

# Findings of the baseline and scoping study on freshwater inland fisheries

South Africa's inland fishery resource endowment has been overlooked as a means of supporting sustainable livelihoods in the democratic era, lacking a guiding policy and legislation aligned with the country's rights-based constitution. The absence of an equitable inland fishing governance framework with defined use rights has resulted in growing unmanaged and unsustainable fishing practices, conflicts between resource users, and the perpetuation of past exclusion of rural communities from livelihood and economic opportunities linked to aquatic natural resources.



In response to this problem, the Water Research Commission launched a directed research project entitled "Baseline And Scoping Study On The Development And Sustainable Utilisation Of Storage Dams For Inland Fisheries And Their Contribution To Rural Livelihoods" to provide a knowledge base to inform the development of policy and institutional arrangements for inland fishery governance.

If South Africa intends to establish an industry based on inland fisheries, the Department of Agriculture, Forestry and Fisheries (DAFF) will need to draw up a clear policy to manage and regulate the country's resources. At the moment, such policies do not exist. However, a report published by the Water Research Commission (WRC) on the sustainable use of inland fisheries in South Africa will provide guidelines which will assist the DAFF in establishing appropriate policies.

#### Sustainable uses for inland fisheries

This is according to Dr Gerhard Backeberg, executive manager of Water Utilisation in Agriculture at the WRC. In January 2015, the WRC completed a four-year scoping study on the sustainable use of inland fisheries in South Africa. The report finds there are three sustainable uses for inland fisheries in the country - recreational fishing, subsistence fishing and commercial fishing.

As the three activities compete for resources, this could lead to conflict if property rights are not explicitly recognised and enforced. "If the rules of the game are not clear, it could lead to conflict, and this needs to be clarified," says Dr Backeberg.

The government is keen to set up an inland fisheries industry. Speaking at the Eastern Cape Entrepreneur of the Year awards in Mthatha in the Eastern Cape in August last year, Minister of Agriculture, Forestry and Fisheries, Senzeni Zokwana, said the establishment of an inland fisheries industry was key to food security and marine conservation.

#### The potential of inland fisheries

Inland fisheries use natural water sources and public dams. In contrast, aquaculture is the commercial farming of fish. Only angling for recreational purposes and subsistence fishing seem to be viable options in the creation of an inland fisheries industry, as the resources for a commercial inland fishing industry are too limited, according to the WRC study "The tonnage of fish is just not there," says Dr Backeberg. Using a geographic information system (GIS) model to identify regions that have high potential for fisheries, the researchers who undertook the WRC project, estimate that large South African dams have a production potential of only 15,000 tons.

In comparison, South Africa's marine fishery industry yields 600,000 tons annually. "The relatively low production potential of South African inland water bodies thus precludes the development of industrial or large-scale commercial fisheries on inland waters," the report states. Except for a small number of communities, South Africa lacks a traditional fishing culture. However, due to the introduction of fish species such as carp and trout, a strong and organised recreational fishing sector has developed.

### The role of recreational fishing

Recreational fishing, with its strong links to the tourism industry, is by far the most economically viable option for growing the inland fisheries industry. It is estimated that more than 1,5 million people are involved in recreational angling in South Africa. Angling is recognised and organised as a sport through official sports bodies. A 2007 study by the SA Deep Sea Angling Association estimates that an average affiliated angler spent around R7,500 per year on fishing and the economic impact of these anglers was about R900 million per year. Since the 1990s, however, the number of subsistence fishers has increased.

With the evidence contained in the baseline and scoping report, Dr Backeberg is convinced that subsistence fishing can certainly provide improved food security and better livelihoods for many communities, but increasing levels of conflict between recreational anglers and communities fishing for their livelihoods can lead to problems. "As documented in the report, the conflict between recreational fishers and subsistence fishers already come to a head at specific dams, and the authorities at provincial or national level will have to intervene. Some way of co-existence will have to be found," says Dr Backeberg. Those who are better organised will always win and it seems to be the recreational fishers, but there are others, in particular, subsistence fishers, who need to be given opportunities to improve livelihoods," he says.

## A need for clear regulations and guidelines

The government's role is to clarify access rights, establish effective regulations and guidelines for co-management and governance of inland fisheries. Without a clear policy and framework, the competition for the limited resources might lead to increasing problems, not only for the communities making a living from fishing, but also for the country's natural resources and biodiversity.

The report states that the DAFF should promote cooperative governance with other departments and public sector agencies with mandates relevant to inland fisheries governance. "DAFF should formulate the policies, look at instruments that are available to use, such as the National Environmental Management Act and assess if it is adequate to manage the resources.

If it isn't, then specific legislation and strategies for implementation will be required," says Dr Backeberg. "Through the evidence provided by this study, the DAFF now has a well-researched framework, which should be seriously considered for application."

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