



# WHAT ARE THE KEY FACTORS FOR A SUCCESSFUL DESIGN AND IMPLEMENTATION OF A RIGHT-BASED SYSTEM IN THE ALLOCATION OF FISHING OPPORTUNITIES IN THE DEMERSAL FISHERIES IN SWEDEN?

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# Outline of presentation

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2. Background (introduction of landing obligation)
3. Allocation before 2017 (demersal fisheries)
4. New system from 1 January 2017 - main features
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# Experience of individual quotas in Swedish fisheries

- Pelagic fisheries (e.g. herring, mackerel)
  - An ITQ-system was introduced in 2009
  - Goal to reduce capacity – number of vessels has decreased from 82 in 2009 to around 30 in 2018
- Demersal fisheries (e.g. nephrops, shrimp, cod)
  - A system with annual individual quotas that is temporarily transferable was introduced in 2017 (*will be discussed in this presentation*).
  - The main goal of the new system was to increase possibilities for fishermen to comply with the landing obligation

# Background: Introduction of the landing of the landing obligation

- As a part of the EU's common fishery policy, the landing obligation is introduced in Swedish fisheries between 2015 and 2019. This means that catches of quota species must be reported, landed and deducted from the national quota.
- The landing obligation aims to, among other things, accelerate the development of more selective fishing methods.
- The introduction of the landing obligation created demands on adjustments in the fishery management, for example on the system to allocate fishing opportunities.

# Allocation of fishing opportunities before 2017

- Before 2017, Sweden applied catch limits on a weekly or monthly basis for several demersal species in the North Sea.
  - No possibility to transfer fishing opportunities
  - Catch limits per week or month implies reduced possibilities to the plan operation during the year
  - In case of national quota overrun → gear at risk of catching the species must be prohibited for the remainder of the year
- The landing obligation created the need for a more flexible allocation system with better planning possibilities.

# Introduction of the new system

- SwAM is since 2014 given the legal right to introduce a system where fishing opportunities can temporarily transferred between individual fishermen **during the year**
- A new system to allocate fishing opportunities was introduced from January 2017.
- At the same time, the EU's so called "kilowatt day system" was abolished
  - no longer a limited number of kilowatt days per vessel for cod catching gears

# Time-line of work

- Consultation meetings since 2015 (industry, politicians, scientists)
- Autumn 2015: SwaM announces that the intention is to a new system based on individual allocations will be introduced from January 1 2017
- Spring 2016: Decision that a system with annual individual allocations, which are possible to temporarily transfer during the year, will be introduced in demersal fisheries from January 1 2017
- Autumn 2016: SwaM sends out a proposal for the new system
- January 1 2017: the new system is introduced
- Autumn 2017: proposal for some adjustments for 2018, for example the introduction of regional quotas of cod in the Baltic Sea
- Spring 2018: Evaluation of the new system

# Main features of new system (1)

## General

- Individual allocations based on the individual fishermen's reported catches during a reference period (2011-14), with some exceptions and adjustments.
- Fishermen can temporarily transfer fishing opportunities during the year with some limitations (e.g. concentration limits)
- Common unallocated quotas are reserved for small-scale coastal fisheries fishing with passive gears (except for nephrops fishery with pots).



# Main features of new system (2)

- Allocation of by-catches to selective gears (trawl with grid, pot)
- Additional allocation to those who do not reach a certain minimum level through their catch history
- Alternative allocation model used in the fishery for northern prawn:
  - Allocation not by catch history: alternative model based on e.g. active months proposed by industry, which means a "smoothing effect" as compared to catch history
  - The 62 vessels fishing for northern prawn divided in two groups - "smaller vessels" and "larger vessels"
  - Not possible to transfer quota between the two groups

# Some observations the first year

- Unexpectedly low quota utilization for many quotas – also those expected to be choke species
- Change in gear use – although the landing obligation is expected to put demand on increased use of selective gears, we could observe the opposite during 2017 (i.e. increased use of less selective gears such as trawl without grid)
- These and several other aspects was further analysed in an evaluation report

# **Evaluation of the first year with the new system to allocate demersal fishing opportunities**

# Evaluation: Purpose

- The contribution of the new system to facilitate the introduction of the landing obligation. This means to evaluate how the system:
  - facilitates for fishermen to comply with the landing obligation
  - contribute to incentives for compliance (e.g. that illegal discards does not take place).
- Evaluate how the administration of the system, such as practical handling of transfers, has worked out the first year.
- Identify lock-in effects in the present system.

