows in both directions. The paper ends with the suggestion for a number of characteristics of governance interactions useable as a basis to assess their role in governability.

#### Canada's Fisheries Act, 2007: Propulsions towards Sustainability amid a Sea of Governance Challenges

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On December 13, 2006 Canada introduced legislation in Parliament to replace its antiquated *Fisheries Act* dating from 1868. This paper reviews major thrusts in Bill C-45 to support more sustainable fisheries and the numerous ocean/coastal governance challenges remaining in the wake of the modernized fisheries statute. Progressive moves, among others, include: elevating sustainable development of Canada's seacoast and inland fisheries as an overarching objective; articulating key sustainability principles to be followed in fisheries management such as the precautionary approach, public participation and the ecosystem approach; spelling out the mandatory and optional factors to be considered in making licensing and allocation decisions (for example, fishers' adjacency to the fishery and historical participation); laying legal foundations supportive of community-based fisheries through ministerial powers to allocate by order quantities/shares of fish among groups or communities and to enter into fisheries management agreements with representative organizations. Steps to move beyond courts as the prime avenue for imposing sanctions on fisheries offenders are also described, namely, the discretion given to the Attorney General to enter into alternative measures agreements with offenders and the establishment of the Canada Fisheries Tribunal to decide sanctions for licence violations. Multiple governance challenges will confront Canada even if/when the new *Fisheries Act* is passed. Those challenges include: the need to complete a network of marine protected areas; the slow process of developing integrated ocean management plans; the lack of a comprehensive legislative framework governing mariculture; and the scientific and practical obstacles constraining recovery of threatened or endangered marine species, such as inner Bay of Fundy Atlantic salmon populations listed as endangered under Canada's *Species at Risk Act*. Putting sustainability principles into effective practice is still an unmet goal.

**Exploring “Complex Multilateralism” in Fisheries Governance: The Role of Social Movements and Producer Groups**

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"Complex multilateralism" is a term used to understand how the norms and frameworks of "global governance" emerge out of negotiations between a range of actors, chiefly, states, multilateral institutions, corporations, and civil society actors. This paper seeks to explore "complex multilateralism" with regard to fisheries governance, with a focus on the role of social movements and producer groups. What has been the nature of the intervention by social movements and producer groups in global fisheries governance? What has been their relationship with national governments when intervening directly in international fora? What have been the tensions and conflicts within such movements? Have they been more successful in intervening in some areas than in others, and if so, why? This paper will set out the conceptual framework and organizing questions for a larger research project on globalization in the fishery and the role of social movements in global fisheries governance.

**Towards Justice in Natural Resource Governance: Application of Environmental Justice to Coastal Commons**

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Even though establishment of governance regime is important, devolution of authority may not always result in social, economic and environmental justice. This paper strives to situate the importance of the concept of justice within the discourse of governance with particular focus on procedural and distributive equity. The resource conflict in Chilika lagoon, a Ramsar site on the eastern coast of India, is discussed. The concepts of ‘good governance’, ‘adaptive governance’ and ‘interactive governance’ have been considered for an analysis of justice in relation to lagoon social-ecological system. Using an environmental justice approach the paper concludes with a framework for understanding the prospects for justice in the governance of coastal commons.

## **Panel 2.1 MPA's and competing Claims for Space**

*Chair: Flip van Helden*

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### **Putting MPA's to work: A Mexican Study on Community Empowerment**

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There is an increasing pressure on the coastal zone on a global basis. MPAs are often tools to exclude fishers and other interests from the area. Therefore, MPAs often encounter opposition due their highly politicized nature. My data, on the other hand, suggests otherwise, as they present an exception from this general observation. Drawing on empirical data from Mexico, this article will focus on how a community has mobilized to create a MPA from the bottom-up where most management responsibilities are situated locally. As most coastal communities in the region, the community depends on fisheries for both subsistence and commerce, and they are facing challenges such as declining resources, mass immigration and hurricanes. In this article, I demonstrate how MPAs can be used as a means to empower fishers and their communities, and how the global discourse on MPAs can be put at work locally.

### **Crowded Strait: Sharing the Space of the Coastal Area in North Sulawesi, Indonesia**

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Lembah Strait of the north Sulawesi is not only home to thousand of traditional fishermen whose livelihood dependent upon fishing, but also located within the region's busiest seaport. The strait is also known for its high marine biodiversity and has been an alternative tourist destination beside the famous Bunaken National Marine Park. Recently the area has become a target of conservation management by establishing marine protected area for the benefit of tourism industry. The decision, however, has triggered resentment among fishermen who feel threatened by the existence of the park. Using an economic valuation approach and bioeconomic modeling technique, this paper analyzes the socio economic impacts of various mechanisms associated the resource and space allocations issues as well as policy implication for the local government

### **Fishermen's Views on No-take Marine Protected Area Proposals in SW England**

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Fishermen in the UK, as in most of the world, have enjoyed the rights to fish the total sea area, with the exception of safety/security exclusion zones, provided stocks are present and it is technically and economically feasible to exploit them. Conservation measures are imposed, such as quotas on certain species, partial/seasonal closures and various technical restrictions. However, all these measures are aimed at fish stock conservation objectives and other than these, the basic presumption has been that all areas can be fished, under the principle of 'the freedom of the seas'. This presumption is now being undermined by increasing calls for no-take marine protected areas, in which all fishing is banned, primarily in order to achieve marine biodiversity conservation objectives. These proposals raise many issues from the fishing industry's perspective as they represent a fundamental challenge, through the introduction of marine biodiversity conservation objectives, to access rights decision-making processes. These issues are explored based on a programme of 51 interviews in 2005 with various fishing industry representatives in south-west England, focusing on themes such as justice, identity, knowledges and power relations.

### **Panel 3.1 Communities, Knowledge and Authority**

*Chair: Rob van Ginkel*

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#### **‘A Matter of Honour’: Changing Epistemologies of Practice and Production Discourses in a Dutch fishing Community**

*Rob van Ginkel*

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This paper examines the perception of differential success in the occupational community of beam trawl fishermen on the Dutch island of Texel. The local skippers attribute variations in catches to their personal knowledge, skills, expertise and stamina. Being successful lends skippers considerable prestige. It is, as the paper's title indicates, 'a matter of honour', contributing importantly to fishing being highly competitive. However, this so-called 'skipper effect' is mitigated by the need to participate in reciprocal information barter, while success mainly depends upon skipper-crew interactions. Does this make the skipper effect a myth, as some anthropologists would claim? Does competition stand in the way of mutual cooperation? And how have shifts in management regimes affected the production discourse and epistemology of practice of Texel beam trawl skippers? These are some of the questions that I seek to answer. The data presented are based on two stints of fieldwork, from December 1989 to March 1991 and from August 2005 to September 2006, with the aim of analysing the long-term adaptive strategies of the local fishermen

#### **Dynamics of Change in Openwater Capture Fisheries: Social Organisation of Production Characterising Traditional Fishing in Southeastern Bangladesh**

*Ranajit Dastidar*

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The traditional fishing communities of Bangladesh live close to various open waterbodies, particularly along the sea coast and river banks. They live together in distinct fishing *paras* or quarters within larger village units inhabited by other occupational groups such as peasant cultivators. The fishing *paras* are complex social units since the fishing community includes households who are involved in different activities of fishing. Some households are involved in fishing in the open waterbodies, while others are engaged in fish trading. Some earn their livelihoods through collection of shrimp fries from the sea and rivers and selling these to the fry-traders. There are also intra-household differences in terms of activities. The paper deals with research questions and hypotheses to document and analyse different types of production contracts and the social organisation of production characterising traditional fishing in Southeastern Bangladesh and the factors and processes of change over the last few decades

#### **The Agta and the Sea: The Economic and Cultural Importance of Marine Fisheries for a hunter-gatherer Population in Northeastern Luzon, the Philippines**

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The Agta of Northeastern Luzon have primarily been described as a hunting people in transition (Griffin and Griffin 1985; Headland 1997). The importance of fishing for especially coast-dwelling Agta groups has been underexposed. This paper combines ethnographic and biological data to give a detailed account of Agta marine fisheries. It presents results on fishing practices, time investment in fishing, rates of return and indigenous knowledge systems. Based on these results, the paper will argue that marine resources are indispensable to the Agta's economic and cultural system. This has implications for the Philippine Government's current policy to grant indigenous communities collective rights to natural resources. In as far as such rights have been granted to the Agta, these do not include marine resources

#### **Panel 4.1 Transitions in Asian Small-Scale Fisheries**

*Chair: Derek Johnson and Ratana Chuenpagdee*

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##### **Patron-client Relationships and Legal Pluralism in the Fishery of Junagadh District, Gujarat**

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One of the striking features of economic change in the fishery of Junagadh district since the 1950s has been the persistence of merchant-client relationships despite the massive, globalisation-induced changes that the fishery has experienced during this period. In the current context of increasing concern over the evidence of resource degradation that is taking place in the fishery, this paper asks what this structural feature within the fishery means for management that seeks to build on extant 'legal' arrangements. The paper takes a legal plural perspective that locates management in formal state law, informal community-based law, and in their interactions. The empirical basis of the paper is data gathered between 1997 and 2006

##### **The Sea Change: Reviving Small-Scale Communities after the Tsunami**

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The aftermath of the Indian Ocean Tsunami lie beyond the casualties, property damages and devastated coastal ecosystems. Livelihoods and social fabric of a large number of fishing communities have been destroyed. While several rehabilitation efforts have been successfully implemented, some have led to worsen the impacts. The boat rebuilding programmes, for example, have resulted in an increase in the number of boats and in some boats being given to people who had never fished. Revival of small-scale fishing communities requires not only the understanding of the tsunami impacts, but also on the consequences of the aid and assistance. An assessment of the pre- and post-tsunami conditions of the fisheries and the fishing communities is required and a distinction must be made between indigenous or chronic problems and post-tsunami issues. We illustrate the importance of such knowledge using the study conducted in the six provinces on the Andaman coast of Thailand

##### **Fisheries and Coasts in Transition: Decentralization, Institutional Change and Resource Governance in Tam Giang Lagoon, Vietnam**

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Economic globalization and neo-liberal inspired institutional reform are changing fisheries and coasts throughout Southeast Asia. Fisheries are perceived to be a lucrative driver of economic growth: export-led industrial operations, privatization policies and efforts to attract foreign investment play an increasingly important role. At the same time, there has been an emergence of community-based models of resource governance that seek to occupy the institutional spaces created in the wake of this transition. However, these new governance models have been slow to yield positive or equitable outcomes (social or ecological). Drawing on experiences in the Tam Giang lagoon, we examine why innovative efforts to foster participatory governance remain, in the near-term, contested and circumscribed. We draw attention to three issues in particular: (1) the slow and ad-hoc role of institutional reform in Viet Nam, despite the rhetoric (albeit mild) of decentralization; (2) asymmetries in local institutional development which lead to divergent experiences with resource governance in neighbouring communes; and (3) assumptions about property rights that simplify a complex reality, and which fall largely outside the scope of formal intervention.





## Parallel Session 2 Thursday 15.30- 17.00

### Panel 1.2 Governance and Marine Protected Areas

*Chair: Maarten Bavinck*  
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#### **The Designation of Marine Protected Areas in Belgium: From Government to Governance?**

*An Cliquet and Dirk Bogaert*  
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In 1999 a new law on the protection of the marine environment was enacted in Belgium. This law created the possibility for establishing marine protected areas in the Belgian marine waters. Several attempts were made but never succeeded due to serious public and political protest against the designation. In 2005-2006 the Minister for the North Sea succeeded in designating several marine protected areas. A process evaluation is currently being done at the Ghent University. Preliminary results learn that the failure of the first attempts were due to a complete lack of well organised communication and participation. In the later successful attempt a thorough informal participation process was set up. The question remains whether the participation led to a weakening of the conservation measures

#### **Marine Protected Areas in Relation to Management and Governance of Marine Resources**

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Marine Protected Areas (MPAs) are promoted as an important marine ecosystem management tool. However, they are no simple solution. They are complex systems that, from a governance perspective, raise serious challenges with regard to their effectiveness. In this paper MPAs are analyzed from a governance system perspective. Drawing on recent contributions to the so-called “interactive governance theory,” we argue that marine and coastal governance is basically a relationship between two systems, a “governing system” and a “system-to-be-governed”. The former system is social: it is made up of institutions and steering mechanisms. The latter system is partly natural, partly social: it consists of an ecosystem, and the resources that this harbours, as well as a system of users and stakeholders who, among themselves, form political coalitions and institutions. We need to be concerned with the relationship and the interaction between the governing system and the system-to-be governed, which forms a system in its own right. Governance theory argues that both systems and their interactions share similar attributes – they are diverse, complex, dynamic and vulnerable. This raises serious concerns as to their governability. There may be limits to what the governing system can do, limits attributed to one or all three systems. But such limits are hardly a once and for all given: they are issues and concerns for planning and institutional design. In this paper we present, in the form of a governance matrix, the relevant issues and concerns with regard to the governability of MPAs.

