Economic performance and fishing efficiency of marine capture fisheries

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This publication on the economic performance and fishing efficiency of marine capture fisheries was written by Dr Uwe Tietze and Dr Wilfried Thiele of the Fishery Industries Division, FAO Fisheries Department, Rome, and by Mr Rolf Lasch of the Institute of Agricultural Market Research, Federal Agricultural Research Centre, Braunschweig, Germany. The document summarizes the findings of national studies carried out in Antigua and Barbuda, Argentina, Barbados, France, Germany, India, Norway, Peru, the Republic of Korea, Senegal, South Africa, Thailand, and Trinidad and Tobago in 2002 and 2003. The paper on efficiency changes in the Faeroese pair-trawler fleet was written by Bjarti Thomsen, Research Manager, Fisheries Technology, Faeroese Fisheries Laboratory, Faeroe Islands. The paper on the comparison of twin-rig and single-rig trawling in Ireland in terms of relative fishing efficiency was written by Mr Dominic Rihan, Marine Technical Executive, Irish Sea Fisheries Board. The publication was edited by Ms Roberta Mitchell.
Abstract

With a view to safeguarding the important role that marine capture fisheries play with regard to employment, income, food security and achieving the Millennium Development Goals, up-to-date information on the sector is needed to monitor the effect of management measures, regulations and government policies on its economic and financial health.

This paper presents the findings of country level studies on the economic and financial performance of marine capture fisheries. The studies were carried out in 13 South American, Caribbean, European, African and Asian countries during 2002 and 2003. The 94 most important fishing fleets operating in these countries are covered. In 2002, these countries accounted for about 62 percent (South America), 8 percent (Caribbean), 42 percent (Europe), 24 percent (Africa) and 24 percent (Asia) of the marine catch in their respective regions, which again accounted for 89 percent of the global marine catch.¹ The studies update the findings of previous studies carried out in 1999–2000 and 1995–1997 respectively, which are reported in FAO Fisheries Technical Papers 377² and 421³.

The studies carried out in 2002 and 2003 show that all 94 types of fishing vessels had a positive gross cash flow and fully recovered their operating costs. When also considering capital costs, i.e. the costs of depreciation and interest, 88 of the 94 types of vessels, or 94 percent, showed a net profit after deducting these costs.

When comparing the fishing fleets of countries that were studied in both 1999–2000 and in 2002–2003, significant improvements in financial and economic performance can be seen in the Republic of Korea, Germany and Argentina, partially because of reduction and limitation of fleet capacity. In the other countries covered by the study, the overall picture remained similar, with some fleets improving their performance and others achieving less favourable results.

The overall sustained positive earnings situation in 2002 and 2003, as compared with 1999 and 2000, is to be seen against the background of an increase in fuel prices, an important cost component of capture fisheries, of about 9 percent⁴ between the two reporting periods, and of a decline in fish prices of up to 5 percent.

This paper also contains the findings of two recent empirical studies on fishing efficiency related to twin-rig and single-rig trawling that were presented at the 2004 Session of the FAO/ICES Working Group on Fishing Technology and Fish Behaviour.

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⁴ Calculated from differences of Conventional Regular Gasoline Prices (CRGPs) in Singapore and Rotterdam between 30 December 1999 and 31 December 2002.
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1 Introduction and background

Marine capture fisheries play an important role with regard to employment, income and the foreign exchange earnings of many countries. They also have a significant role in meeting the nutritional requirements of the population, providing food security, particularly for the poorer sections of coastal populations, and achieving the Millennium Development Goals. In order to safeguard this role, up-to-date information on the sector is needed to monitor the effect of management measures, regulations and government policies on its economic and financial health. The implementation of the Code of Conduct for Responsible Fisheries and the related Programmes of Action will be greatly facilitated when the economic and financial situation of the fisheries sector is duly taken into consideration.

This publication presents the findings of country-level studies on the economic and financial performance of marine capture fisheries. These studies were carried out from 2002 to 2003 with emphasis on the cost structure and economic and financial performance of fishing vessels. The studies form part of the regular monitoring of the economic and financial viability of marine capture fisheries, which is carried out by the FAO Fisheries Department in close cooperation with national fisheries research institutions, fisheries administrations and experts in selected countries in Asia, Africa, Latin America and the Caribbean and Europe.

The findings of previous studies carried out in 1999 to 2000 and 1995 to 1997 respectively, are reported in FAO Fisheries Technical Papers 377 and 421. The recent studies adhere to the same method as before, which is described in the two Technical Papers.

Between 1999 and 2000, 15 countries were covered. During 2002 and 2003, however, only 13 countries were studied, mainly because of funding restrictions but also because of other commitments of participating research institutions. Fewer countries than in 1999–2000 were covered in Asia – China and Indonesia did not participate this time – and Europe, where Spain was not included. The countries studied in Latin America and the Caribbean remained the same and another African country, South Africa, was added. Compared with the previous studies, the number of fishing fleets covered was reduced from 108 to 96.

The countries that participated in the present study are Antigua and Barbuda, Argentina, Barbados, France, Germany, India, Norway, Peru, the Republic of Korea, Senegal, South Africa, Thailand and Trinidad and Tobago.

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Coastal fishing boat, Norway

Stern trawler, Norway