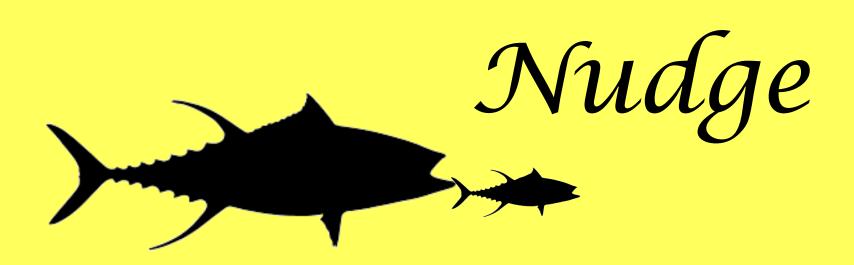
To Nudge or Not To Nudge;

is nudging in fisheries management necessarily libertarian paternalism?

Sarah B. M. Kraak, Dorothy J. Dankel, Debbi Pedreschi, Katell Hamon, Sebastian Uhlmann, Marloes Kraan, Sarah Verroen, Arne Kinds



Background

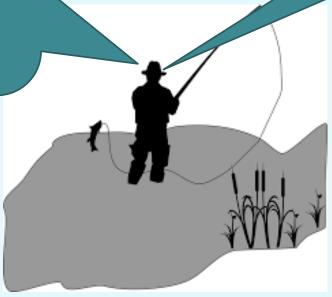
We are a group of fisheries management scientists who became interested in the question whether nudging can be useful in fisheries management and the ethics of it. Ideas on nudging are very recent and new in the fisheries-management world, and we have not much experience yet with the implementation of actual nudges. We have had debates in our own circles about the pros and cons of using nudges. We are now on the one hand side interested in what outsiders to the fisheries world have to say about these issues, and especially people who have expertise in nudging, and on the other hand side we hope that we can offer you some new insights from the unique case of fisheries management. We are not sure, but we tend to think, that fisheries management is a very special case of policy making, with very special actors.

So first we have to give you a very brief introduction to the basics of fisheries management.....

A fisherman said

Fishers are silverback alpha males with a lot of testosterone, very competitive, fearing failure, not aiming to be rich, but to be richer than their competitor.

Their biggest commodity is freedom.





A very brief introduction to fisheries science

Sarah B. M. Kraak - Thünen Institute of Baltic Sea Fisheries

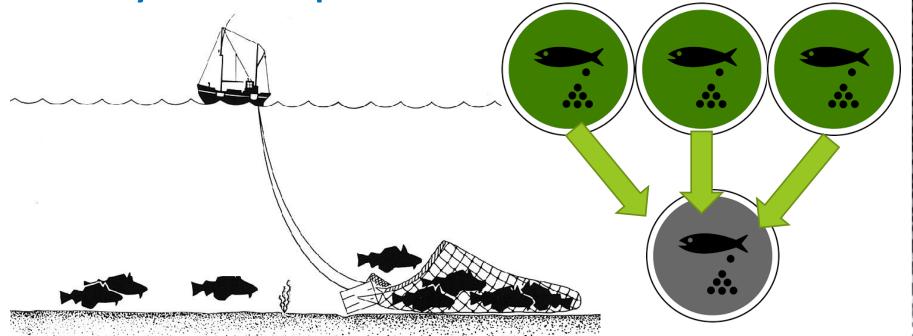


renewable resource



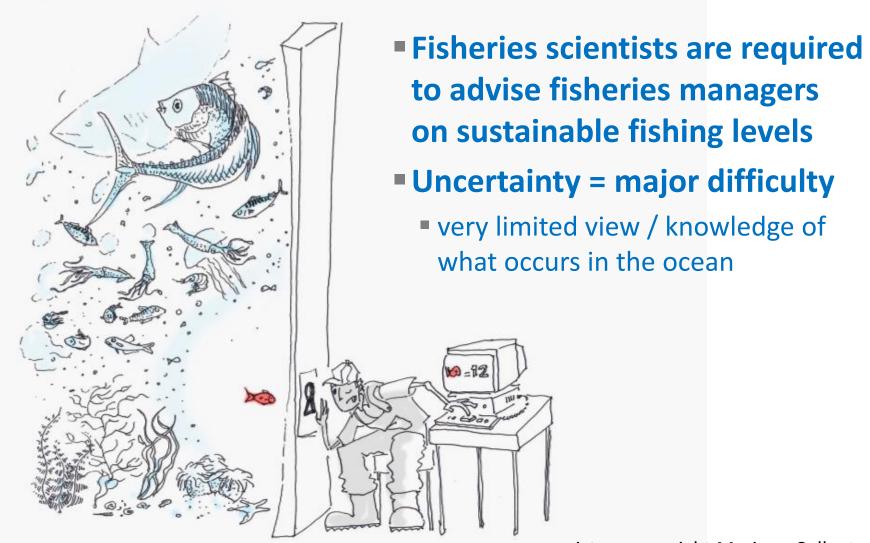
- Fish stocks are a renewable resource
- In principle they can be harvested sustainably as long as the parent population is sustained