# Methods used in the evaluation

- Descriptive statistics, e.g.
  - catches and quota utilization
  - reported discards
  - observed changes in fishing patterns and gear use, fishing efforts
  - transfers of fishing opportunities
- Survey to fishermen
  - The survey was sent in May 2018 to a total number of 244 fishermen. A total of 111 responses were received, corresponding to a response rate of 45.5%.
  - The survey aimed to give the management a better picture of how for example how fishermen perceive rules and regulations and how the transfers of fishing opportunities has worked out the first year.

# Main findings of evaluation (1)

- The new system means **better possibilities for individual fishermen to plan and to adjust their fishing opportunities** during the year. The survey showed that many fishermen find the increased planning possibilities as an improvement, and the majority of the respondents are positive to the fact that fishing opportunities are transferable.
- The low quota utilization in 2017 for many demersal quotas in Sweden seem to be due to a combination of factors:
  - Many fishermen have been **"cautious" and did not want to risk running out of quota**
  - **Natural variations** in the availability of fish
  - Quota has been locked in because of **frictions in quota trade market** (difficult to match transferees and receivers).
  - If **illegal discards** has taken place, then this means that the quota utilization on the paper is lower than in reality.
- **Quota transfers:** Despite the frictions in the quota trade market, a large number of quota transfers took place during the first year. The e-service provided by SwAM is considered to be easy to use. However, as noted above, the matching of transferees and receivers was not working well enough the first year, leading to lock-in of quotas.

# Main findings of evaluation (2)

By fishery:

- **Nephrops fishery:** the new allocation system together with the abolishment of the EU's effort system means more "freedom" and increased possibilities to plan fishing activities. An increase in the use of trawl without grid has been observed during 2017, as well as less reported by-catches. May be due to increased possibilities to avoid choke species, natural variations in stocks, and/or economic incentives to maximise value of fishing opportunities. The trend in gear use during 2017 is worrying with regards to compliance and may suggest that the system must be combined with increased gear regulations.
- **Cod in Baltic Sea:** In the Baltic Sea, the fishermen have not been limited by their individual allocations, but the low quota utilization is due to other factors (low prices, low quality fish, etc). Small share of active fishermen in this fishery, probably due to the low profitability.
- **Northern prawn:** High number of vessels with low activity.

# Analysis and discussion (short version)

- **Has the system contributed to facilitating the ability to comply with the landing obligation?**
  - Handling of choke species: high number of transfers of all quotas shows that the desired flexibility practically works, but difficult to know which transfers that intend to handle the choke species issue.
  - Annual allocations means increased planning possibilities, which the fishermen find positive.
- **Individual allocation of fishing opportunities and incentives**
  - Does the system mean incentives to comply? Individual allocations limiting and unbalance exist between catch- and quota composition in Swedish mixed fisheries → Economic incentives for illegal discards
- **Are there "lock-in" effects in the present system?**
  - "quota vessels" and licence holders who not active – inefficient and costly



# The future and challenges

- Economic incentives for fishermen to maximise the value of own fishing opportunities → risk for non-compliance
- Fishing opportunities are annual and can only be transferred during the year → uncertain income for fishermen
- How to handle the “lock-in” effects (quota vessels, etc)

The system concerned with challenges that needs to be considered in future adjustments:

- Should a “full ITQ-system” be the next step?
- How can such a system be designed in order to avoid unwanted effects? (such as unwanted structural change)