

# **Globalization and Fisheries: Incentive-based Management for Sustainable Cod Fisheries in the North Atlantic**

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This presentation gives an introduction into the topic of fisheries management and discusses regulatory mechanisms that had been enacted in order to solve the issue of overfishing. Focus is on the incentive-based mechanisms of catching quotas. The study elaborates whether the management instrument of quotas can make a contribution to the development of sustainable fisheries. For this purpose, three different fishing nations are compared from the perspective of economic history in the period 1977-2007, taking into account the development of the species of cod (*Gadus morhua*).

Theoretically, a reduction in fishing capacity is the key for solving the problem of overfishing and achieving sustainable resource utilisation. Ward et al. state that “both overfishing and overcapacity are really symptoms of the same underlying management problem – the absence of well-defined property rights”<sup>1</sup>. The introduction of a rights-based system into fisheries was supposed to give incentives for a rational utilisation of marine living resources. Based on the hypothesis that “incentive-based approaches can reward fishermen for sustainable practices and provide motivation to reduce or eliminate overcapacity and overharvesting”<sup>2</sup>, this paper investigates the evolution of quota management and the varying – in terms of sustainability - effectiveness of quota management structures in fisheries of the UK, Iceland and North Atlantic Canada. Starting from regulatory mechanisms within the zones of national jurisdiction along the coastline, the study transfers best practice approaches to the management of resource utilisation in international waters and discusses potential structures for fisheries quota management structures at the international level. Finally, it is put into question to what extent fisheries can be managed globally.

The presentation is going to be published in the IWIM scientific series ‘Blaue Reihe’ (IWIM Blue Series Discussion Papers) by the end of August 2010. It reflects the major components of the doctoral dissertation project: *Regulatory mechanisms in fisheries: The contribution of quota management to sustainable fisheries in the North Atlantic in the period 1977-2007*<sup>3</sup>, which was supported by the Bremen International Graduate School for Marine Sciences (GLOMAR). The author would like to gratefully acknowledge Prof. Dr. Karl Wohlmuth for his scientific support and for providing the opportunity to present the self-designed research topic in the outstanding discussion forum on 30 June 2010 at 4.00 - 5.30 pm at the University of Bremen, Wilhelm-Herbst-Str. 5, Floor 1, Room Number 1.14.

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<sup>1</sup> See Ward, J.M/ Kirkley, J.E./ Metzner, R./Pascoe, S.: Measuring and assessing capacity in fisheries 1, Basic concepts and management options, FAO Fisheries Technical Paper No. 433/1. Rome 2004, 1

<sup>2</sup> Grafton, Quentin R, Arnason, Ragnar/ Bjørndal, Trond/ Campell, David/ Campell, Harry F./ Clark, Collin W./ Connor, Robin/ Dupont, Diane P./ Hannesson, Rögnvaldur/ Hilborn, Ray/Kirkley, James E./ Kompas, Tom/ Lane, Daniel E./ Munro, Gordon R./ Pascoe, Sean/ Squires, Dale/ Steinshamm, Stein Ivar/ Turris, Bruce R./ Weninger, Quinn: Incentive-based Approaches to Sustainable Fisheries, 701-702. In: Canadian Journal of Fisheries and Aquatic Sciences, Vol. 63, Number 3. Ottawa March 2006, 699-710.

<sup>3</sup> Forthcoming Publication of the Dissertation in early 2011; for further information please see: [www.gloamar.uni-bremen.de](http://www.gloamar.uni-bremen.de).