If you fish too hard the stock cannot produce enough or may even collapse



scientific uncertainty





picture copyright Mariano Collantes

...bycatch of vulnerable species...



- Fisheries are also concerned unintended bycatches
- In most fisheries a mixture of species is caught, sometimes including biologically vulnerable species such as many sharks



...damage to seafloor...



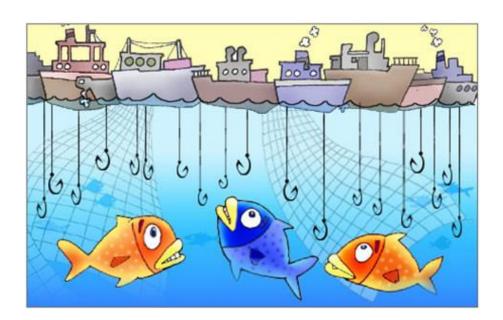
 Modern fisheries management seeks to take care of the whole ecosystem, including minimizing seafloor damage



Tragedy of the Commons



It is in the individual fisher's short-term interest to overfish, but it is in the individual fisher's long-term interest, as well as in the collective interest of all fishers, consumers and society at large, that fishers hold back and fish at sustainable levels.



fisheries regulation



• We need regulations and laws that regulate, or limit, fishing activities to sustainable levels.

RULES AND REGULATIONS

Adopted by the Local United States Food Administration for the season of 1918, pertaining to the harvest and threshing of grain.

RULE I.

That the local U. S. Food Administration deputize man in charge of each threshing machine operating to as their agent, to see that all ways and means be observ so as to prevent the waste of grain in any manner.

RULE II.

It shall be in his power to direct all men who are wo ing about the machine or on the job of threshing, and that they give efficient service, and in any event any one disloyal he shall be reported to the United States For Administration and dealt with according to the rules I down by the Government.

RULE III.

It shall be the imperative duty of every man in char of a threshing machine to see that his machine is in performing order before he shall attempt to do any work threshing and in case he is unable to correct the defende is allowed the privilege of seeking aid of the U. S. For Administrator who will report his troubles to the manufacturer of his machine, and get his troubles adjusted.

RULE IV.

As it is an order to save grain, the man in charge of the machine and farmer are to arrange to have a man to attend to the cleaning up around the machine, and help where needed, to keep the machine running correctly, and not allow bundles to be run over by teams and wagon; also it is

RULE V.

It is also demanded of the managers of threshing machines to provide canvass, size not less than 10 x 14, to be put under the feeder of the machine and to avoid all leaks; and the man who are nitching to the machine must obscure



RULE VI.

It shall be the duty of the machine man to avoid all waste for the following reasons:

- Threshing grain when it is tough (damp and unripe.)
- R Loss from shattering in hundle wagons

- D. Carelessness in feeding bundles or loose grain into the machine.
- E. Carelessness in allowing grain to leak on the ground around and under the machine and haste in cleaning up at close of operations.

Improper adjustment of concaves and other parts of machine.

RULE VII.—Pertaining to Farmers.

shall be the duty of the farmer to see that all wagon are tight. Also to see that there is no waste at the ne from scooping and at the machine while changing aveyor from one wagon to another. We will also recid that if it is impossible to rake the wheat field bene finish of the wheat threshing: it be raked after, reshed on the return of the machine for the oatsing, also to see that no grain is left by the man who son the shocks; "Always scrape up after each shock ck up all bundles lost or dropped from wagons by yside."

sery effort should be given with the object of getting ain into proper channels of trade and not permit so a percentage to be distributed upon the ground or e straw pile to be fed later to the stock on the farm.

