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Fiscal reform, sustainable fisheries, finance, marine conservation, economic incentives

Policy pointers

The government should reform the 50% discount on fuel tax, which disproportionately benefits industrial operators in Mozambique's shallow water shrimp fishery. Directing spending towards artisanal fishing communities will deliver greater social benefits.

To reduce overfishing without harming the wellbeing of artisanal fishers, policymakers could attach conditions to subsidies for the purchase of boats and engines.

Policymakers should increase support to artisanal actors for investing in shrimp preservation equipment. This could generate an additional US\$2 million a year through reduced post-harvest losses.

The Ministry of Sea, Inland Waters and Fisheries should clarify the rules, responsibilities and rights of community fishing councils, including the use of revenues earmarked for community-level fisheries management and development activities.

Fiscal reforms to benefit Mozambique's shrimp fisheries

Shallow water shrimp fisheries play an important role in Mozambique — for fishers, for communities and for the national economy. Like other natural resources, if managed sustainably, these fisheries can contribute to inclusive and sustainable development. But Mozambique's fisheries are under threat from overfishing, habitat destruction and pollution. By reforming key fiscal policies that affect the country's shallow water shrimp fisheries, decision makers in Mozambique can encourage more sustainable fishing practices and increase revenues for government programmes and local development initiatives. There are several options, which we set out in this briefing. And, if undertaken collaboratively and carefully based on detailed analysis, these fiscal reforms can deliver significant benefits to the country's fisheries and beyond, and help Mozambique make vital progress towards the Sustainable Development Goals.

Two-thirds of Mozambique's population live in coastal areas, where a fifth of households rely on fisheries for income generation and food security.¹ For many of these populations shallow water shrimp alone account for 3–5% of the total fisheries harvest.²

In Mozambique, shallow water shrimp is fished commercially by industrial, semi-industrial and artisanal fishers. The artisanal fisheries subsector is particularly important: in 2012, it generated 355,000 jobs³ (a number that has almost certainly grown with expanding populations and the increased value of shrimp on the global market). It also employs more women than the industrial sector does at all points in the value chain.⁴ Figure 1 provides an overview of the artisanal fisheries value chain.

Like other natural resources, if managed sustainably shallow water shrimp fisheries can

contribute to inclusive and sustainable development. But Mozambique's fisheries are under threat. Overfishing by large industrial fleets and the rapid and uncontrolled expansion of artisanal fishing, habitat destruction, pollution and the continued use of harmful gear have depleted stocks, with the majority showing signs of overexploitation.⁵

Mozambique has already committed to greening its economy (see, for example, the 2012 Green Economy Roadmap for Mozambique) and to the Sustainable Development Goals, which include the conservation and sustainable use of the oceans, seas and marine resources (SDG 14) and the elimination of poverty (SDG 1).

Changes to fiscal policy can help Mozambique move towards these goals by encouraging more sustainable fishing practices and increasing revenues for government programmes and local

Opportunities for reform could deliver significant economic, environmental and social benefits

development initiatives. Significant reforms are already taking place in the country's fisheries sector; there is not only the imperative, but the opportunity, to act. Based on a diagnostic analysis informed by literature review, key informant interviews and focus group discussions,⁴ this briefing explores the impacts of current fiscal policy and how they could be improved.

Current fiscal policy has winners and losers

Mozambique's fisheries and fishers are affected by several fiscal tools — broadly, how the government collects revenues (taxes and charges) and how it spends them (subsidies and public expenditure). The main taxes and charges are fishing licences, fishing rights and fines levied. The main forms of subsidies are a 50% discount on tax for fuel, import tax exemption for imported inputs, and subsidies for ice, gear, vessel construction and engine purchase.

These tools have unequal impacts on different types of fishers and other stakeholders along the value chain. They also have different — and sometimes conflicting — impacts on different development priorities (see Box 1). Take, for example, **the 50% reduction on fuel tax for fishers**. As only 5% of artisanal fishers use motorised boats,⁶ this subsidy **disproportionately benefits industrial operators**.

