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Theme: Policy & Management

Session: TuE1 - Fish for the Future 1

Title: **Informing Policy Through Scenario Modelling: Profitable, Legal And Sustainable Fishing Fleets In Northern Ireland In 2013**

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Abstract: A key conclusion of 'Net Benefits' - the landmark 2004 strategic review of the UK fishing industry - was that A sustainable UK fleet must make long-run profits adequate to invest in new boats, improve safety levels, pay good wages for skilled staff and be able to survive in years when stocks are poor. (p.47, Cabinet Office (2004)). This paper presents a description of the method used to estimate the possible size of sustainable and profitable Northern Irish whitefish and nephrops fleet segments in 2013.

An optimisation model was constructed to determine the maximum number of fishing vessels in a fleet segment that could generate the minimum acceptable level of profit under a range of possible assumptions. The optimisation model allowed average vessel catch rates, fishing effort, skipper/crew wages and fleet size to adjust within practical bounds. The optimization model was combined with a 'futures analysis' which developed three sets of possible scenarios (Pessimistic, Best Guess and Optimistic) for the NI fishing sector in 2013 through a combination of data/trend analysis, consultation and round-table consensus-seeking discussion with experts and stakeholders. Each future scenario was developed using mutually consistent assumptions about : (1) expected outcome of TAC negotiations, (2) compliance levels, (3) continuance of recent diversification trends, (4) impact of Irish Sea warming, (5) fish and fuel price trends and (6) Nephrops marketing practices.

The analysis does not provide a blueprint for future development of the NI fishing fleet. Rather it provides an aid with which policy makers and industry can objectively and systematically evaluate possible future development pathways and identify key drivers which will have most effect on the fleet's capacity, profitability, legality and sustainability in the future.

Cabinet Office. (2004). Net Benefits: A sustainable and profitable future for UK fishing. London: Prime Minister's Strategy Unit.