#### **Marine Protected Areas and Local Ecological Knowledge within Bottom-Up and Top-Down Approaches to Marine Conservation in Brazil**

*Leopoldo Cavaleri Gerhardinger, Eduardo Aires Godoy and Peter J.S. Jones*  
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The role of Marine Protected Areas (MPAs) and Local Ecological Knowledge (LEK) of fishermen within Bottom-Up (BU) and Top-Down (TD) approaches to marine conservation are evaluated on the light of four study cases in Brazil, namely: 1) Arvoredo Biological Marine Reserve (designated/Top-Down); 2) Babitonga Bay Marine Fauna Reserve (candidate/Top-Down); 3) Corumbau Marine Extractive Reserve (designated/Bottom-Up); 4) Cassuruba

Marine Extractive Reserve (candidate/Bottom-Up). Bottom-up initiatives traditionally devolve power to local communities, with decisions over management being taken in ‘collaboration’ with relevant authorities (e.g. government). Top-Down approaches, in turn, are those led solely by government, which uses power over decisions to guarantee the accomplishment of strategic/statutory obligations. A general look over these four study cases shows that divergences over local development priorities can threaten trust and partnership building amongst stakeholders and/or relevant authorities (study cases 2, 3 and 4), potentially compromising the delivery of the MPAs objectives in both TD and BU initiatives. It is noticed that the Brazilian government can struggle to designate MPAs without local stakeholders support (study case 2), and when they do designate on a TD basis, the MPA can be really difficult to implement due to lack of local partnerships (e.g. study case 1). Acknowledgment of LEK systems within management schemes are often considered to be critical to foster the development of respect for what people know and, as a result, do within local natural environmental and ecological settings. However, a close look in the examples given herein tells us that LEK studies remains within the academia (study cases 1, 2 and 3), and when they are used, most stakeholders are not even aware of how/where/when they were used at all. Any potential benefit of LEK use is thus lost in the process. An eminent question arising from these observations is “How and where should LEK be effectively communicated and used to inform decisions when they are being made?”. Finally, we argue that both TD and BU approaches have their roles, strengths and weaknesses in marine conservation in Brazil, and thus a balanced approach will often succeed. In this regard, building partnerships amongst actors and promoting ‘social capital’ can be considered ways forward. Partnerships are essential means through which the ‘perils of parochialism’ (when local development priorities overcomes nature conservation objectives) are avoided and strategic nature conservation objectives are achieved.

## **Panel 2.2      Ownership I**

*Chair: Simon Bush*  
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### **Analysing Institutional Arrangements Determining Coastal Resource Allocation in Developing Countries: The Case of Marine Protected Areas in México**

*Roberto Enriquez-Andrade*  
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From the economic perspective marine protected areas are institutional arrangements that alter resource allocation rights at local and national levels. The issue at hand is how these arrangements benefit local users and what kind of incentives they generate for resource conservation. This paper strives to introduce the concept of “rent escapement” as a measure of how marine protected areas may help to retain, in the local communities, the economic benefits generated by the ecosystem services they contain. Two cases in the Baja California Peninsula are analysed and discussed in detail. The first looks at the El Vizcaino Biosphere Reserve, in particular analyses the situation of gray whale ecotourism. The second case takes into consideration whale shark ecotourism in Bahia de los Angeles; a place nearby, but outside the biosphere reserve. It subsequently, compares the proportion of economic surplus that is retained at the local level and relates it to the tenure arrangements that exist in both locations. The paper concludes with insights regarding the conditions, under which, marine protected areas may create the proper incentives for biodiversity conservation and alleviate “tragedy of the commons” related problems in Mexico.

### **Who owns Mudflats?: Mud-sledge Fishermen around Sumatra**

*Akifumi Iwabuchi*  
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Mud-sledges are common sub-fishing gears for collecting aquatic products on mudflats. In eastern Sumatra, sea nomads or orang laut have ridden in mud-sledges, propelled by feet, or sometimes by hands. Given mudflats as the global commons used to be free accessible to orang laut, carrying mud-sledges on dwelling boats. While orang laut have been forced to live on land, Malays have been settled in the coastal areas alongside mudflats, where they have also started using mud-sledges for foraging purposes. Each coastal Malay village recognizes the local or community commons over the flats; the commons is never questioned by outsiders since nobody could trespass upon mudflats without a special tool, mud-sledge. These days, however, this idea of ecotone ownership is showing signs of involution, partly because of the ecological or socio-cultural changes observed between tropical rain forest and sea, and partly because of the influence of national governance over the coast.

### **Ownership of Fijian Inshore Fishing Grounds: Proposed Changes in Legislation and Issues of Traditional Authority**

*Annette Muehlig- Hofmann and Joeli Veitayaki*  
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The question of coastal ownership has caused confusion in Fiji for more than 130 years. Dual ownership of the traditional inshore fishing grounds (*qoliqoli*) exists, whereby indigenous Fijians have exclusive ownership of fisheries resources and traditional fishing rights but the sea floor belongs to the state. In August 2006, in an attempt to resolve the situation, a ‘Qoliqoli Bill’ was put before the Fiji Parliament, through which all proprietary rights to *qoliqoli* areas could be returned to the identified traditional *qoliqoli* owners. In the context of Gau Island, where community surveys were conducted in 2004, this paper discusses for the first time potential implications of the Bill for local traditional authority. It highlights that, under fully returned *qoliqoli* ownership on Gau, strong village leadership will be critical to successful marine resource management and requires more careful attention, as such local foundation may be weak or undermined where traditional customs erode.

### **Panel 3.2 Socio-dynamics of Fisheries**

*Chair: Benjamin Blount*

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#### **Factors affecting Participation in North Carolina and Georgia Fisheries (USA)**

*Benjamin Blount*

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Data from ethnographic interviews and from questionnaire surveys were collected in 2003-2004 to address questions of factors that motivated individuals to either enter or to leave commercial or recreational fisheries in two southeastern Atlantic counties, Brunswick County, North Carolina and McIntosh County, Georgia, during the period 1994-2003. In both counties, the major factors affecting participation in commercial fisheries were changes in coastal land use policy and in price deflation due to increase in imported fish, each contributing to difficulty of making a living. Waterfront property issues were paramount in Brunswick County, whereas price structure due to imports was the principal factor in McIntosh County. Recreational fishing differed in the two counties, with tourism and retirement as the major driving factors in Brunswick County and widespread resident-based recreation as the comparable factor in McIntosh County. Characteristics of changes in fisheries were different depending on the degree of coastal gentrification.

#### **Get out or Get left? Understanding young People's Experiences of Home in Killybegs, Ireland**

*Rachel Donkersloot*

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Canada

The flight of young people, particularly females, from rural fishing localities across the North Atlantic and North Pacific is well documented. Few studies however are attentive to the experiences and perceptions of those who stay. Some studies suggest that staying is the 'unintended consequence of failure to leave'. Focusing on the interplay between gender, place and migration in Ireland's premier fishing port, this paper concentrates on the different ways in which local young men and women perceive and experience life at home and leaving. Central to this study is 'place', particularly the gendered nature of place, and the ways in which place influences youth consciousness, identity, and life-paths. The objectives of this study include understanding gender differences in young people's perceptions and experiences of staying and leaving, how place influences migration decisions differently for young men and women, and how the social characteristics of migrants and non-migrants differ.

#### **The Effects of Tradable Rights to Fish: The Decline of the Fishing Fleets along the English Coastline**

*Trevor Hutton*

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Over the last 100 years, there have been significant declines in the size of the fishing fleets in English ports. Decreases in the number of vessels can be attributed to changes in technology, yet recent regulations have limited the number of vessels. The introduction of property rights to harvest fish provides the opportunity for capital to move offshore. Although member states within the EU have attempted to restrict trade across borders, internal policies to increase trade that will result in rationalisation of the industry, has resulted in the complete transfer of rights and capital offshore. Research is presented from research on the attitudes of representatives of the Industry and producer organisation in the 1990s to ITQs and more recent research in 2006. Results are also presented on efficiency studies and exit and entry in order to evaluate the effects of technology and fishing stocks on the size of fishing fleets.

**The Ethnic Card: Rights Discourses in the Norwegian Coastal Zone**

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Who is and who should be entitled to fishing rights are important issues in the world's fisheries management discourse. Privatising of fishing rights and increased emphasis on aboriginal rights put the rights issues on the agenda. This paper reports from an ongoing process to determine who is entitled to fish in the coastal sea in Finnmark, the northernmost county in Norway. This process has sprung out of a long-lasting struggle initiated by Norway's indigenous people, the Sami, to gain rights to land and water. In 2006 the Ministry of Fisheries put down a committee to investigate *Sami's and other people's rights to fish in the coastal water in Finnmark*. In their investigation work, the committee arranges public meetings in coastal municipalities to receive knowledge about local customs and traditions concerning coastal fisheries and marine resource management in the past, at the present, and views on future management. How are coastal people participating at the public meetings? How do they react when fishing rights are put in relation to ethnicity? What impact may official rights processes that determine the use of coastal water have on people's perceptions on ethnicity – that is, does it lead to more open or closed categories of ethnicity?

## **Panel 4.2 Governance and Compliance in Fisheries Management**

*Chair: Merle Sowman*

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### **Governance of Artisanal Fisheries in the Benguela Current Large Marine Ecosystem (BCLME)**

*Merle Sowman and Agostinha Duarte*

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South Africa

This paper investigates the governance arrangements relevant to the artisanal fisheries sector within South Africa, Namibia and Angola of the BCLME. One of the key objectives of the study was to promote harmonization of policies and management approaches relevant to the artisanal fisheries sector within this LME. The recent transition to democracy in all three countries provided an excellent opportunity to review and reform policies and management approaches relevant to this sector and address international calls to move towards more holistic and participatory approaches to fisheries management. Research indicates that the policies and governance arrangements relevant to the artisanal fisheries sector differ markedly across the three countries. This is in part due to historical resource use patterns, the relative abundance of coastal fisheries resources, political priorities, interpretation of fisheries policy objectives in the context of macro-economic policies, the relative contribution of fisheries to poverty alleviation and food security and the limited power of emerging coastal fisher organizations.

### **An Analytical Framework for Understanding Small Scale Fisheries Compliance in South Africa**

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Fisheries compliance has been identified as key to sustainable fisheries management. However, it has been widely acknowledged that the approach by many governments worldwide to achieve compliance is largely through law enforcement efforts. This heavy reliance on crime control to enhance fisheries management has had many pitfalls, and has often ignored key factors that influence compliance behaviour. Thus, this paper begins to explore an integrated approach to understanding compliance in small-scale fisheries in South Africa. Through intensive fieldwork, an analytical compliance framework is explored that highlights the social, economic, political, biophysical and institutional factors that influence compliance behaviour. These factors are exacerbated by government's attempts to grapple with a political transformation of the fishing industry, a redistribution of access rights to previously disadvantaged groups and an informal sector in many of the small-scale fisheries that is considered illegal by the state. Therefore, the challenge by government to achieve sustainable fisheries management is far from simple and involves an understanding of the diversity of factors that are influencing both formal and informal fishers' decision-making. It is argued that this understanding will lead to more effective strategies to manage small-scale fisheries, and ultimately sustain both the resource and fishers' livelihoods.

### **Risking Precaution: Framing Uncertainty in Fisheries Advice**

*Kåre Nielsen*

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While the discourse on precaution has gained an enormous importance in environmental policies, there is neither universal agreement on its conceptualization, nor on its practical implementation. To be a guide for action, this discourse must be tamed and translated into operational rules and guidelines in specific contexts. I address how precaution has been implemented within fisheries, focusing on the ICES Precautionary Approach framework for providing advice on fisheries management. This framework is based on precautionary reference points that define and serve as guidelines for achieving precautionary fisheries management. I examine this framework conceptually and practically. To be of importance for management decisions, uncertainty must be framed. In this case precaution is translated into a set of quantifiable risk parameters. The framing process, however, renders some forms of uncertainty visible while simultaneously excluding others from consideration. This raises the

question about the extent to which the ICES Precautionary Approach is consistent with the precautionary principle.