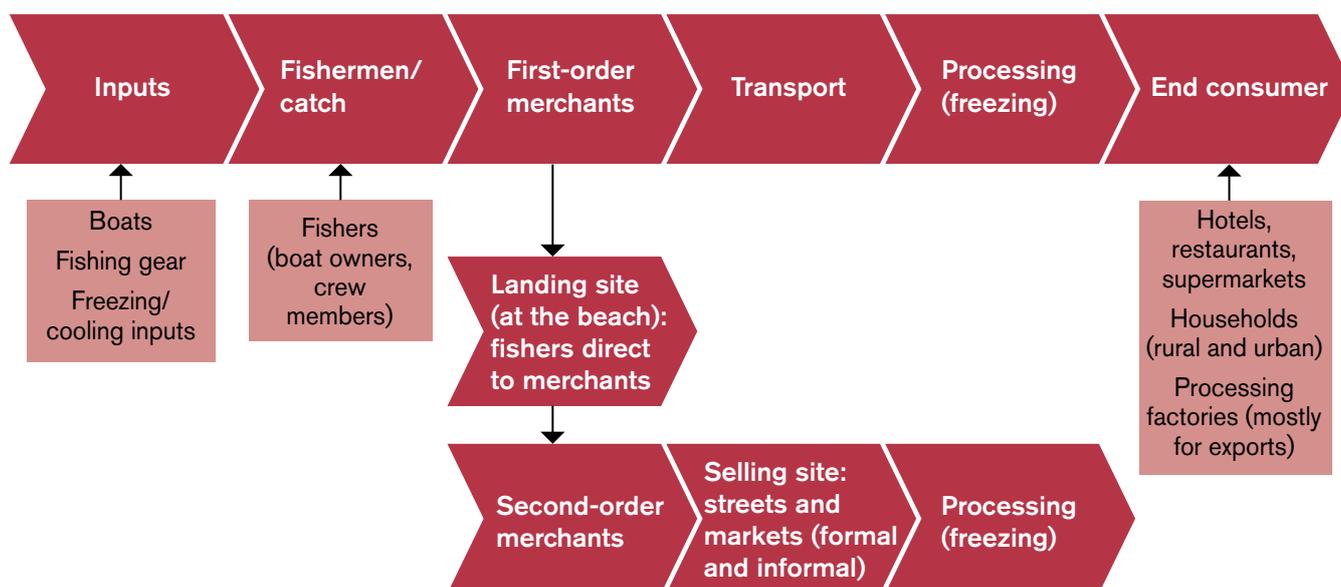
Fuel subsidies are also linked to higher CO₂ emissions, **contributing to climate change** and limiting Mozambique's ability to reach its environmental targets. Moreover, by encouraging increased fishing activity, the fuel tax subsidy places **even more pressure** on the already overfished shrimp fishery. In this way, it may even **lower productivity** as measured as fishing effort or production per unit of input, all while coming at a **high cost to the state budget** — possibly more than US\$1.1 million (71 million Mozambique metical).^{7,8}

Subsidies for boats and engines, which may have a seemingly **positive impact for artisanal fishers in the short term**, also encourage overfishing. Beyond the environmental impacts, this may have a **detrimental effect on fishers' livelihoods and wellbeing** in the longer term. Such subsidies largely **exclude women**, who own only 1.1% of all fishing gear⁹ and are much more involved in the pre- and post-harvest stages of the shallow water shrimp fishery value chain, such as freezing and packing.

Reaping dividends through fiscal reform

By better understanding these 'winners and losers' of fiscal policy as it applies to Mozambique's fisheries, we have identified opportunities for reform that could deliver significant economic, environmental and social benefits. Our analysis suggests that, given the artisanal subsector's comparative significance in terms of employment throughout the value

Figure 1. Artisanal fishing value chain



Source: adapted from Brugere (2014)⁹

chain, support to artisanal fisheries is likely to deliver higher social benefits than support to the industrial subsector, at least in the short term.

Reforms for more equitable outcomes

For the highest all-round economic, environmental and social returns, reform the discount on fuel tax. The exact shape of these reforms will depend on an in-depth assessment of the effects of the current discount, and on other measures that could reduce costs. However, by modifying this discount, the Ministry of Sea, Inland Waters and Fisheries (MIMAIP) (working closely with industrial operators and the Ministry of Economy and Finance) could discourage overfishing, reduce CO₂ emissions and improve livelihood sustainability. It could also reduce lost revenues to the state budget, which could free up funds for more effective poverty reduction programmes.

Reform subsidies for the procurement of boats and engines to prevent overfishing. The current subsidies aim to make prices more affordable for artisanal fishers. But they also encourage fishing activity, which threatens sustainability. We do not suggest removing this subsidy altogether — and any reform will require an in-depth assessment of potential impacts. Rather, we propose that MIMAIP work with the National Institute of Fisheries Research (IIP) to tie it to certain conditions. These conditions could include increased fishing net mesh size so that it excludes shrimp, or subjecting motorised artisanal vessels to requirements similar to those for semi-industrial shrimp fishing (such as seasonal closures and fishing to a maximum distance from the coast).

Stimulate local job creation by modifying the exemption of import tax for imported inputs. Local production of fishing inputs is limited, and to ensure the necessary supply of these inputs, the government exempts them from import tax. This benefits all fisheries operators but may hamper local job creation. By introducing gradual reforms to the current import tax exemptions so as to favour supplies that could be locally produced, the government could increase local employment. To ensure that reforms do not reduce the accessibility of legal fishing gear or increase the use of illegal fishing gear, MIMAIP should work with the private sector, fisheries operators, the Ministry of Economy and Finance and the National Tax Authority to assess what impact removal or reduction in exemptions might have.