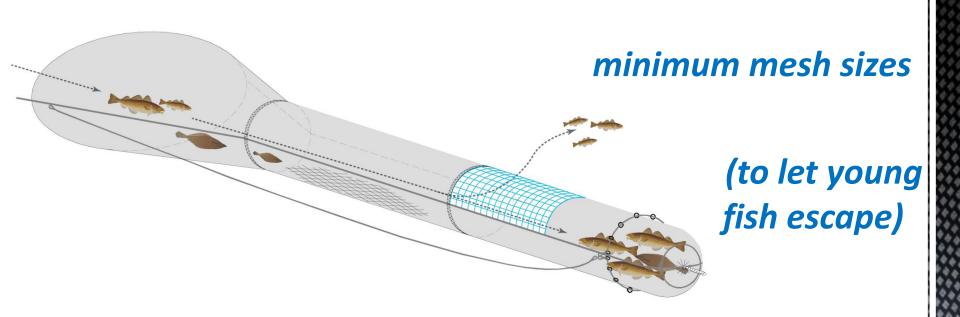
The practice of overlooking the leaks with the excuse that the stock will get the benefit when turned in, should be discouraged this year, when no wheat should be fed to animals,

Suggestions and mention of instances where wastes during threshing has occurred in the past will be appre-

fisheries regulation



Example of fishing regulation:

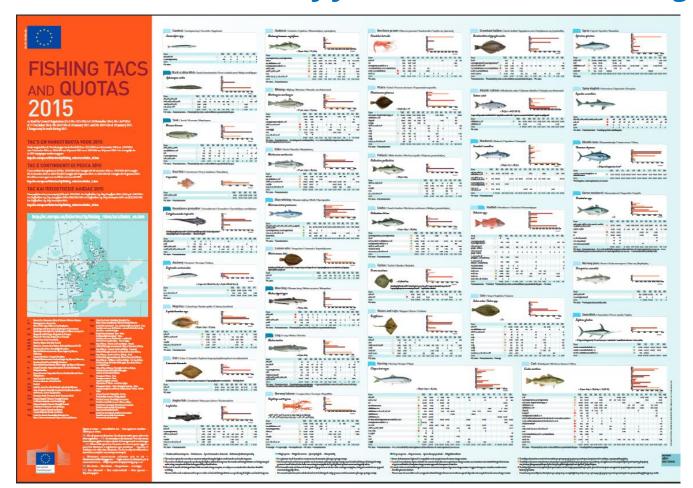


fisheries regulation



Example of fishing regulation:

EU Quotas – the amount of fish allowed to be caught



enforcement and non-compliance



Laws need to be enforced. But enforcement at sea is difficult and thus there is non-compliance with the rules.

- Black landings
 - unregistered, overquota catch
- Discards at sea
 - throwing back of unwanted fish (used to be legal now banned)
- Mesh size modifiers
 - to modify the mesh size below the legal limits.
- Misreporting

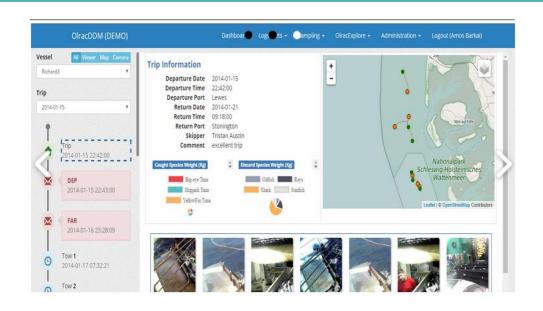


monitoring and control

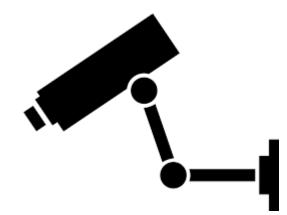


Electronic logbooks





CCTV cameras



There are several tools to monitor and control compliance.

problems



Top-down management (from EU)