**Governance Attributes Preference Elicitation in the Artisanal Fisheries of Sierra Leone**

*Andrew Baio*

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Administrative decentralisation was seen as a prerequisite for enhancing personal security and social welfare after the civil war. Devolution of fisheries resource governance followed fast pace implementation schedule devoid of the differing opinion of interest parties on the importance of governance attributes reflected in the process. Sound fisheries resource governance is vital to resources stewardship, acceptance and compliance with management systems. Flawed resource governance system exclusive of attributes correctly tuned to interest parties' goal for governance intervention is inimical to the success of governance arrangements. Analytical Hierarchy Process (AHP) is applied to measure the importance attached to defined fisheries governance attributes (Endowment Equity, Political Equity, Economic Equity, and Institutional Equity) by key stakeholders. Differential importance attached to attributes and trade-offs between them gives an inclusive means for analysis of effects of group opinion on resource governance factored in the construction of governance arrangement in the Artisanal Fisheries of Sierra Leone.





## Parallel Session 3 Friday 09.00- 10.30

### **Panel 1.3      Governing of Coastal and Marine Systems: Challenges and Tools**

*Chair: Ratana Chuenpagdee*  
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#### **Participatory Planning with Coastal Transects Analysis Model**

*Ratana Chuenpagdee*  
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Activities within coastal zones connect and interact in the physical and social contexts, requiring thus integrated and participative management approaches. Coastal Transects Analysis Model (or CTAM) is developed as an ‘on-line’ interactive tool, aiming to enhance our understanding of coastal interactions and to facilitate participatory coastal planning. First, users are asked to describe their coastal areas in terms of physical characteristics, habitats and activities, using simple interface and icons. Their inputs will be processed and classified into coastal transect types. While users with quantitative data can build models specific to their coastal areas, those without information can still learn about the productivity of the system and the flows of biomass, cash and labor in the coastal areas using corresponding model prototypes. In both cases, CTAM serves as a tool to encourage discussion about trade-offs and to enable exploration of different policy options among coastal stakeholders and managers.

#### **Shellfishing, Eider Ducks and Nature Conservation on the Wash: Questions Raised by a Fractured Partnership**

*Tomas Roberts and Peter Jones*  
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This paper examines the state of current governance of Common Pool Resources (CPRs), the impact of the changes in the partnership paradigm, and ultimately the consequences for the management of CPRs. These issues are explored through the case study of the Wash Marine Special Area of Conservation (MSAC) partnership where a public inquiry (PI) recently upheld the refusal of English Nature (EN) to grant mussel farmers permission to scare eider ducks off their lays using sonic bird-scaring devices. As a result the relationship between EN and the mussel farmers has been severely damaged causing a fracturing of the Partnership. Through this case study the paper explores the contradictions involved in statutory partnerships and asks if it is possible to use partnerships to empower local communities while the state remains in overall control.

#### **Challenges to Governance: East Godavari District, Andhra Pradesh**

*Sarah Southwold- Llewellyn*  
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The Netherlands

The concept of governance addresses some of the criticisms of other approaches to resource management by placing greater emphasis on diversity, complexity, dynamics, scale, principles and values. The paper will focus on three institutions directly involved in fishery governance at the local level of East Godavari District. The first is the state Fisheries Department; and the second two are self-organising institutions of artisanal and of mechanized boat fishers. Together they represent plural legal systems which share the principles of equity of allocation and preservation of fishing stocks. Dispute analysis will illustrate the contradictions between articulated principles and actual practices. Fisheries governance is linked with other stakeholders, such as industries and shrimp hatcheries, who not only compete for the coastal areas but have activities that affect the fishery by reducing fishing stocks and the livelihoods of fishers. As a consequence, this wider group of stakeholders undermines the commitment of fishers to their shared principles.

**"A Kashubian Maszoperias - Forgotten Case of an Interactive Governance on the Baltic Sea Coast: What Could We Learn >From the Past?"**

*Boguslaw Marciniak*

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Polish fishery is still experiencing great turbulence. On the one hand ongoing decline of fish stock and increase of fishing overcapacity. On the other hand collapse of communism, recent membership of Poland in the European Union, introduction of the market oriented economy and impact of the processes of globalization. Previous organizational structures of Polish fishery and ways of its management changed radically. This article examines qualities and characteristics of traditional forms of interactive governance in Kashubian Maszoperias and their strategies of survival. The idea of Maszoperia had a remarkable meaning in Polish fisheries management tradition. Refreshment of this idea could be very supportive in search of an alternative to present governance approaches.

## **Panel 2.3 Globalisation, Governance and Locality: Artisanal Fisheries and Coastal Space**

*Chair: C. Butler*  
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### **Carving up the Coast: License Fragmentation and the Breaking of Locality in British Columbia**

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Canada

Fisheries regulations draw lines on maps and within communities by creating limited access permits and complex management structures. The restructuring of the British Columbia salmon fishery in the late 1990s resulted in the creation of discrete license categories which separated the fleet by gear type and fishing area, and resulted in increased fleet fragmentation and internal conflict. Compounding the issue, recent conservation initiatives and risk averse management have resulted in highly varied fishing opportunities in areas that were historically equally lucrative. As the fortunes of areas shift according to management priorities, salmon fishing is being 'delocalized'; residential adjacency is increasingly dislocated from license ownership and fishery participation. 'Northern fishermen' are less and less 'northerners', resulting in diverging and conflicting interests based on geography, access to capital, and fishing practice

### **We became an Island: The Negotiation of Coastal Spaces in Yucatan, Mexico**

*S. Doyon*  
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University Laval

The social, economic and political development of the Yucatan coast has faced many transformations in the past fifty years. In this paper, we consider that these changes can be understood as a construction of spaces, beginning with a "marginalized space" in the 1950s, to a "fishing space" in the 1970s, and an "environmental conservation space" since the 1990s. These successive changes are closely linked to local politics and broader globalization processes, and are embedded in neo-liberal interests. However, these constructions are contested and negotiated by coastal communities, whose actors developed their own diverse coastal spaces, according to their social practices, economic activities, and environmental perceptions, leading to a much more fragmented coast. Nevertheless, one constant remains in these various communal coastal spaces: the increasing isolation the population affirm it is now facing, leading the actors to think of themselves as an island, even on firm land. This paper will analyse this process and its implications for coastal governance.

### **Why Worry about Artisanal Fisheries in the Era of Neo-liberal Globalization?: A Case Study of the French Artisanal Fishing Fleet and the Importance of Community-Based Governance**

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Canada

The continuation of family-based Artisanal fisheries is at risk in the context of neo-liberal globalization. Neo-liberal approaches favour rationalized economic models of governance in which individualized property, rationalized modes of production and concentrated ownership are prioritize over locality-based modes of harvest and governance. Drawing upon a decade an a half of field research with fishers from the Bigouden region in Brittany, France this paper considers the neo-liberal arguments of efficiency and rationality as a mechanism of fisheries governance. In this paper we consider the following questions: What aspects of neo-liberalism benefit community-based fisheries? What aspects undermine these fisheries? And, ultimately, is there a future for artisanal fishing communities in the era of neo-liberal globalization?

**Governing Global Fish Provisioning: Ownership and Control of Marine Resources**

*Peter Oosterveer*

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The Netherlands

Globalization in the fish supply chain is linking distant locations and creating challenges for environmental governance. Conventional nation-state based governance arrangements are becoming increasingly inadequate and in response alternative arrangements emerge. This paper will compare labels such as MSC and WTO-based attempts to address problems of sustainability through governing global fish supply chains. Applying concepts developed on global food governance provide evidence for the disappearance of conventional distinctions between the local, national and the international level and between public and private agents in recently introduced governance arrangements. Governing global fish provisioning in an effective manner will challenge traditional notions of ownership and sovereignty, because it requires linking local fishermen with distant consumers through communication and information on production circumstances.

### **Panel 3.3 Job Satisfaction in Capture Fisheries: A Comparative Study I**

*Chair: Maarten Bavinck and R. Pollnac*

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#### **Aspects of job satisfaction among the fisheries of Na Pru village, Tambon Na Kha, in the Sub-District of Suk Sumran, Ranong Province, Thailand**

*R. Pollnac*

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Building on previous research on job satisfaction among fishers in the USA and Southeast Asia (cf. Pollnac and Poggie 2006, 1988; Pollnac, et al. 2001), this paper examines aspects of job satisfaction among the small-scale fishers of Na Pru village on the Andaman Sea coast of Thailand. The small-scale fishers use a variety of fishing gears and techniques targeting a range of different fishspecies. In this survey job satisfaction is measured across five categories; basic needs, social needs, self-actualization, management and the value of nature. In addition three overall questions on job satisfaction have been added relating to whether a fisher would enter a job outside of fishing or move to another type of fishing and whether he would advice a young person to enter the fishery. In this paper the scores of Job satisfaction amongst these five categories, the three overall questions and other variables are investigated as well as the possible impact of the Tsunami on the outcome

#### **Job Satisfaction amongst Nicaraguan Lobster Fisheries**

*Iris Monnereau*

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Centre for Maritime Research (MARE)

The Netherlands

The ECOST project attempts to investigate whether the social costs of fisheries can be measured in quantitative terms by means of global job satisfaction surveys across three continents. Only a few country comparisons of job satisfaction in commercial fisheries had been made and the majority has been in industrial countries (Bavinck and Monnereau, 2006). This paper investigates job satisfaction amongst different types of lobster fishers in Nicaragua, a survey that has been carried out within the ECOST project. In this survey job satisfaction is measured in five categories in line with Maslow's hierarchy of needs; basic needs, social needs, self-actualization, management and the value of nature. In addition three overall questions on job satisfaction have been added relating to whether a fisher would enter a job outside of fishing or move to another type of fishing and whether he would advice a young person to enter the fishery. The survey was carried out across different fishing subsectors, or métiers, of the lobster fishery in Nicaragua including differences in scale (small-scale as well as industrial) as well as different gear type use (trapping versus diving). This paper investigates the scoring of job satisfaction with regards to the different categories, the best and worst scoring items and explores whether the position of a fisher (e.g crewmember versus boatowner) or use of different scale or gear type might affect the outcome and what implications this might have for management.

#### **Job satisfaction in Senegalese fisheries : A case study in both demersal and pelagic fisheries**

*Aliou Sall*

Socio – anthropologist

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CRODT

This article is produced in the framework of ECOST as part of the sociological component. The author is aiming, based on field work, to investigate Job Satisfaction amongst West African small-scale fishers. The job satisfaction surveys were conducted in Senegal in three different fishing communities: Joal, M'Bour and Soubedioune across three different fishing métiers (two different types of long liners targeting demersal species, and fishermen using purse seiners catching pelagics).

The expected outcomes from this field research is of two orders. The first one is to explore whether fishing is far beyond a simplistic economic activity, but rather a means for human realization. Secondly the author wishes to investigate the importance of self representation of « fishing » as a job by fishers themselves as a social component to be integrated in Ecost's attempt to investigate whether the social costs of fisheries can be measured in quantitative terms by means of global job satisfaction surveys across three continents.

### **Panel 4.3 Slippery Objects in Marine Research: Approaches from Science and Technology Studies**

*Chair: De la Hoz del Hoyo*

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#### **When all you have are ‘Hammers’ with Grips as Slippery as Fish, you can Make a Real Mess**

*Diego de la Hoz del Hoyo*

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This paper looks at the production of an impact assessment of the management plan proposed by the European Commission for an important fishery in the North Sea. A set of practices involving cutting edge bio-economic modelling performs the management measures and renders the potential distribution of effects knowable. This is a process of objectivization aiming to present the proposal as a coherent plan according to policy goals. However, the two modelling approaches used in the assessment unexpectedly end up producing totally divergent predictions. This leads to a thorough comparison between the models that, instead of bringing convergence and closure, teases out a myriad of complexities regarding ‘what’ exactly is being compared when different technical, biological, economic, political and institutional factors are deeply intertwined within each model. Standpoints from Science and Technology Studies are particularly well-suited to illustrate the slippery character of ‘sociotechnical objects’, like in this case the computer models, and the ‘mess’ they can bring into decision-making.

