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Theme: Modelling

Session: WeC1 - Global rent drain in world fisheries

Title: **Resource rents in the Norwegian fisheries**

Author(s): Rognvaldur Hannesson , Stein Ivar Steinshamn

Abstract: Present resource rents in Norway's fisheries were compared for different fleet structures. Alternative values of TACs were assumed, which is consistent with how most fisheries in Norwegian waters are managed. Total allowable catches (TACs) are set on the basis of advice by fisheries biologists where the economics of the industry plays a minor role. The TAC is then shared between the nations sharing the fish stocks, according to agreed formulas.

A model of the fisheries was implemented in GAMS. The basis for the model is fleet categorization used in the annual cost and earnings studies. Rents were maximized using an LP-approach, under various constraints regarding divisions of the total catches between different fleet categories. Currently the resource rent in Norway's fisheries is small and possibly even negative, depending on assumptions made with regard to capital costs and other uncertain factors. The potential rent is quite high and could be up to one half of the landed value, depending on constraints with regard to reallocation of fish catches between different categories of boats, and also on assumptions about capital costs and other uncertain factors.

In some fisheries in Norway it is now permitted to trade in fish quotas through trading in fishing vessels. Vessels can be removed from the fishery and stripped of their quotas, which then are transferred to other vessels. As the fleet categories involved have undergone downsizing their profitability has increased and the value of the fish quotas has gone up. Data from the cost and earnings studies were used to estimate the value of fish quotas and to study whether they reflect resource rent in the fishery. Transaction value of these fish quotas in many cases seem to overestimate the resource rent in the fishery, probably due to excess capacity in the existing fleet.