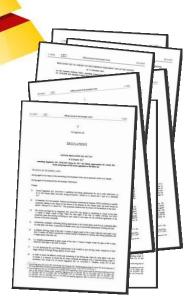
Regulations, too many and too complex

Political inertia



Lack of trust





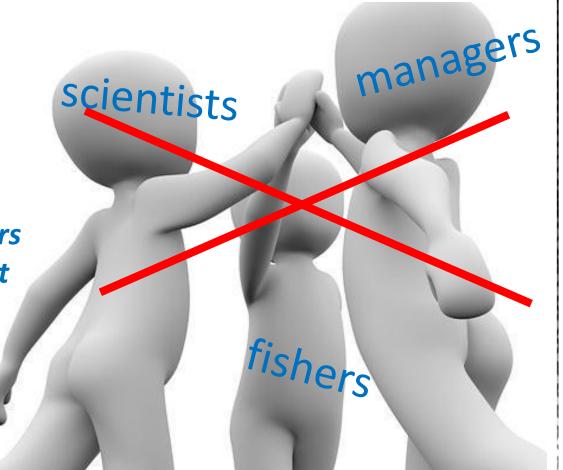
problems



Scientists and managers tend to not trust fishers, thinking that fishers will always tend to overfish if you give them the chance.

Lack of trust

Fishers don't trust managers and scientists, thinking that they try to sabotage their businesses and limit their activities to unnecessary degrees.



That was your quick introduction to fisheries management and some of its issues and complexities.....

....now we would like to introduce an overview more from the fishers perspective and motivations Define **calling**: 'a strong desire to spend your life doing a certain kind of work'



To fish or not to fish

Photo credits:
Dirk Sloot ZK17
Eendracht Maakt Kracht (EMK)
Sander Meijer (NG21)
Visserijbedrijf Vonk & zn. (TX1)

Sarah Verroen, Fish & Farm 24th of June 2017



The calling: salt running through your veins



- Family tradition
- Sense of freedom
- Community & culture
- Unpredictability and adventure
 - Nature
 - 'The hunt'
 - Financial reward
- Entrepreneurship





Appealing or appalling?



- Physical restrictions, not just policy measures but also spatial claims by other industries, such as shipping, oil & gas industry, wind farms, MPA's...
- Psychological restrictions:
 - Feeling of lack of insight & influence in policy development
 - Lack of appreciation from society
 - Pressure from NGO's (totally different world!)
 - Imagine getting weekly bombardements of negative news updates (one way) and having to defend your profession all the time at birthday parties...
 - Fear to disobey the rules without knowing it

So why remain a fisher?



Comply or complain?



- Compliance, main question should be 'why not'? Who's asking fishermen?
- Input gathered but what happens afterwards? In transparent process and how does industry input translate to final measures? Often unclear for fisher
- Who's responsible for communication?





Making choices: predictable or reliable?



Family owned businesses, big and small.

Choices not only financially driven but influenced by:

- Competition (collegues but might also be amongst family members)
- Personal preferences for cooperation (example farmland)
- Financial pressure from external parties
- Principles and pride
- Feeling of responsibility for sustaining large group of closely linked people/family

Are choices based on being the best entrepreneur (higher predictability based on economic models) or the best and reliable companion, provider and family (wo)man?

Can we predict emotion?



Why continue riding the waves?



Financially driven

But even more so:

- Closely linked family ties and responsibilities **FEEDS YOU S**
- 'The nights'
- Sense of freedom
- A deeply embedded passion for what you do









Session Overview

Moderator Dorothy J. Dankel



University of Bergen/Nordic Marine Think Tank www.nmtt.org

Topic 1: Is Nudging Libertarian Paternalism?

- Sarah Kraak & Sarah Verroen opening statements
- Plenary discussion

Topic 2: Nudging & Trust

Panel, then Plenary discussion

Topic 3: Nudge Architecture: how to design?

- Debbi Pedreshi (intro Real-Time Incentives project)
- Sebastian Uhlmann intro (VALDUVIS project)
- Plenary discussion

Topic 4: Nudging & Communication

- Katell Hamon (Marine Litter: nudge convenient)
- Sebastian Uhlmann (VALDUVIS problematics)
- Panel, then Plenary discussion

@dorothydankel

#NUDGE2017 #FishNudge

Serving the Common Good from a Common Pool

Is nudging in fisheries management libertarian paternalism?

Usually nudging is supposed to help people to do what is good for them. In the case of nudging for (compliance with regulations for) sustainable fishing practices it is to induce people to act for the common good.