#### **Salmon go to Chile: The Technology of Domestication and the Domestication of Technology**

*Gustavo Blanco Wells*

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Chile

Chile has become the world’s second largest producer of farmed salmon and trout in less than 20 years. Experts present Chilean aquaculture as an exemplary case of the country’s economic performance. These accounts tend to detach salmon farming of both local historicity and its material constituency. One of the aspects obscured by these narratives is that, unlike other exporting countries, salmon is not a native species of Chilean rivers and therefore its adaptation was a process of experimentation. This paper offers some insights to fill this gap based on case studies of the domestication of salmon and trout in the Chilean Patagonia prior to the industrialisation of fish farming. It presents historical and ethnographic material about marginal accounts of both successful and failing practices that have contributed to introduce salmonid species. It is argued that were some of these forgotten practices that eventually led to commercial fish farming. Bringing them to light might contribute to situate the importance of local practices in the domestication of technology.

#### **What is a Fish: A Study of Unstable Relations in Science and Politics**

*Guro Ádnegard Skarstad*

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Actor-network-theory, developed as part of science and technology studies (STS), contributes to an understanding of culture-nature relations. According to actor-network-theory, there is not one Nature, but several “natures” that are produced through the (cultural) relations they are part of. Similarly, such a perspective suggests that there exist not “one Fish”, but “many fishes”. Consequently, what a fish is may change across times and spaces. Two issues illustrate this: The politics of fish welfare suggests that fish is not only an economic resource, but has become a sentient being. Second, fish is not only full of omega-3 fatty acids and vitamins, but has become risky food by being linked to environmental contaminants. The paper will propose ways of analysing these changes and their effects. A Norwegian *risk assessment* of the overall health effects of eating fish, will serve as a case-study.

## Parallel Session 4 Friday 13.30- 15.00

### **Panel 1.4 Enabling Changes in Natural Resource Governance**

*Chair: Robin Mahon*

rmahon@caribsurf.com

#### **Enabling Self- Organisation for Good Governance in Fisheries**

*Robin Mahon, Patrick McConney and Rathindra N. Roy*

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The Interactive Governance Approach recognizes that fisheries systems are seldom predictable or controllable as they have been viewed in conventional approaches and that they have to be approached differently. Complex systems often exhibit the capacity to self-organize or adapt, even without outside influence. If this is true of fisheries, it should lead to a radically different approach to management of fisheries systems that places much emphasis on enabling self-organization, learning and adaptation. Many current approaches to capacity building address these enabling needs but lack the context that an ‘enabling self-organisation’ perspective can provide. This perspective calls for development of a practical framework for interventions to enable change

#### **Enabling Governance: Focusing on Linkages at the Local and Ecosystem- wide Levels**

*Larry Hildebrand and Lucia Fanning*

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Environment Canada

In the past, the development of government-formulated coastal zone management plans have met with limited success since these plans were primarily driven by top-down approaches at the national or provincial levels, lacking both a focus on the community level as well as the ecosystem-level. In response to this deficiency, Environment Canada initiated the Atlantic Coastal Action Program (ACAP), a unique community-based program, to help Atlantic Canadians restore and sustain watersheds and adjacent coastal areas. The fundamental basis for ACAP is the recognition that local communities are the best and most effective proponents for effective action leading to sustainable development. Building on the successes at the local levels with site-specific partners and the recognition of scale as a key factor in achieving sustainability, Environment Canada works in a similar way with larger, ecosystem-based coalitions. The regional ecosystem-based partnerships we currently focus on are the Canada-US Gulf of Maine Council on the Marine Environment; the Bay of Fundy Ecosystem Partnership (BoFEP); the Southern Gulf of St. Lawrence Coalition on Sustainability; and the Eastern Scotian Shelf Integrated Management Initiative (ESSIM). By pursuing a local and regional approach to achieve ecosystem-wide governance, lateral linkages at both the local and regional levels are established while essential vertical linkages ensure bi-directional flows of information, analysis and advice are taken into account at critical decision-making points, thereby enhancing the potential for effective governance.

#### **Using Fishers’ Knowledge in the Assessment of Fish Stocks**

*Tim M. Daw*

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Newcastle University

United Kingdom

There is widespread interest in the incorporation of fishers’ knowledge (FK) into fisheries management, both from the perspective of moving toward participatory fisheries governance, and to make use of FK in the light of the limitations of formal knowledge systems. I trialled a questionnaire based approach to stock assessment in two artisanal fisheries in Seychelles (ParFish). An apparent cognitive dissonance resulted from comparing fishers’ qualitative perceptions with their answers to quantitative stock assessment questions. This dissonance can be partially resolved by taking account of the cognitive model of the fishermen, which differs markedly from

conventional fisheries science. This illustrates some of the difficulty of ‘extractive’ uses of fishers’ knowledge and the importance of ‘cognitive conflicts’ in co-management of fisheries resources.

**In Principle or Practice? The Relationship between Participation and the Ecosystem- based Approach to Fisheries Management**

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The relationship between the principles of participation and the ecosystem-based approach to fisheries management is contested. A common assumption in the policy context and in related literature is that both principles are valuable and that they naturally go together. However, while much work has been done to examine the value of these two principles independently of each other, no definitive attempt has yet been made to explore and clearly identify the relationship between them. This paper draws on several recent European projects to explore the assumption of a connection between participation and the ecosystem-based approach. In doing so, we identify four basic formulations of the relationship between participation and EBA: 1) they are logically linked; 2) they are ethically linked; 3) they are instrumentally linked; and, 4) that they are separate but complementary. The paper draws practical conclusions for the future implementation of an ecosystem-based approach to fisheries management.



## **Panel 2.4 Wind Farms and Coastal Governance**

*Chair: Maarten Wolsink*

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### **Ownership of Process versus Ownership of the Resource: Local Residents and the Offshore Wind Farm Development on the West Coast of Schleswig-Holstein**

*Kira Gee and Katharina Licht*

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Social Science Research Center Berlin

Germany

In Germany, large-scale offshore developments have triggered a debate on who decides on the future of the sea and what criteria are used to take such decisions. This paper attempts to assess both questions through the concept of ‘ownership’. Using offshore wind farm development in Schleswig-Holstein as a case study, it begins by analysing ownership in terms of process, highlighting which stakeholders are involved in the offshore wind farm consent procedure and their relative influence. It then looks at the emotional ownership of the sea, with particular focus on local residents and the values that drive this ownership. What emerges is an imbalance: Whilst local ownership is strong and based on a set of core values, it is precisely these stakeholders and supporting values that are not included in the decision-making process. The paper concludes by offering suggestions for translating local ownership of the resource into greater ownership of process.

### **Navigating in a Sea of Concerns: Knowledge-based Decision-making in the Coastal Zone**

*Ingrid Hjelle*

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Norwegian College of Fishery Science

Norway

Localizing activity in the coastal zone involves organizing a knowledge base of particular value related to the context of each project. Exactly what kind of knowledge is needed and where to search for it is not obvious. Neither is it always clear, who should provide it, and how. Certain projects require an impact assessment (IA), containing basic information on selected topics. Drawing on experiences from the process of localizing a windmill park in the coastal waters of Western Norway, I discuss challenges with regard to the provision of an acceptable knowledge base for decision-making in coastal zone matters. The IA may contribute to discovering shortcomings by making visible what is available knowledge. I argue that an IA might function as a starting point for discussion as stakeholders are challenged to get involved by pointing at insufficiencies and provide additional information.

### **The Usefulness of a Co-management Approach: How to govern a Wind Farm- Mariculture Interaction?**

*Tanja Michler*

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Alfred Wegener Institute for Polar and Marine Research (AWI)

Germany

In offshore waters of the German North Sea multiple stakeholder activity is increasing in both type and intensity. Newcomers such as wind farming make for additional claims and exclude, due to current legal restraint, traditional fisheries. Against this background an integration of marine aquaculture within designated wind farm areas might provide chances to combine two industries in the frame of a multiple-use concept. This paper addresses the different stakeholders perceptions of this multiple-use scheme and assesses the usefulness of a co-management concept for governing potential interacting wind farm – mariculture activities. First results reveal that for design and refinement of suitable management arrangements as well as the for the formation of legitimate regulations the respective key actor groups have to be fully incorporated as active research partners. It also becomes apparent that without sound proofing the economic and technical feasibility of such multi-use areas little engagement into arranging suitable management forms can be expected.

### **Panel 3.4 Job Satisfaction in Capture Fisheries: A comparative Study II**

*Chair: Maarten Bavinck and R. Pollnac*

#### **Job Satisfaction on demersal Fisheries in Bubaque (Guinee-Bissau)**

*Raul Mendes-Fernandez*

Universidade de Coimbra  
Portugal

This article wishes to analyze the applicability of Job satisfaction surveys in a non-western context, focusing on demersal fisheries in Bubaque, Guinea-Bissau. The Job satisfaction survey is divided into five categories; basic needs, social needs, self-actualization, management and the value of nature. In addition to the surveys semi-structured interviews were conducted with the fishers to identify factors that could influence a job satisfaction survey in a non-western context, factors that might open the discussion on the use of Job satisfaction surveys in a non-western context. The analysis regarding the application conditions of the survey, and the relationship between the researcher and the fisher helps to clarify the epistemological value of the techniques employed. The paper wishes to investigate the different possibilities available to reach the objectives of job satisfaction, particularly on management, in different contexts of governance with different types of relationships between producers, civil society and state and the possibility to integrate gender in the analyses. Finally, the paper investigates the scoring of job satisfaction with regards to the different categories, the best and worst scoring items and his relation with the position of a fisher (crewmember, captain and owner).

#### **Job Satisfaction in the Trawler and Longline Fisheries of Chennai, India**

*Maarten Bavinck*

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University of Amsterdam

Centre for Maritime Research (MARE)

The Netherlands

The fishing harbour of Chennai, Tamil Nadu, counts approximately 450 inshore trawler crews, primarily fishing the grounds of southern Andhra Pradesh. The harbour also hosts a small-scale fishing fleet, including a contingent of longline fishers. This paper reports on a recent survey of job satisfaction among trawler and longline fishers in Chennai fishing harbour, analyzing the results in the context of the vagaries of capture fishing in the region. The paper extends the analysis of job satisfaction to female fish traders and examines the utility of survey instruments designed for the fishing profession to trade. The overall purpose is to contribute to the effort currently being undertaken by the ECOST project to integrate job satisfaction into the valuation of fisheries.

#### **Job satisfaction amongst Fishers of the Dominican Republic**

*Victor Ruiz*

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Dominican Republic

#### **Panel 4.4 Impact Assessment and Communication in Fisheries Management**

*Chair: Derek Johnson*

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##### **Assessing Social Impacts of Fisheries Management Plans: Towards a Methodology**

*Nicki Holmyard, Jenny Hatchard and Luc van Hoof*

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North Sea Women's Network

United Kingdom

The introduction of long-term management and recovery plans for fish stocks will have social impacts on fisheries and fishing communities. It is likely that these will vary geographically, sectorally and temporally, with different impacts experienced in the short, medium and long-term, thus their assessment as part of the decision-making process is vital. This paper discusses a framework for conducting an assessment of societal impacts of fisheries management plans on fisheries and fishing communities. First, the parameters of the societal analysis are outlined; second, the key terms 'resilience' and 'reliance' are examined; third, a proposed methodology for conducting the analysis is discussed; and fourth, the data requirements and further research essential to underpin this approach are outlined. The paper concludes that the framework, by looking in turn at industry, community and institutions, makes it possible to predict social impacts and to analyse the capacity of social structures to respond and adapt to change. This in turn allows recommendations to be made for changes within management plans, or for the inclusion of additional social measures.

##### **Do they Fish where we Think they Fish? How to Translate Approaches and Communicate between Disciplines in Dealing with Coastal and Maritime Issues**

*Mecki Kronen, Franck Magron, Aliti Vunisea, Lindsay Chapman and others*

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Community Fisheries Scientist Reef Fisheries Observatory

New Caledonia

The widely accepted goal of a holistic management of marine resource recognizes that management must deal with the full set of ecological consequences of an activity and an understanding of the social and economic implications of the activity for society. As a result fisheries management demands interdisciplinary and cross disciplinary research and communication, as well as integration and communication amongst all stakeholders. The coastal component of the European Union funded Pacific Regional Oceanic and Coastal Fisheries Development Program (PROFish-C and COFish) was designed to respond to this need. Its major objective is to develop and apply a first ever inter- and multidisciplinary methodological approach that results in the provision of a regional database of current resource and user status, and that allows the combined analysis of these datasets to render useful indicators and proxies for improved fisheries management of coastal reef fisheries in the Pacific. PROCFish-C/COFish combines both, biological and ecological field research and scientific investigations as well as traditional and current knowledge of local fishers.

