

# Fishing for Answers

A recent study assessed the social and ecological outcomes of government subsidies for small-scale fisheries in Chile

Around the world, small-scale fisheries, because they are often associated with poverty, low levels of income and poor infrastructure, receive substantial support from governmental institutions. Such support may be through specific development programmes, investments in infrastructure, subsidies for vessels

fisheries in Chile offer a useful case study for understanding the relationships between subsidies and production trends. As in many other parts of the world, small-scale fisheries in Chile consist of high-valued resources, and production is, therefore, linked to international markets. Market forces drive the development of small-scale fisheries, stimulating the discovery of resources, developing new markets and influencing prices.

Some subsidies in Chile may be linked to improved management, as in the case of territorial use rights in fisheries (TURFs) in the benthic resources management areas (BRMAs), whose implementation has been greatly subsidized.

Any direct analysis of the influence of subsidies on the number of fishers (or fishing effort) is confounded by a lack of reliable data on the movement dynamics of fishers in and out of fishing-related activities, or along the coast.

## Administration

Several instruments and development programmes have been established to deliver these subsidies, which are administered by a number of State institutions such as the Regional Development Fund administered by the regional government offices (the *Regional Intendencias*), the Directorate for Public Works, which has funds for infrastructure, the Fund for Promoting Artisanal Fisheries, the Technical Co-operation Service, the Corporation for Promoting Production, the Solidarity and Social Investment Fund and various private institutions and foundations.

and fish-catching equipment, tax concessions on fuel, income support, and so on.

The provision of such support to the fisheries sector in general is the subject of international debate, sometimes highly polarized and often contentious. In particular, ineffectual management and governance systems tend to be overlooked by those who contend that all subsidies are bad because they promote overfishing and, therefore, ought to be banned. The term 'subsidy' has thus become politically loaded, implying a certain degree of impact on production or trade, which may not necessarily be the case.

In reality, very few empirical studies have explored the outcomes to be expected from subsidies, especially in small-scale fisheries. It is also unclear whether subsidies in small-scale fisheries can have positive outcomes under an effective management regime. Small-scale

Small-scale fisheries in Chile offer a useful case study for understanding the relationships between subsidies and production trends.

This article, by **Brian O’Riordan** ([briano@scarlet.be](mailto:briano@scarlet.be)), is based on “An Empirical Analysis of the Social and Ecological Outcomes of State Subsidies for Small-scale Fisheries: A Case Study from Chile” by Carolin I. Mondaca-Schachermayer, Jaime Aburto, Georgina Cundill, Domingo Lancellotti, Carlos Tapia, and Wolfgang Stotz, published in *Ecology and Society* 16(3): 17 2011. (<http://www.ecologyandsociety.org/vol16/iss3/art17/>)

A recent study assessed the social and ecological outcomes of government subsidies for Chile's small-scale fisheries through an analysis of 32 fishing villages, or *caletas*, over a 12-year period (1996-2007) in the Coquimbo Region (Region IV).

A *caleta* is a registered area where fishers land their catches, keep their vessels and gear, and from where they carry out shore-based activities. *Caletas* are also settlements with basic infrastructure, where fishing families live. They may be situated on public or private land. Those situated on private land are legally guaranteed access to fishing grounds. However, no infrastructure, such as piers, can be installed by the government on private land.

The region of the study includes 350 km of Chile's 4,000-km seaboard and is regarded as one of the country's most important small-scale fishery regions. There are 4,809 artisanal fishers in the region who are officially recorded in the artisanal fishery register maintained by SERNAPESCA, the national fisheries service.

Between 1996 and 2007, US\$25.55 mn were spent in the region for over 400 diverse projects and programmes to develop fisheries, improve working conditions of fishermen, and alleviate poverty. The subsidies were distributed for infrastructure and equipment (74 per cent), production (nine per cent), social programmes (15 per cent), research (one per cent) and TURFs (one per cent). The average annual funding of \$2.55 mn represents 48 per cent of the average annual value of regional landings. When considered on a per capita basis, this sum represented 59 per cent of the annual average income of an artisanal fisherman in the region. Additional regional funding initiatives totalled \$9.64 mn during the same period. This funding was targeted at artisanal fishermen but not at specific *caletas*.

According to the study, over three-quarters of the subsidies were spent in just one province, Elqui, where the capital of the region is located. *Caletas* in rural areas received fewer subsidy amounts for

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The *caleta* of Guayacán in Coquimbo, Chile. A *caleta* is a registered area where fishers land their catches, keep their vessels and gear, and from where they carry out shore-based activities

port infrastructure than their urban counterparts. The findings showed that subsidies were highest in those *caletas* that recorded the greatest value of landings, and lowest in *caletas* with higher levels of poverty and underdevelopment. Subsidies for roads and schools, and the supply of healthcare, electricity and drinking water, were concentrated in *caletas* closer to urban areas, than in rural areas in dire need of such assistance.

While the subsidies did improve the working conditions of fishermen in *caletas*, they did not have any effect on fish landings. Despite government

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The study also disproved the widely held assumption that governments provide subsidies to alleviate poverty and marginality. In this case, funding was skewed towards those *caletas* that reported the highest values of fish, which were landed at centres close to urban areas that are politically important as vote banks. Funds did not go to remote *caletas* in rural areas that suffered from high levels of poverty and underdevelopment.

In conclusion, the study noted that although empirical analyses do not demonstrate the power of subsidies to incentivise greater efficiency in fisheries, “the assumed detrimental effects of subsidies should not be presupposed”. It suggested more empirical study to examine the presumed relationship between subsidies and overexploitation of fishery resources, and to monitor and evaluate the outcomes of subsidies in fisheries. 3

grants amounting to more than half the per capita income of fishermen, *caletas* dependent on seaweeds, for example, showed a decreasing trend in per capita income, while those dependent on fish and giant squid displayed a stable trend.

The study failed to find any meaningful relationship between per capita share of subsidies and per capita income of fishers. It concluded that marine ecological characteristics, rather than subsidies, influenced fish production. It appears that the government financial grants were thus a consequence of, rather than a reason for, the ecological and productive history of fisheries in the region.

The study’s findings thus challenge two assumptions that commonly inform the debate about subsidization in small-scale fisheries: (a) that subsidies are granted to alleviate poverty; and (b) that subsidization will lead to overexploitation and consequent depletion of fishery resources. Also, as the study found out, better working conditions and improved access to fishing grounds and resources need not necessarily translate into incentives for new entrants to move into fishing.

#### For more



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**An Empirical Analysis of the Social and Ecological Outcomes of State Subsidies for Small-Scale Fisheries: A Case Study from Chile**

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**An Appraisal of the Chilean Fisheries Sector**