Trust

- Does nudging erode trust further?
- Can nudges be used to build trust?
- Does the choice of nudge affect trust relations? (Examples from audience?)
- Would more transparency increase acceptance of nudges or make them less effective?

Nudge Architecture

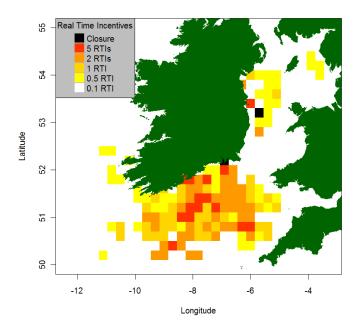
- Should we nudge by changing the choice framework (large scale management change), or by implementing specific interventions (micronudges)?
- Should we nudge through incentives or by using feedback?
- Can nudges/incentives be co-designed with nudgees?
 Or does this make them less effective?
- Can/should these approaches be combined?

Case Example 1: Real-time Incentives (RTI)



Nudging by incentives

- New way of managing fisheries
- Attempting to employ a 'nudge philosophy'
- Maps 'nudge' individuals to fish in areas we want them to fish in

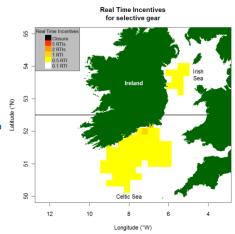


Case Example 1: Real-time Incentives (RTI)



Nudging by incentives

- Includes a 'business as usual' default
- Includes incentives
 - More sustainable practices
 - More environmentally friendly gear
 - Fully documented fishing



- Can be combined with other approaches
 - Smiley face micronudges on logbooks
 - Feedback data gathering and provision





Nudging by feedback

In this project we rely on nudges to engage fishers to use this real-time sustainability tracker indicator dashboard we have developed.

Can nudges be used to motivate fishers to participate?

- How to manage expectations (e.g. price premium vs. market access)?
- Does the inclusion of social and economic indicators serve as an incentive?

The VALDUVIS indicator dashboard came about as a top-down initiative - the Belgian fishery struggled with a negative image

- claims of low selectivity, sea bed disturbance and high fuel consumption At the same time consumer demand for sustainable seafood was growing
 - Necessitates a sustainability tool
 - Learning tool and monitoring (for fishers); market access
 - Boost image of whole sector



Government

Researchers



"Towards sustainability" In favor of labelling

Intervention: Learning tool for fishers to guide them in the transition

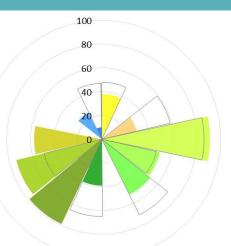
Don't agree with the idea of sustainability



Nudging by feedback

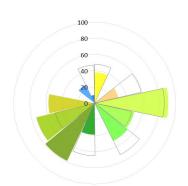
VALDUVIS: measures and visualizes sustainability

The key element of VALDUVIS is an indicator dashboard and online data portal visualizing in real-time fishing performance against reference points.



Good

BUT, although the tool is online, validated, peer-reviewed and fully operational, after 4 years, only <35% of all Belgian fishers have signed up for it but may not use it regularly (see next topic...)



Bad

Communication

- How should we communicate to fishers about behavioural economics and nudges without sounding manipulative?
 - Are less controversial subjects good ways to introduce behavioural economics in a defiant sector?
- Can a well thought-through communication procedure, with well-timed and informative reminders using engaging social media increase optin rates? Or do they have the opposite effect (annoyance, guilt)?

Case Example 3: Marine Litter



A less controversial starting point for nudge discussions

- Top items found on the beach: fishing nets, ropes, dollyrope
- In the Netherlands, partnership agreement between fishers, NGOs, government and scientists to decrease marine litter from

fishery







Case Example 3: Marine Litter



A less controversial starting point for nudge discussions

- Fishers themselves agree with the need to reduce littering
- Not question of "why?", or "should we do it?" more a question of "how?"
- Building the strategy together fishers come up with solutions







How to keep momentum going – a framing issue

Through establishing personal relationships with fishers, we were able to convince them

- Participatory approach
- Incorporating fisher opinions
- Agreements on data privacy
- Suggesting a step-by-step approach, leaving it up to them to decide to communicate results to the market



- Established based on industry feedback and desires
- Fitted to their needs
- Yet little uptake only 20 out of 60 vessel owners subscribed!

Thanks for your attention!