Box 1. What's the problem with fisheries subsidies?

As many as 90% of the world's global marine fisheries are fully fished or overfished.¹¹ Yet instead of enacting measures to reduce overexploitation of fish stocks (which the World Bank and the Food and Agriculture Organization estimate could generate benefits to the fisheries sector of up to US\$83 billion annually),¹¹ many governments have introduced subsidies that enhance capacity and thereby encourage overfishing. These subsidies come out of the government purse — in 2018 capacity-enhancing subsidies totalled more than US\$22 billion.⁸ And the majority (90%) go to large-scale industrial sectors rather than artisanal, exacerbating existing inequalities.¹²

Reduce the rates of non-payments of artisanal fishing licences to increase government revenues. Many artisanal fishers do not possess proper fishing licences. The government could increase revenues by up to US\$48,000 without increasing fees through better collection of artisanal licence payments. The MIMAIP could improve the success rate of its annual artisanal licensing campaigns by better cooperating with district authorities and community fishing councils (CCPs). It might also consider simplifying licence requirements (for example, allowing artisanal fishers to pay in instalments) to encourage them to obtain (and pay for) licences. This would increase revenues both for the national treasury and for fisheries management and has potential to strengthen community participation.

Policies to manage resources sustainably

Reduce shrimp losses and deliver social and environmental benefits by strengthening incentives for investing in cooling and freezing equipment. Artisanal fisheries face significant losses of their shrimp catches during the harvesting and post-harvesting stages. Cooling and freezing equipment can help fishers and merchants to drastically reduce these losses, but without capital or incentives this is difficult for many — particularly disadvantaged women merchants and poorer fishers. Measures to improve incentives for investment in such equipment would not only have clear positive environmental and social impacts but could also generate an additional US\$2 million (150 million Mozambique metical) annually in artisanal shallow water shrimp fisheries.

Protect shallow water shrimp fisheries by investing in programmes that prevent the destruction of mangroves. Mangroves provide important breeding grounds for shrimp. But these ecosystems are being destroyed due to demands for land and fuel, and the reliance of many poorer members of fishing communities on them for their livelihoods. Mangrove destruction leads to an income loss of between US\$1.1 million and US\$1.6 million a year; the value of protecting them to generate income through fisheries could be as much as US\$855 per hectare.¹⁰ MIMAIP should increase investment in programmes that address the causes of mangrove destruction and encourage mangrove reforestation, such as interventions that promote low-cost building materials, and alternative energy and cooking fuels. Such interventions, which will require close coordination with the Ministry of Mineral Resources and Energy and the Ministry of Land and Environment, could improve shrimp stocks in the long term and bring additional economic and social benefits.

Recognise and encourage engagement and ownership from local CCPs to strengthen local fisheries management. The higher success rate of licensing campaigns that involve CCPs is just one example of the positive impact of cooperation with these organisations. And, given that fisheries management is expected to be further decentralised, the government should take steps to increase involvement from these CCPs and to avoid conflict. To do this, MIMAIP should clarify in Ministerial Decree 60/2018 the roles and responsibilities for CCPs — and the rules on using funds earmarked for community development. It should also encourage community-developed management plans such as supporting local job creation (training and initial investments) along the pre-harvest and post-harvest stages of the value chain. Revenues for these activities should be channelled to the local level.

Careful, considered and collaborative

Fiscal reforms must be implemented carefully to avoid negative impacts, particularly on more marginalised groups such as women. MIMAIP and other relevant ministries should undertake careful and detailed assessments of the distributional economic, environmental and social impacts of any proposed changes and put in place systems to mitigate negative consequences.

Of course, there will always be a certain number of trade-offs, and to best manage these the government may need to employ several different strategies. For example, increasing fishing licence fees may push more fishers into illegal fishing. Therefore, the introduction of measures to reduce fishing effort must consider alternative livelihood opportunities or compensation packages — paying special attention to the needs of women, who are more likely than men to lack employment opportunities.

MIMAIP will need to work closely with various actors involved in the shallow water shrimp fisheries, including the private sector; industrial, semi-industrial and artisanal operators; district councils and CCPs; and organisations such as ProAzul (the Blue Economy Development Fund). Many of the recommendations from this research go beyond the fisheries sector itself and will also require close coordination with other ministries, particularly the Ministry of Economy and Finance and National Tax Authority where we are talking about reforming taxes and subsidies.

Elísio Nhantumbo, Baiba Gaile and Annabelle Bladon

Elísio Nhantumbo works for the Ministry of Economy and Finance, Mozambique. Baiba Gaile is an independent consultant specialising in environmental management. Annabelle Bladon is a researcher in IIED's Shaping Sustainable Markets Group.



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Contact

Annabelle Bladon
annabelle.bladon@iied.org

80–86 Gray's Inn Road
London, WC1X 8NH
United Kingdom

Tel: +44 (0)20 3463 7399
www.iied.org

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Notes

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