To date, investigations have been implemented in over 50 communities, distributed over of 13 Pacific island countries. A comparative methodological approach was jointly developed between scientists from biological, ecological and social disciplines involved. Experiences made, however, revealed not only major challenges in adopting cross-disciplinary approaches but also limitations that accrue if combining scientific results and data collected from traditional fishers.

We will use some of our data collected, to illustrate the challenges to translate approaches and to communicate between disciplines, and to cross the bridge between research and practice. The different understandings, for instance, of a "habitat or a fishery" between scientists and fishers is crucial to investigate the effect of fishing on the resource status and to develop effective management decisions. Fishing impact of small-scale and subsistence fisheries is very much dependent on the knowledge of fish species targeted and caught, and the understanding of fishing strategies. We will show, as an example, the scale of the bias between scientific and vernacular fish names encountered in the Pacific and its possible consequences for effective resource governance.

**Community Based Data Monitoring: The Importance of Community Participation in Fisheries Co-management in South Africa**

*Adriana Rosa Carvalho, Samantha Williams, Mariam January and Merle Sowman*

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University of Cape Town/State University of Goiás

South Africa/Brazil

The transition to democracy in South Africa has provided opportunities for historically disadvantaged communities to access resources unequally distributed in the past. The Marine Living Resources Act (1998) is one such policy aimed at creating more equitable access to marine resources. However, research suggests that post-apartheid policy and legal reform in the fisheries sector have neglected artisanal fishers, still impeding their access to fisheries resources and management thereof as well as overlooking their role as partners in the assessment, monitoring and management of the resources. In this paper the analysis of information generated by a community based monitoring programme at the Olifants River estuary, Western Cape, South Africa confirms the value of involving local fishers in the data collection and analysis. Furthermore results demonstrated that fishers do not exploit juveniles of the target species and provided useful information to challenge government policy proposals to implement a total ban on gillnetting in all South African estuaries.

## **Round Table Session      Empowering Sustainability: Science on People and the Sea**

*Chair: Cornelia Nauen*

Research projects working in participatory and critically engaged mode with diverse stakeholders show highest levels of societal effects and policy relevance. This is the result of feedback from international scientific cooperation activities touching on fisheries, coastal zones, wetlands and aquaculture through three successive European Research Framework Programmes (FP4, FP5, FP6 - 1994-2006). The round table will illustrate examples from different cultural and socio-economic settings and explore how initial positive experience can be scaled up. Possible follow-up activities to provide knowledge for operationalising the ecosystem restoration agenda of the Johannesburg Plan of Implementation will be discussed. The debate should include a strategy for broadening the process through, e.g. involvement of a wide public through e-conferences, other media and association of creative young adults through arts activities.

*Presenters:*

- Joao Ferreira (SPEAR project with China and engagement with companies and authorities at grand scale);
- Amanda Stern-Pirlot (INCOFISH about Fishruler, support to Marine Stewardship Council and Lidl's recent decision to buy from sustainable source);
- And others



## Parallel Session 5 Friday 15.30- 17.00

### Panel 1.5a Assessing the Governance of Fish Chains

Chair: R. Pullin and S. Jentoft  
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#### Unpacking Power in Adaptive Co- Management: A Case Study of Cambodian Fisheries

Melissa Marschke, Nigel Bankes, Jennifer Allison Fresque, Derek Johnson and Bryan Poirier  
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United Kingdom

This paper has been triggered by two processes: 1) an ongoing dialogue about the meaning and application of adaptive co-management (ACM) ([http://www.resalliance.org /Working Group/ACM](http://www.resalliance.org/Working%20Group/ACM)); and, 2) a specific attempt, arising out of that dialogue, to chart the relevance of power for ACM. Highlighting power within the ACM process raises important methodological and epistemological questions that this paper seeks to address through application to the case of fisheries management in coastal and inland Cambodia. This case illustrates a policy – practice disconnect. Power forces researchers and practitioners working within an ACM framework to examine challenging questions related to the intersection of practice and position. This paper offers observations on the distribution of power within the context of ACM. We hold that the tensions that these questions raise are fundamental to the very notion of ACM, which aspires to integrate multiple epistemologies of human-nature interaction.

#### Fisheries Governance in the Eastern Caribbean: Network and institutional Perspectives on Policy

Patrick McConney  
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University of the West Indies  
Barbados

The governance of small-scale fisheries in the eastern Caribbean often lacks the interactions among stakeholders needed to sustain fisheries management. Weak institutions, poor leadership, inadequate information and limited capacity are reasons given for low levels of government and non-governmental stakeholder engagement in dialogue and action related to fisheries. Small, low status government fisheries units have tenuous links to public sector policy and resource users. Other stakeholders, such as in tourism, may be more connected to policy, marginalizing small-scale fisheries even in the context of integrated coastal management. These issues may be researched from institutional and network perspectives, and addressed by building institutional capacity and learning along with networks and policies for improving interactive governance.

#### Politics, Legal Pluralism and Conflict Management: Evolving Negotiations of Marine Fisheries Governance in Kerala, India

Dr. K.T. Thomson and Baiju. K. K  
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Resource crisis in Kerala fisheries has been increasing since 1980's resulting in the escalation of conflicts among primary producers. Unfortunately formal legal processes failed miserably to resolve these conflicts. Instead, primary stakeholders' resorted to political negotiations outside the legal framework to address these issues. These negotiations derived socially acceptable resolutions for achieving management targets. This paper highlights the nature of the political processes that generated and sustained legal plural institutions and various adaptive strategies of both communities and private industry. Examining the present level of community, industry and state interactions, we argue that coastal fishermen along Cochin coastal zone of Kerala, India, evolved poly – centric institutions and strategies that not only regulated fisheries but also sustained their livelihoods. Legal pluralism is probably the only viable institutional alternative for better resource management along the west coast of Indian peninsula. Paper begins by documenting various fishing conflicts in this region, lists the formal sets of institutional arrangements and narrates the political negotiations for conflict resolution. It is argued that legal pluralism is unavoidable for marine fisheries governance.

## **Panel 1.5b Transition Towards Sustainable Fisheries**

*Chair: Jan Willem van der Schans*

### **Fisheries Self- Management and Nature Conservation**

*Jan Willem van der Schans*

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Wageningen University

The Netherlands

This paper addresses the question to what extent fishermen self-organisation can contribute to maritime nature conservation. There are many cases in the literature where fishermen self-organisation contributes to stock preservation. Are there also cases where fisheries self-organisation contributes to maritime ecosystem conservation? This paper does not provide exhaustive empirical evidence to answer this question, but rather its purpose is to review the fisheries management literature in order to provide a conceptual basis for the analysis of empirical cases provided in the other papers. The paper consists of three parts: a conceptual part in which the literature on co-management will be reviewed, an empirical part in which the relation between co-management and nature conservation will be explored, and an analytical part in which the points raised in the conceptual part will be used to discuss the cases introduced in the empirical part. In order to answer the question we first review the literature on fishermen self-organisation or co-management. Co-management involves the sharing of management responsibilities between government and fishermen organisations (Jentoft 1989). As fishermen become actively involved in co-management decision making, this will improve the quality of decision making, as well as its legitimacy, hence its adequacy and effectiveness (Jentoft and Mikalsen 1994). Co-management is often presented as an innovative alternative management instrument which is more effective than classical state-initiated instruments such as administrative rules (e.g. gear restrictions) and/or property rights (e.g. individual transferable quota; Dubbink and Van Vliet 1996). We conclude however that co-management is not so much an alternative management instrument, but rather it indicates an alternative approach to management decision making, whether it includes state-initiated rules, market-based instruments, voluntary agreed constraints, or any combination of these. This alternative approach embodies the notion that the quality of decision making should not only be judged in terms of performance criteria (effects on stocks or fishing communities), but also in terms of process criteria (to what extent are basic principles of good governance observed?).

Next we introduce the ecosystem approach to fisheries management. The ecosystem approach entails an explicit recognition of the complexity and dynamics of marine ecosystems and of the interconnections among its component parts (FAO 2003a). On this account fish stocks cannot be singled out as isolated management units, as has been done in fisheries management more traditionally, but rather fish stocks are integrated parts of larger ecosystems, which have an impact on fisheries as well as are impacted by fisheries. There seems to be an intimate –as of yet not very well understood however- connection between over-all ecosystem health and fisheries productivity. Apart from that, ecosystem conservation as part of wildlife management has become a legitimate management goal in its own right, not just in the terrestrial but increasingly also in the aquatic environment. There are several ways in which public as well as private parties, including fishermen themselves, can contribute to maritime nature conservation. The institution of marine protected areas is one such way, which will be elaborated in this paper, the certification of ecosystem-friendly fisheries practices is another one, to be discussed in another paper of this report. Several cases of co-management which include nature conservation will be discussed, while we make use of the points raised in the conceptual part of this paper. This paper concludes that private sector self-organisation can indeed contribute to maritime nature conservation, and it should be pursued more systematically in order to bring about a transition towards more sustainable fisheries.

### **Transitions in European Fisheries Social Science's Topics 1960-2005**

*Ellen Hoefnagel*

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The Netherlands

This paper presents a historic overview of European fisheries social science publications of the period 1960-2005. It describes shortly the main disciplines and theoretical approaches within the social sciences with relevance to the European fisheries. It focuses especially on the transition in topics of European fisheries social science, based on bibliographical studies. Social scientists criticized top-down fisheries management and technocratic solutions to fisheries management problems. The last two decades many studies centre around the



themes: co management; participation; stakeholders; and governance, that also are linked to compliance and legitimacy issues. The last decade a new topic is the discussion on the knowledge base of fisheries management and the use or omission of various types of knowledge (a.o. local knowledge) and disciplines in fisheries management.

Next to this the paper discusses the research infrastructure and type of research projects funded under the European research framework programmes and European Commission tenders.

Because the social sciences are not yet fully accepted in the EU policy and research arena, the paper states that social-cultural studies are complementary to economic and biological studies, because it approaches fisheries problems from the human and institutional angle. Social sciences can contribute independently towards the social-cultural and institutional analysis of fisheries problems. The conviction of the importance of multi disciplinary research approaches is growing. That's why social scientists should be more involved in European research programmes pertaining to fisheries management. The research infrastructure would be enhanced by the establishment of a European social science fisheries organisation or network.

### **Pulse Fishery**

*Kees Taal*

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Is there a more environmentally friendly and economic alternative for the beam trawl fishery on flatfish? Whereas in the past technological development of fishing gear and fishing methods was aimed to increase production, the present situation is quite different. Many stocks are over-fished and the possibilities to expand fishery of underexploited resources are very limited. Apart from that, concerns about the environmental impact of fisheries are growing more and more. The development of gear is now much more focussed on catch selectivity and the reduction of negative impact on the environment.

The traditional beam trawl is the most commonly used fishing gear in the Dutch North Sea fisheries, mainly to catch flatfish such as sole and plaice. Recently an experimental project on pulse fishery was started in the Netherlands. Pulse gear is a low-impact fishing gear, which uses weak electrical impulses to stimulate flatfish rather than the heavy chains used in traditional beam trawling. One Dutch beam trawler used pulse gear to catch flatfish and during the trips, research was done in the field of effects (saving) on benthos, discards and selectivity, fuel consumption and the quality of caught and landed fish. Fishing effort, catches, prices of fish, (extra) investments and costs and earnings were monitored during this period and outcomes were compared with those of reference vessels. During the experiment, fuel prices rose to a very high level.

In this paper, the pulse method is explained briefly and the first economic results and opportunities and threats for the Dutch fishery sector are presented. Some observations are made about the introduction of the new gear in relation to the transition towards sustainable fisheries.

More studies on effects on ecology and economic performance of pulse fishery are still going on and the first results will be published soon. Apart from that, new projects are started to properly embed the new technology structurally in EU regulations and investment programs, to create a distinctive market perspective for the high quality fish landed with the gear, and to improve the ecological and economic performance of the gear in cooperation with fishermen and relevant NGOs.

## **Panel 2.5 Marine Space: Social Theories, Practices and Boundary Making**

*Chair: Leontine Visser*

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### **Representing the Coastal Zone**

*Geir Karlsen*

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Numerous publications have discussed the development of the coastal zone in light of different analytical constructs such as “local”, “national”, “community”. These, and similar concepts, assume the existence of social differentiation and have spatial connotations. However, such concepts may contribute to obscure the analysis of the coastal zone as an empirical unit because the concepts in themselves are not operational in the realities faced by today’s coastal zone. Thus, important facets of the modern coastal zone may not be represented in the analysis due to mono-operational bias. Here, the use of different analytical concepts is surveyed and then compared to the results of an empirical analysis of data from coastal municipalities in Norway in order to illustrate the problem. This is used to discuss the methodological consequences of mono-operational biases in coastal zone research, arguing for a wider conceptual framework in the analysis of the coastal zone.

