The need for social science in fisheries management and research

#CFRN_AGM5

17 November 2015, Marloes Kraan
Structure of the talk

• Why social science is (should be) a crucial part of fisheries management & research
• How it can be more integrated
• GAP2 case on discards – why perceptions are so important.
• Conclusions
Fisheries science and management

- Fisheries science:
  - research for fisheries management
    - Fish stocks
    - Ecosystem
    - Economy
    - Social science

- Fisheries management:
  - managing ...
  - what...?

- Human behaviour
Fisheries research without social science
Fisheries research with social science

NGO's

Management

knowledge

Worldview

compliance

Fishing Culture

Science

Market

Family

Community

€
Fields of study

- Management
- Compliance
- Market
- Science
- Family
- Community
- Knowledge

NGO's

- Worldview
- Fishing Culture
- Livelihood
- Family
- Community
Fields of study

- Management
- Science
- Market
- Fishing Culture
- Family
- Community
- Worldview
- Knowledge

Research cooperation

**NGO’s**
Key aspects of social science

1. Why do people do what they do, say what they say?
2. How does the system work?

Understand the meaning of social action from their perspective.
The system...

- Society: culture, norms, values, roles, power, status...
- Fisheries governance is all about **making hard choices**, not only based on ‘rational’ science but also matter of politics, power.
- Social science role is also to study these processes...not always appreciated
- Some social scientists choose to focus on the marginalised -> empowerment
- Social scientists sometimes feel to be marginalised themselves
Social science application in fisheries research

Daniel Pauly at MARE conference 2005

“social scientists don’t play a role in fisheries management / science because “social scientists: (1) neglect[ing] in their field work key variables, such as catch levels, important to any understanding of fisheries; and (2) often conducting and reporting on locale-specific field work without attempting broader (and admittedly risky) generalisations -- the elements of a ‘model’ -- that are imperative for actual policy making”. (MAST 2006)“.
Responses to Daniel

- Svein Jentoft: “First let me note that, like small-scale fishers, fisheries social scientists are of course well aware that they are a marginal group. We hardly play any role in informing fisheries policies at various levels, and we do find this to be a paradox given that policy formation and governance are typically social science specialties. This often makes some of us feel a bit disillusioned and perhaps even a little bitter from time to time, and we ask ourselves why we bother”.

- Rob van Ginkel: context matters

- Nathalie Steins: also large scale fisheries need understanding

(MAST 2006)
Why 10 years later, ‘marginal’ social science is changing...

- Call for ecosystem based management, *integrated* assessments
- Sustainability: *people* planet profit
- Call for *participation* in research projects
- Buzz words are there: stakeholder participation

- Challenges:
  - EU no social objectives
  - Budget cuts government (so no room for *extra* research)
  - Beware of window dressing
Why 10 years later, ‘marginal’ social science is changing...

- Call for ecosystem based management, *integrated* assessments
- Sustainability: *people* planet profit
- Call for *participation* in research projects
- Buzz words are there: stakeholder participation

Challenges:
- EU no social objectives
- Budget cuts government (so no room for *extra* research)
- Beware of window dressing
The pillars of applied marine research

- Biology
- Ecology
- Economy
- Social Sciences
So where should I work to have impact?
Choosing for ‘the biologists’

IMARES

Biology

Ecology

Social Sciences

Social science

A History of Canadian Horror Cinema

THEY CAME WITHIN

Caelum Vatnsdal
Slow progress

- From ‘add on’ social science in projects to development of interdisciplinary work
- “Let’s ask the fishermen.”

Biology

Ecology

Social science
The ideal picture

One institute

Biology / Ecology

Economy

Social Sciences

Interdisciplinary
Advantages of working together

1. Taking part in research teams
2. Sharing social science methods
3. Doing social science projects
4. Working towards interdisciplinary research

Add on social science
* Social science workpackages
* Projects in cooperation with the Fishing industry

Some questions require social science

Changing methodology
Interviews -> how
Stakeholder meetings -> how

Some questions require a new approach
Three directions of work as social scientist working from within

- Social science methods for natural scientists
- Social science research: i.e. on perceptions
- Interdisciplinary research
The course – why?

Methodological toolbox
Research cooperation
Stakeholder meetings

http://gap2.eu/methodological-toolbox/
Natural scientists asking fishers...

How to verify this anecdotal fisher’s knowledge?

How can we trust them?
In the meantime in Europe... 
...the landing obligation

Dutch case study in the GAP2 project
Context 1: Discards

- Not a black-white story

- Discards result of complex interplay of rules, regulations, market demand, technology and decisions of the skipper
Context 2: Cooperation is crucial
Context 3: The landing obligation is a revolution

- Radical change of the system
- BUT
- Goal is unclear
- Consequences are unclear
- Governance structure is unclear
Three questions

- What are discards to fishermen?
- Contested policy
  - Why cooperate?
  - How?
- What is the line of reasoning (perceptions) of policy makers and of fishermen?
Discards to fishermen: their reasoning

- 0% discards = no fishing
- “If I see 400% discards in my catch, I am happy as it is a sign of a lot of new young fish in the sea”.
- If the stock is doing well, why should discarding then be a problem?
- Compare to other industries; on chicken farms all males get killed; with seedlings on a farm, many are not used.