### **Challenges and Opportunities for the Evolution of an Integrated Coastal Management Plan in Post-Tsunami Aceh, Indonesia**

*Dedi Supriadi Adhuri and Alexander Tewfik*

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The post-tsunami environment in Aceh provides some opportunities for improved coastal management. The damage to fishing assets and associated infrastructure has significantly decreased the level of resource exploitation. Also, the scale of the disaster caused by the tsunami and the resulting generosity of the public response has allowed many agencies with different expertise and capabilities to contribute to marine and coastal rehabilitation and re-development. The combination of these two factors (opportunity & resources) may produce good opportunities for improved resource management. However, given the variety of different opinions, expectations, interests, commitments and procedures within the Achenese communities, government and aid agencies potential conflicts may arise. This paper will discuss these complexities and some initial attempts to facilitate the evolution of an Integrated Coastal Management plan that provides sufficient security to natural resources and dependent communities

### **Governing ‘Spaces of Interaction’: Linking economic Flows and the Politics of Place for Improved Tropical Shrimp Aquaculture**

*Simon Bush*

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Cultured tropical Shrimp is a globally traded commodity which continues to have serious consequences for coastal habitats and local communities in developing countries dependent on them for food and income. Reducing the impact of shrimp aquaculture has drawn considerable attention from both governments and industry players who wish to improve the performance of production while maintaining export led economic growth. Their efforts have led to the flourishing of a broadly defined set of ‘trade-based’ governance tools, including third-party certification and consumer choice guides, have had success in improving both quality and safety of food production and are now diversifying to also include social and environmental performance. While a variety of governance tools aiming to improve the performance of marine fisheries production within Europe have proven somewhat effective, there has been less success when dealing with globally traded commodities such as tropical Shrimp. Examining the new dimensions of local-global international trade this paper introduces ‘spaces of interaction’ to investigate how actors negotiate access and participation in commodity networks. In doing so, key themes within space and governance are incorporated to develop a clearer understanding of the complex intersection of global economic flows and the local politics of place. It is concluded that for trade-based tools to be effective at a global scale complex local processes must be better incorporated into not only the governance of shrimp production, but also the wider processes within coastal areas.

### **Panel 3.5 Fisher Cultures in Transformation**

*Chair: Petter Holm*

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#### **Refurnishing the Coast: The Invention of the Tourist- Fisher**

*Kristin Berg Nordstrand and Petter Holm*

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The fishing industry is perceived as an economic sector in which professional fishermen catch fish for processing and marketing. This side of the industry will continue to be important, but not as dominant as before. An important change agent is the closing of the fisheries commons. This closing has had to different effects. The sector is transforming from its traditional form into a modern capitalist sector. And it has left fishing as a leisure activity open for commercialization. In this paper, we shall argue that these two forms of fishing are interacting in interesting ways. Fishing will not necessarily stay as two separate activities lodged in separate economic sectors. Instead, tourism will increasingly be organized as a separate product within the fishing industry. The tourist-fisher can transform the industry, and be a part of the post-closure refurnishing of the coastal landscape.

#### **Responsible Tourism Concept in the Coastal Communities of the World Heritage Site and Protected Territories**

*Ausrine Armaitiene and Ramunas Povilanskas*

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Responsible tourism concept is one of a key concepts in the development of livelihoods of local communities in World Heritage Sites and protected territories. This paper presents different levels of willingness to develop responsible tourism by hosting communities in Curonian Lagoon Lithuanian and Russian parts, as acknowledgement of the aesthetic and conservation values of dune and coastal landscapes of the Curonian spit as a World Heritage Site and Nemunas Delta as protected territory. The consideration of the problem is based on four different types of perceptions of 'nature and culture' and 'nature tourism' among the hosts and tourism service providers in the territory. The results of investigation were reached using qualitative research methods – focus groups and semi-structured interviews. The paper concludes with a dedicated awareness building program for local tourism service providers in nature conservation and provision of specific interests tourism services on the Curonian lagoon.

#### **Booms and Busts in the Icelandic Herring Fishery: 1904-2004**

*Thorir Sigurdsson*

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The herring fishery in the North Atlantic has for centuries been characterized by great fluctuations. The largest stock, the Atlanto-Scandian herring, was utilized in Norway for a long time before it was detected off Iceland and later found to migrate across the ocean between the two countries. The Norwegians introduced modern methods to catch and process herring in Iceland where it gradually became a big industry with salting stations and reduction factories. Towns developed along the north and east coasts and many people's livelihood depended on this small fish. After a technological revolution in the 1950s and a oceanographic shift in the 1960s the fishery crashed and left some of these places desolate. Other industries could not replace the herring and frustrated people moved to other parts of the country. The poster will describe this history graphically in demographic, economic and social terms with emphasis on the "herring capital" Siglufjord.

## **Panel 4.5      Sharing or Commanding Coastal and Near Shore Space**

*Chair: Bob Pokrant*

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### **The Administrative Ordering of Nature and Society: Reflections of Bangladesh' New Integrated Coastal Zone Management Plan**

*Bob Pokrant*

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Integrated coastal management strategies (ICMs) claim to provide an improved balance between development, conservation and participation objectives. Studies suggest ICMs work best under the following conditions: community participation and early recognition of benefit; mechanisms to ensure equity in distribution of benefits and resolution of shareholder conflicts; introduction of ecological principles into community management models; vertical integration of governance levels; long term financial, staff and institutional commitment to ICM objectives; and proper monitoring systems to ensure compliance with ICM objectives.

Bangladesh is in the early stages of its Integrated Coastal Zone Management Plan. This paper assesses how the Plan addresses the condition of community participation and integration of fishers and shrimp farmers into the process. Drawing on the work of Bruno Latour and David Mosse, it argues that the model and institutional mechanisms designed to facilitate participation are unclear, running the risk of a return to earlier command-and-control governance structures.

### **Share the Bay: Who is to Blame for Coastal Resource Degradation in Jakarta Bay Area?**

*Suzy Anna and Akhmad Fauzi*

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Jakarta Bay located in the north coast of Jakarta is well known for its polluted ocean environment. The bay, however is an important fishing ground for thousands of traditional fishermen living along the coastal area of the capital city. The livelihood of these people is very much depends upon resource availability in the area. Nevertheless an uncontrolled pollution has jeopardized their livelihood. In addition, the plan by government to do reclamation in the area has furthered reduce the economic opportunity of the fishermen. The reclamation will also displace around 125000 fishermen living around the bay. This paper attempts to address the issue using bioeconomics and simulation models. Institutional and governance aspects will also be addressed to solve the chronic problems in the bay.

## Parallel Session 6 Saturday 09.00- 10.30

### Panel 1.6 Cyborgisation and Managerialism in North Atlantic Fisheries I

Chair: Dean Bavington and Jahn Petter Johnson  
dbavingt@umich.edu, Jahn.Johnson@nfh.uit.no

#### Professionally Husbanded & Harvested from Egg- to- Plate Fisheries Managerialism and the Blue Revolution in Newfoundland & Labrador Cod Fisheries

Dean Bavington  
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University of Michigan  
United States

This paper places the development of full cycle industrial cod farming in Newfoundland and Labrador within a history of wild cod fisheries management and the wider managerial and cyborgisation processes of which it and other projects of the Blue Revolution are intimately connected. The paper begins by briefly tracing the history of the idea that fisheries ought to, and could, be managed. Particular attention is paid to the scientific representation of codfish, the fisherman, and the practice of fishing that enabled managerial interventions into the cod fisheries of Newfoundland and Labrador from the 1880s up to the collapse of Northern cod stocks in 1992.

The paper argues that *scientific ideas* about the codfish, the fisherman and the act of fishing that are central to modern fisheries management, came into actual *material and discursive existence* in Newfoundland and Labrador only with the demise of wild cod and the emergence of full-cycle industrial cod farming in the post-92 period. To back up this bold assertion, the paper is divided into three sections. The first section begins by discussing how the single species fish population, an idea developed by Freidrich Heincke (the father of fisheries science) at the turn of the 19<sup>th</sup> century, was *made real* a century later on the industrial cod farm. The second section illustrates the odd disconnect that exists between the representation of wild and domesticated cod. While cod farms materially express the idea of single species populations that were scientifically imagined to exist in the wild at the end of the 19<sup>th</sup> century, contemporary fisheries scientists now deride this view as simplistic arguing that cod are elements embedded in complex ecosystems. The third section addresses how the *ideas* of Scott Gordon, father of fisheries bioeconomics, have come to be expressed through discourse and fisheries policy. This final section argues that by representing fishing solely as an economic activity and fishermen's identity through the simplified image of the rational economic actor, Gordon's ideas prepared the ground for fishing to be understood primarily as a harvesting as opposed to a hunting activity, and fishery management policies that target fisher-identity through mandatory professional fish harvester retraining and certification programs.

The paper concludes with a discussion of the need to understand, challenge and ultimately move beyond the cyborgisation and managerialism inherent in egg-to-plate cod farming, professional fish harvesting, and other dreams of the Blue Revolution. Attention is paid to the alternative possibilities that exist in the words and deeds of Newfoundland and Labrador fishing people who have resisted the use of fishing and processing tools that they have deemed inappropriate and unfitting for their character, the practice of fishing, and the well being of codfish from the 1850s up to the present.

#### Fisheries System in Change: Towards Cybernetic Organizations in the Fisheries

Jahn Petter Johnson, Grant Murray, Barbara Neis, Petter Holm  
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Norway

Why is fisheries management still disputed? Using case studies from Norway and Newfoundland and Labrador, this presentation explores the possibility that there is a relationship between ongoing disputed fisheries management and the way fisheries management policy systems understand and conceptualise "system change." During the 1990s the fisheries system and actors in Norway and Newfoundland and Labrador (NL) changed radically parallel to developments in management practices and goals. Fishery ownership, practices, technology, local embeddedness, labour requirements, organisation, fleet structure, power relations, economic, biological and political frameworks all changed substantially in both locations starting in the 1990s. One way to think of these changes is that, taken together, they have replaced organic systems with more cybernetic systems and created

new kinds of actors. Fisheries management policy, however, still treats the system and the actors in the same way as before these changes took place. The presentation describes the production of, as well as the attributes and boundaries of these fishing *Cyborgs* and points to the need for a conceptual redefinition of actors in the fisheries as the basis for reducing conflict associated with fisheries management.

**Performing Natural Kinds: The Adventures of a Cyborg Fish**

*Petter Holm*

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University of Tromsø

Norway

A theory can be said to be performative if its correspondence to the things it is about originates as an adaptation of these things to the theory. This makes the notion of performativity non-conventional, at least when it comes to scientific theories, since the dominant understanding is that theories should imitate reality rather than the other way around. So far, the notion of performativity has primarily been explored in the realm of the social sciences, and in particular economics (Michel Callon). This is an obvious choice, since an important kind of entity featured here is people. People are, as Ian Hacking has it, interactive kinds. In this presentation, I will explore the limits of performativity by taking on a non-human and partly natural entity, namely the managed fish stock. My label for this creature, “the cyborg fish” suggests that while fish used to be a natural kind, and we still tend to think of them as indigenous in the natural world, they have been radically reconstructed in the effort to make them manageable. Does it also make sense to say that the cyborg fish is performed, implying that it has been reshaped according to some identifiable theory? And what, in that case, is gained by seeing the fish in this way?

## **Panel 2.6 Managing Change in Fisheries: Challenges, Impacts and Conflicts**

*Chair: Sarah Coulthard*

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### **Fishing for Fish...or Tourists? - Divided Allegiances and Growing Conflict in a Traditional South Indian Fishery**

*Sarah Coulthard*

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Global fish stocks are currently in a state of crisis. Subsequently, a common management response is the desire to reduce over fishing by the 'removal' of the fisher from the fishery. Developing alternative livelihoods for fishers is hailed by many as a solution to dwindling fish stocks. Furthermore, traditional associations between artisan fishing and high levels of poverty mean that 'alternative livelihoods' have also been subsumed as a part of development and poverty alleviation strategies. However, what does this livelihood change really mean to the fisher and his or her family? This question surely will determine the capacity of 'alternative livelihoods' to develop as a sustainable and workable solution for fisheries managers. This paper will explore several decades of change in a South Indian fishing community. Pulicat lake is India's second largest lagoon and, despite a unpredictable fish productivity, supports approximately 30,000 full time artisan fishermen and women. The paper argues that historically, the state has had significant influence over the fishing way of life through the development of prawn fishing and export. In the last few years Pulicat has witnessed a shift in interest by the state – from fishing to tourism. This has left a bemused and increasingly tense fishing society as people decide whether to stay loyal to their fishing heritage or try to exploit new tourism opportunities. The paper uses Pulicat lake as a useful setting to deconstruct some of the societal and cultural dynamics behind the ability, capacity and willingness of fishers to diversify their livelihood, with discussion on implications for fisheries management and policy.

### **Changing Property Rights and User Patterns in the Central Baltic Archipelago: Implications for Sustainable Governance**

*Monica Hammer*

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Sweden

In this paper, the implications for sustainable governance of changing property rights and user patterns in coastal social-ecological systems are addressed using an ecosystem management perspective. The paper focuses on examples from the central Baltic Sea coastal region. As the transition from small scale coastal communities surviving on a mixture of local resources towards more recreational and urban dominated systems continues, the coastal ecosystem faces new challenges that may affect the delivery of ecosystem services. The intensification in recreational activities, for example in Stockholm archipelago, has led to changes in rights to access to shores and fishing areas altering use patterns that may also change feedback links between ecological and human systems affecting management. The significance of an increased understanding of the links between various socio-economic driving forces structuring the way of life and the consequences for the natural environment is discussed.

### **Making Markets? The Development of the Norwegian Quota Regime**

*Dag Standal*

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According to the UN's Food and Agricultural Organization (FAO), overcapacity is regarded as one of the most prominent problems in today's fisheries. The fishing fleet become marginalized and overcapacity creates distributional conflicts between different gear- and vessel-groups. In addition, both the costs for administration and resource control increase. In order to cope with the problems related to overcapacity in Norway, the quota regime have developed from a stiff IVQ-regime with no flexibility regarding transactions of quotas, to stepwise changes towards a market orientated quota regime. In this paper we outline the effects of the changing quota regime and we discuss the institutional status of today's system.

### **Panel 3.6 Governability, Institutional Design and Conservation: The Case of Marine Protected Areas**

*Chair: José Pascual-Fernández*  
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#### **Governance, Stakeholder Participation and Marine Protected Areas: Challenges in Tenerife (Canary Islands) and Galicia (Lira and Cedeira)**

*Karyn N. Rodrigues-Henriques, José J. Pascual-Fernández and Antonio Garcia-Allut*  
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Spain

On comparing different cases of MPAs in Spain, the relevance of the stakeholders participation may be completely dissimilar, and even the definition of who the stakeholders concerned are may differ. In the case of the protected marine reserves in Tenerife, the main stakeholders recognised by the administration are the professional fishermen of the nearby areas. Many other activities are developed in these same areas (recreational fishing, marine mammals sightseeing, etc.), compromising the governability of the MPA, or even their inception if not taken into consideration. In Galicia one MPA has been recently implemented in Lira, and another is being planned in Cedeira, through the initiative of fishers organizations. In this paper we will try to analyse the differences between these cases, and the limitations of the governing system within the law for coping with this complex organization.

#### **From Open Acces to Co- Management: An Alternative Institutional Design for regenerating Shell- fish Resources in Galicia (Spain)**

*José J. Pascual-Fernandez, Katia Frangoudes, Begoña Marugán-Pintos*  
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Spain

Shellfish gathering in the beaches has traditionally been in Galicia an activity developed in a regime close to open access. However, in the last decades this situation has changed, and nowadays many areas where this activity is developed are in a situation of active co-management, with a sort of license system. Shellfishers' organizations plan and control the exploitation, even using seeding techniques to regenerate areas that were previously degraded. In the last decade, with the support of the administration, they have avoided the overexploitation and managed the marketing of the shellfish much better than ever before.

The institutional design is different to a marine reserve, but some of the results are similar: detailed control of uses, biological monitoring of the area, regeneration of resources... Precisely the latter constitutes the main aim of the Marine Reserves in Spanish national legislation. In this paper we make an analysis of an alternative institutional figure like this that may accomplish similar ends.

#### **Collective Action and Leadership in the Marine Reserves of the Canary Islands: Implications for Governance**

*Raquel de la Cruz Modino and Agustín Santana Talavera*  
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In the Canary Islands, the group of stakeholders recognised by the administration for consultative purposes in the Marine Reserves (MR) is that of the professional fishermen. They are represented in their governing bodies through the president (*patron mayor*) of their *Cofradias*, fishers organizations that have a long tradition in Spain. In this paper we will attempt to analyse how important the strength of the Cofradia may be in relationship to the perceived success of the MRs, and in what sense a strong leadership in the Cofradia may also constitute a key element of that. Furthermore, we will also consider the importance of other stakeholders and their organizations regarding the governability of the MRs. We will study the literature on collective action and governance, and use these cases in the Canary Islands as an example of how a key element of MR success may be their relationship with previous stakeholders organizations, which may support their inception.



#### **Panel 4.6 Governance of Maritime and Coastal Areas in Europe**

*Chair: Juan Luis Suárez de Vivero*  
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##### **The Paradox of Public Participation in Fisheries Governance. The Rising Number of Actors and the Devolution Process**

*Juan Luis Suárez de Vivero*  
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Spain

During the process by which the number of actors was manifoldly increased as a result of the development of civil society, the fisher community has lost prominence and importance, fading into the wide spectrum of interests with which it is competing to make its voice heard in decision-making bodies and in the media. This results in what could be termed *the participation paradox*: the greater the number of actors, the smaller the role each plays, and the lesser the importance of traditional sectors. Participation and devolution do not bear a linear relationship: greater devolution does not necessarily result in greater participation, a claim that has contributed to the processes of devolution being overvalued. Governance, as interaction between State, civil society and the market, paradoxically might not strengthen the most traditional of the interest groups.

##### **Science, Power and Marine Spatial Planning in the North Sea**

*Douglas Clyde Wilson*  
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The scientific underpinnings of the European Common Fisheries Policy (CFP) are undergoing extensive revision.. One critical example is the role of marine spatial planning. The history of science for the CFP has been focussed on the question of figuring out how many fish are in the sea and how these fish should be allocated. Current dilemmas, however, revolve around the adoption of an “ecosystem approach” to fisheries management. One important part of this is marine spatial planning, an area requiring considerable scientific support for decision making that is quite different from the kinds of information used in counting and distributing fish. It is also an area involving large numbers of powerful stakeholders who have not traditionally participated in fisheries debates. This paper traces how the informational needs of spatial planning play out in these shifting political grounds.



## **Parallel Session 7 Saturday 11.00- 12.30**

### **Panel 1.7a Cyborgisation and Managerialism in North Atlantic Fisheries II**

*Chair: Dean Bavington and Jahn Petter Johnson*

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### **Coastal Communities and Employment Systems in Change in the Cyborg Era: Knowledge Gaps in Employment and Recruitment Systems in Norwegian Marine Sector**

*Signe Annie Sønvisen*

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Norway

In Norway, and other North Atlantic states, different fisheries have been key industries in marine sector employment systems. Increased harvest efficiency, followed by the introduction of resource management and reduced access to fisheries, and increased cyborgisation, has reduced the number of vessels and people directly involved in the marine sector. A surplus of labour could be expected, but surprisingly, fisheries face increasing problems in recruitment. This development indicates that little is known about contemporary employment systems in the marine sector. Few studies of employment and recruitment systems in the marine sector have been done since the 1970s, and the debate and knowledge in this field has been dominated by two different perspectives: the community model of the 1970s and the excellence of market forces. With a point-of-departure in the community model, this paper will identify knowledge gaps regarding employment and recruitment systems in the Norwegian marine sector.

### **Power and the Production of Science: Assessing Cod Stocks as the Cyborg Fishery Collapses**

*Peter Sinclair, Paul Ripley and Jahn Petter Johnson*

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Canada

Although the physical environment is generally in the background in this presentation, I hope it is a step towards better understanding of how humans relate to their environment. It is about how power relations are vital to the production of knowledge claims and the validation of management strategies for natural resources. The experience of doing stock assessment science and creating management plans for Canada's east coast cod fishery in the period before and after its collapse illustrates this general point.

### **Panel 1.7b Role of Governments in Fisheries Management in the Asia-Pacific**

*Chair: Simon Foale and Martha Macintyre*

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#### **Acknowledging the Importance and Potential of Governments in Managing Marine Resources in Melanesia**

*Simon Foale*

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Marine resources in Papua New Guinea and the Solomon Islands have historically been protected mainly by the very low human population densities in those countries. Export markets, in combination with recent increases in the efficiency of harvesting technologies, have placed greater pressure on stocks of particular species, to the point where some have either completely collapsed or dwindled to small fractions of their former abundances. Communities have mostly been unable to prevent overfishing of commodified resources, and this is mainly because the historical abundance of marine resources, especially for subsistence, has not necessitated the development of resilient management institutions at this level. Despite this, most of the Big International Non-Government Organizations (BINGOs) working in the region have concentrated their efforts on fostering community-based management, and almost all have little or nothing to show for it. With one notable exception, most have failed to form genuinely collaborative relationships with governments.

Governments of both countries, although beset with myriad problems, are in many respects better equipped to manage commercial marine resources than communities are. In this paper I examine the shortcomings and successes of government management of a number of different fisheries in both countries. I look at how these have been (and could be) improved by various reform processes and aid programs and discuss the benefits and prerequisites of improved collaboration between NGOs and governments

#### **Trading, Fishing and Unsustainable ‘Traditions’ of Marine Exploitation- Tubetube Economic Strategies in Changing Environments: 1883-2006**

*Martha Macintyre*

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Australia

In this paper I explore the ways that people on the small island of Tubetube in Milne Bay Province Papua New Guinea have engaged with the cash economy by exploiting their rich marine resources since the colonial period. It presents an historical and anthropological analysis of successive encounters with foreign entrepreneurs who have initiated fishing activities and projects; of Tubetube people’s attenuated relationship with government agencies (and more recently environmental NGOs) that have at various times tried to stimulate, manage or regulate economic development, and the effects of economic change on the cultural traditions of exploitation of their marine resources. In particular I shall discuss the ways that their marginal status since the colonial period has transformed their way of life and resulted in successive waves of over-exploitation of resources.

#### **Politics, Corruption and the Live Reef Fish Trade in the Calamianes Islands, Philippines**

*Michael Fabinyi*

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Australian National University

Australia

In the Calamianes Islands of northern Palawan in the Philippines, various attempts have been made to regulate the live reef fish trade, sparking considerable debate and argument. This paper considers the ways in which broader concerns about class tensions and government corruption have played out in the context of the debate surrounding the live reef fish trade. Focusing on the ways in which the distinctive political tensions that characterize Philippine society underpin any debate about fisheries management, I examine the discourses of the various actors involved with the live reef fish trade. I look at how fishers, fish traders, environmentalists and government actors themselves have all used discourses of government corruption and class injustice in markedly different ways to further their own interests.

**The Complexity of Relations Between Commercial and Local Fishers in an Area of Resource Depletion**

*Shio Segi*

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Ring-net commercial fishing boats, locally known as "kobkob", are prevalent in the Central Visayan region in the Philippines. Under the Philippines' fisheries policy, this type of fishing is not permitted within Municipal Waters unless the municipality grants permits in some areas of their water and commercial fishers clear the legal procedure, which rarely happens. Encroachment of the kobkob into Municipal Waters seems permanent and this has been identified as one of the most difficult coastal resource management problems in the Philippines.

This paper focuses on how commercial fishers and local people or the wider community interact with each other, especially their economic ties. By providing economic advantages, commercial fishers mitigate the antagonism caused by being a resource competitor and boost their local acceptance. This has significance for prolonging illegal encroachment. It also challenges the common view of illegal fishing as entirely without positive outcomes for local people. Together with the already widely examined issues of financial and technical constraints, an investigation of the complex relations between commercial fishers and local stakeholders can provide deeper insight into the challenges of improving sustainability of coastal resource management.