You shouldn’t take along young fish
As it should be in the sea.
Support us!
Discards to fishermen: discards are age old...

Then they sat down and collected the good fish in baskets, *but threw the bad away*

quoting the Bible (Matthew 13:48)
Cooperation: NL has a long history of cooperation

- Horizontal society – Polders
- Export product
- Research cooperation
- But... the landing obligation?
LO: Two options for the fleet

- ‘On the table’ or ‘at the table’
LO: options for the ministry

- Top down management (control)
- Cooperate
So what was said?

“Explain to me why you think it will not work! I need your ‘evidence’”

“You have no idea what this discard ban will mean in practice!”

Why should we ‘prove’ the policy will not work, if you have never evaluated existing policy?

The GAP...
The gap between ministry and fishers

- Fishers
  1. ‘the discard ban is impossible’
  2. Let’s discuss the principles

- Ministry
  1. ‘the discard ban is a fact’
  2. We will not have a discussion on the principles

Fisher representative: ‘we need to make the impossible, possible’ 27-9-2013
The gap between ministry and fishers

**Fishers**
1. ‘the discard ban is impossible’
2. Let’s discuss the principles
3. Tell about the impossibilities, problems and dilemma’s

**Ministry**
1. ‘the discard ban is a fact’
2. We will not have a discussion on the principles
3. Seek for room to manoeuvre in the implementation
The gap between ministry and fishers

- Fishers
  Tell about the impossibilities, problems and dilemma’s

- Ministry
  Seek for room to manoeuvre in the implementation

Problems:
1. Research directed at proving it is impossible (exemptions)
2. NL needs to renegotiate about the outcomes in the region
3. Fleet is left aside and is not preparing for the change
4. There are some big elephants in the room…
Differences in perceptions

Policy makers: Most fish don’t survive

Fishers: Many fish survive
Dead discards essential part of the ecosystem
Differences in perceptions

Discards

Policy makers
Societal pressure
(discards = waste)
Most fish don’t survive

Many fish survive
Dead discards essential part of the ecosystem

Discard ban

Fishers

Moral decision, ecological argument

Kraan en Verweij 2016
Differences in perceptions

Policy makers

- Most fish don’t survive
- Societal pressure (discards = waste)

Fishers

- Many fish survive
- Dead discards essential part of the ecosystem

Discard ban

- CHANGE Fishers will fish more selective (prevent bycatch)
- Lower mortality of undersized fish
- Less discards
- Lower fishing mortality
- Less waist
- Improved fish stocks
- Good for the ecosystem
- License to operate
- More income (fishers)
Differences in perceptions

Policy makers

- Societal pressure (discards = waste)

- Most fish don’t survive

- CHANGE Fishers will fish more selective (prevent bycatch)

- Lower mortality of undersized fish

- Less discards

- Lower fishing mortality

- Less waste

- Improved fish stocks

- Good for the ecosystem

- License to operate

- More income (fishers)

Fishers

- Many fish survive

- Dead discards essential part of the ecosystem

- Less food in the ecosystem

- Higher mortality (some species)

- Bad for the ecosystem

License to operate

Less discards

Less waste

Improved fish stocks

Good for the ecosystem

More income (fishers)
Differences in perceptions

Policy makers
- Most fish don’t survive
  - Societal pressure (discards = waste)
  - Discard ban
    - CHANGE Fishers will fish more selective (prevent bycatch)
    - Lower mortality of undersized fish
      - Less discs
      - Less waste
      - Improved fish stocks
      - Good for the ecosystem
      - License to operate
      - More income (fishers)

Fishers
- Many fish survive
  - Dead discards essential part of the ecosystem
  - Discard ban
    - BAU Fishing more selective impossible (all discards will be landed)
    - Higher mortality of undersized fish
      - Less food in the ecosystem
    - Same discards, and all will die
    - Higher fishing mortality
      - More waste
      - Worse fish stocks
      - Bad for the ecosystem
    - More costs, less income (fishers)

Moral decision, ecological argument

Kraan en Verweij 2016
Current research misses a crucial element

Adapt the gear

before

Survival of fish

during

Using landed discards

after

Improve handling on board
Conclusions

The need for social science in fisheries research and policy...
Conclusions on the use of social science

- It is an open door

- The door is open

- the human factor is *important* in research, *crucial* for management

- social scientists, interdisciplinary scholars - the time is ripe – be strategic
Conclusions on cooperation

- Cooperation requires discussing the goal(s), defining the problem and discussing possible outcomes together
- Cooperation = teamwork; each partner has his/her expertise
- Cooperation is constructed, needs trust, speaking same language, invest in relationship
Conclusions on participatory processes

- Sharing knowledge – how to organise the right process?
- “extracting” fisher knowledge / perceptions
  - Social science has to offer:
    - Light model: methods
    - More fundamental: reflection & theory
      - Fishing = political
      - Knowledge is not neutral
      - What is the role of science?
- Participatory research / management: do it right (for real) or don’t do it!
Thank you!

Marloes.kraan@wur.nl
www.gap2.eu
www.marloeskraan.eu
www.imares.wur.nl
www.marecentre.nl