## **Panel 2.7 Ownership II**

*Chair: Luc van Hoof*

### **From Individual Fishing Quota to Community Fishing Quota: Revitalizing the Seaside?**

*Luc van Hoof, Ilona van Schaik and Maaïke Knol*

<sup>1</sup> Institute for Marine Resources and Ecosystem Studies, IMARES, The Netherlands

<sup>2</sup> M. Sc. Human Geography, University of Amsterdam, The Netherlands

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The Netherlands

The decline of fish stocks worldwide has often been attributed to problems inherent with resources that are treated as common property. The common practice around the North Sea is the allocation of fixed TAC shares to States, which in turn utilise specific allocation systems that guarantee each fishing company a more or less fixed share of the national quota.

This individual quota management has been criticized for inducing behaviour that contradicts the goal of sustainability and secondly for disregarding certain societal factors. As a reaction to the failures of centralized, top-down management a call for community-based fishery management is apparent. Especially in regions considered fisheries dependent, such as Finnmark in Norway, Shetland in the UK and in Iceland, the debate centres on possibilities of introducing Community Fishing Rights or a system of community transferable quota.

This paper discusses the background of the debate and seeks to assess the potential impact of local fishing quota on communities. Especially it focuses on the reliance on fisheries and the resilience of fishing dependent communities and whether a system of community transferable quota can curb the trend.

### **Who Should Manage the Mangrove Forests? Changing Regimes of Land Tenure in the Red River Delta, Northern Vietnam**

*Hue Le Thi Van*

Hanoi University of Science

Vietnam

This paper presents a case study on land tenure changes in a commune in the buffer zone of the Xuan Thuy Ramsar Site in the Red River Delta in Northern Vietnam, which was established in 1989. The paper focuses on common property and state property regimes for the mangrove management, by tracing the history of land tenure in the area, through the traditional and French colonial eras to the year of collectivization in the 1960s and 1970s through to the recent period of renovation (*doi moi*) reforms. The establishment of the Xuan Thuy Ramsar Site has altered the ownership and access to and control over coastal resources at the commune level. The paper examines the rapid changes in local land use systems, ownership and management practices of mangrove forests in response to the enclosure of land and to national policy reforms in the commune. This analysis pays explicit attention to different access to and control over mangrove resources, conflicts between those who have been able to capture nearly exclusive access to and those who lost the newly privatized coastal aquaculture resources, and different management practices by men and women. The findings demonstrate those rapid changes in the coastal area have deprived many poor households of livelihoods dependent on access to mangrove resources. Women-led households, women and girls have been the most adversely-affected.

### **Do Fishers Own their Coast? Indonesian Perspective**

*Arif Satria*

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Bogor Agricultural University

Indonesia

The paper discusses the status of the Indonesian fishers' property right over the coastal and marine resources: are the fishers as owners, proprietors, claimants, or authorized users only? The answer can be resulted from the analysis of decentralization of fisheries management both in legal framework and empirical perspectives. In legal framework perspective, evolution of decentralization of fisheries management since Dutch colonization period to present condition is analyzed. The result shows that most of legal products address decentralization of fisheries management in terms of operational-choice rights. Decentralization can be meant as devolution if collective-choice rights are granted. The result shows that devolution to the fishers mostly take place in the colonization (pre-1945) and post-independence period (1945-1966). Meanwhile, in the New Order (1967-1998) period,

devolution to the local has never taken place. Collective-choice right was not granted to the local people during the New Order period because fisheries management was highly centralized. In the Reform period, even though the devolution to the local government (*Undang-Undang 22/1999*, called Local Autonomy Law) is initiated, it is not accompanied by devolution to the local people. Moreover, there is no article within the revised Fisheries Law No 31/2004 that explicitly addresses devolution to the local people as a recognition to the community-based fisheries management (CBFM) system, though they *de facto* exist over hundred years. Therefore, devolution to the local people can be categorized as *de facto* devolution instead of *de jure* devolution. This situation leads to the vulnerability of the fishers status in particular areas such as marine national parks that are actually state property. In empirical perspective, even though the recognition of CBFM from the standpoint of the national legal framework is minimal, nevertheless, based on the case study in Lombok Barat, the local autonomy brings the positive impact as the local government's recognition to CBFMs arises. The local government recognition is very important for the local people as an opportunity to strengthen their institution including revitalizing traditional norms of fishing, improve capacity building of MCS (Monitoring, Controlling, and Surveillance), develop mutual collaboration with other fisher associations and NGOs, and enhance economic activities. Nevertheless, tragedy of property rights, which involve multilevel institutions, still happens in the study area because there is lack of proper institutional design. The case study depicts that the solution to the complexity of property rights in coastal and marine areas is held at the community level only. This is a minimum solution regarding the tragedy of property rights that involves higher level institution. Local design is available, but this may be site specific, and fragile if there is no institutional arrangement combining formal and informal rules and involving both formal and informal authorities. Therefore, there are ways in dealing with the complexity of property right system in fisheries in decentralization era. *First*, at the national level, legal reforms attempt to recognize the local people as resource managers where particular territoriality takes place. With such legal reform, property rights system in marine fisheries can be clearly defined. *Second*, at the municipal or regency level, devolution to the local fishers needs to be formalized. Without formal recognition to the devolution to the local people, it may be vulnerable to external shocks, such as political situation change or business investment. Furthermore, harmonization between government regulation and the local rules concerning property rights can be arranged.

### **Panel 3.7 Fisheries in West Africa**

*Chair: Marloes Kraan*

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#### **“God’s Time is the best”: The Role of Religion in Fisheries Management of Anlo Ewe Beach Seine Fishermen in Ghana**

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The role of the state and the market, and the interaction between them, tend to be emphasized in studies on fisheries management. The role of civil society, involving institutions of the community, the family, user groups and religious groups; is often left out or thought of as irrelevant for fisheries management. This is a mistake because the worldview of fishermen, including their norms and values, is formed in their community, in which religion plays an important role. This mistake often shows when outsiders come to fishing communities to implement certain management measures without taking trouble to make a connection with the worldview of the fishermen, resulting in a failure of performance. Making this connection, I will argue, is crucial, whereby one should be aware of variation of worldviews in communities. I will show this in this paper by looking at the role that traditional religion plays in the worldview of Anlo-Ewe beach seine fishermen in Ghana. The rhythm of fishing is connected to a rhythm of rituals, events occurring are explained by referring to the gods and *vodu* practices play a role in the interaction between fishermen (between net owners and crew and between fishing companies). At the same time however one can observe that the central role that traditional religion played in the past is slowly getting less, traditional religion is not central in the lives of *all* fishermen. Christianity, formal education and also migration contributed each in their own way to the erosion of traditional religion, changing the worldview of fishermen. This will have its effect on the fisheries management practices of the Anlo-Ewe fishermen.

#### **Fisheries in Senegal: Different Perspectives on Co-management**

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Through profound insight in the relationship that local Senegalese fishermen have with their natural and socio-economic environment, we have some clues of how to give shape to a form of co-management, which aims towards a sustainable fishery. To gather these insights of fishermen Geja Roosjen conducted a three months research in Yoff, a fishermen town near the capital Dakar in Senegal. Senegal has about 700 km of coast and approximately 50 percent of the Senegalese live in coastal areas. A combination of factors caused a severe decline in fish stocks in West African countries. These factors are modernisation of the local fishermen’s fleet, increased numbers of fishermen and access of European trawlers fishing along the coast of West Africa. The decline of fish stocks means a crisis for Senegal where the main food is fish and where more than 600.000 people work in the fishery sector. During the research it became clear that the crisis has influenced the way common pool resources are perceived, used and managed. Different groups of people (local fishermen, industrial fishermen, government etc.) have different perspectives on how to use and manage the sea and the fish.

#### **Legal Fisheries Instruments and Poverty Eradication: Is the Small- Scale Fisheries Sector included?**

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Poverty eradication is considered a priority by the international community. The small-scale fisheries sector is a sector that can have major impact on poverty eradication. This paper will, from a legal perspective, discuss the attempts towards poverty eradication through legal fisheries instruments, while questioning its impact on the small-scale fisheries sector. First, the paper briefly considers some characteristics of the small-scale fisheries sector which can make its inclusion in legal instruments difficult, such as its elusiveness and the formal and informal nature of the sector. Secondly, international fisheries instrument are studied on their inclusion of



poverty law, and more specific on whether they address the small scale fisheries sector. While discussing these instruments, the paper differentiates between binding treaties and so-called soft law instruments. The paper concludes on the existence of a gap between the (potential) impact of small-scale fisheries on poverty eradication and its actual inclusion within the legal discourse.

**Embedding co-management: Community-based Fisheries Regimes in Lake Victoria, Tanzania**

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This paper discusses fisheries management reforms through involving local level institutions (LLFI). It is based on studies which were undertaken on Tanzanian's Lake Victoria fishery where LLFIs were established through the formation of Local enforcement Units and later named Beach Management Units (BMU) between 1998 and 2002. The paper takes the view that the overfishing problems that confront Tanzania's fisheries management authorities are best understood from a social science perspective. The argument is that most communities' values and institutions are embedded in their societies. The same is however, not true for externally originated management tools and systems as is the case with BMUs. This paper shows that the BMUs established between 1998 and 2002, were not sufficiently grounded in their socio-cultural environment and this led them to be unsustainable and ineffective. The paper demonstrates that this mismatch by examining the different historical and social contexts in which livelihoods such as fishing emerged and was carried out. These social contexts generated social values that explain the individual behaviour of community members. It is such values that communities always strive to maintain in any activity including fishing. Thus, when confronted with situations that threaten these values, communities strategize or negotiate ways to cope. The coping strategies of two communities riparian to the lake are discussed. The paper therefore proposes a framework for making these units 'fit' local conditions in order to make them effective and sustainable so as to reform fisheries management.

#### **Panel 4.7 Valuing Biodiversity in European Coastal Communities**

*Chair: Alyne Delaney*  
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##### **Threats and Benefits to Cultural Services under European Fisheries Management Recovery Plans**

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Communities react to changes in their subsistence systems in diverse ways. This paper investigates the impacts fish stock recovery plans have placed on local fishing communities in Europe. Recently, the European Commission has taken steps to protect fish stocks through recovery plans. An important question which must be asked when considering these innovative recovery plans is “what are the effects at the community level?” Community impacts, especially at the social and cultural level, must be considered to get a true understanding of the potential success or failure of such recovery plans.

This paper presents case studies from two recovery plans, North Sea Cod and Northern Hake, and discusses how communities have been affected by the limitations imposed by the recovery plans; how they’ve shrugged off the adjustments; how they’ve suffered from the changes; and how some have even benefited.

##### **Governing Coastal Biodiversity: Caretta-caretta in Zakynthos and Crete**

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The aim of this paper is to examine how biodiversity policy related to *Caretta caretta* has influenced environmental activism aimed at the protection of Greek coastal areas hosting the Mediterranean sea turtle. The loggerhead turtle is enlisted as one of the endangered species in the EU boundaries, with Greece (i.e. Zakynthos and Crete) being among its only remaining habitats. The paper examines participatory governance issues which surfaced since the implementation of the Habitats Directive, and the ways they are intricately tied to local tourism and fishing interests. In addition to Archelon, WWF GR, and Medasset - the major national NGOs active on the issue - local NGOs and citizen environmental groups in coastal communities of Zakynthos and Crete are also engaged in environmental protection actions. The data come mainly from the EC, DG XII funded project on “Participatory Governance and Institutional Innovation”.

##### **Protecting the Mediterranean Coastal Commons: The Need for a Cultural Ecological Valuing Approach**

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Complex, dynamic interfaces between land and marine ecosystems, which support more than 25% of the world human settlements and very often antagonistic activities, the morphological diverse fragile coastal areas are worldwide under growing stress if not at risk. The Mediterranean Europe comes to evidence in a glaring way an increasing process of marketisation of the coast as a resource – commodity, led by speculative urbanisation and tourism which since three decades have radically altered in many places the very long lasted farmer - shepherds - fishers ecotype, dislocated social ties, displaced fishing communities settlements and activities.

This contribution intends to question the flawed creeping acceptance of the economist paradigm according to which there is no “stewardship” without ownership, no possible conservation without property rights allocation. How dynamic interdependent flows of life, between diverse ecosystems assets and entities belonging also to trophic chains can suit to the always more segmented, individualized and complete property rights, remains somewhat mysterious. Based on the field data of the eco - history of the Purple Coast of the Skylla Strait (South Italy) the paper look for addressing the preservation of coastal areas has to integrate a valuing approach, emphasizing the intrinsic value of social and ecological reproduction, sense of place and imagination. The understanding of the high complex coastal millieu supposes to recast it as environmental cultural common good governed by the means of public - communal arrangements and regulations participative elaborated and implemented, based on an enlightened ecosystemic view integrating human as part of nature, pars naturae.