

Inland Fisheries

Making space for inland fishers



The importance of inland fisheries to rural livelihoods has been largely overlooked until now. Petro Kotzé reports on a recently completed study to better understand this sector.

All photographs courtesy Rhodes University

From late 1800 to mid-1900, inland fisheries received ample attention and support. Our country's first freshwater fisheries legislation was promulgated, and state hatcheries were created. Mostly, these stocked alien fish species for recreational purposes. The booming dam building era of the 1960s and 1970s saw large promotion of inland fisheries for commercial and livelihood purposes as part of the then-'homelands' development policy, but proved to be mostly non-viable due to the low prices of freshwater fish and the problematic concept of so-called development projects in former homelands.

Cut to over four decades later, in the post-1994 era, and inland fishery

management is largely at the beck and call of biodiversity conservation, and mostly falls under the mandate of provincial environmental management agencies. Since the original legislation has been drawn up, little attention has been given to the social and economic aspects of inland fisheries, and the livelihoods and rights of those dependent on it. This lack of policy to steer the allocation of rights is a problem that is causing underlying tensions between a growing small-scale subsistence or artisanal fisher group and the lucrative recreational fishing sector.

"Inland fisheries have been overlooked in legislation," says Prof Peter Britz of the Department of Ichthyology and

Fisheries at Rhodes University. Prof Britz was the project leader of a four-year, Water Research Commission (WRC) initiated project that aims to support the development of policy and institutional arrangements for inland fishery governance. The two-volume project report, called the *Baseline and scoping study on the development and sustainable utilisation of storage dams for inland fisheries and their contribution to rural livelihoods* (WRC Report nr. TT 615/1/14 and TT 615/2/14) was published earlier this year, and sets down the knowledge base that will inform new policy to address the problem. Prof Britz himself is advising on the policy process with the Department of Agriculture, Forestry and Fisheries (DAFF).

The project was executed by a trans-disciplinary team of researchers with fisheries and social science backgrounds from Rhodes University's Department of Ichthyology and Fisheries Science; the University of the Western Cape's Institute for Poverty, Land and Agrarian Studies (PLAAS) and the South African Institute for Aquatic Biodiversity (SAIAB).

Who are we talking about?

Small-scale fishing in rural communities is largely an informal activity with no established system for stakeholder representation or data gathering. Yet, on 77% of waterbodies surveyed, small-scale fishing for livelihood purposes was present. The activity is not rooted in indigenous fishing traditions, but rather an adaptive livelihood strategy to modern socio-economic circumstances. Most small-scale fishers were poor, but the role of fishing in their livelihood strategies was diverse, ranging from a part-time subsistence activity to a full-time artisanal occupation. Value chains for freshwater fish were short, with little evidence of value adding. The fish were generally sold fresh and informally, or consumed by the family. In certain localities a significant daily income could be generated to cover family living costs. Rural community members also practised recreational fishing, but fish caught was usually consumed.

Conflicts were present on some of the water bodies due to a lack of recognition of customary common pool rights, and the lack of capacity of communities to participate meaningfully in existing governance institutions. Community narratives around inland fishery use often reflected unrestituted legacies of dispossession and marginalisation from customary resource access arising from apartheid and colonial era dam building, forced removals and land dispossession. Formal statutory and customary or informal resource governance systems existed side by side on many water bodies with varying degrees of cooperation.



A fisherman's catch at Lake Fundudzi, in Venda.

While small-scale fishing was often tolerated by the authorities, and in some instances actively supported, the fishers remained vulnerable to prosecution, and their activities were often marginalised by other resource users and stakeholders. Artisanal gill netting by outsiders with vehicles and boats was seen by local communities as inequitable and unsustainable. Gill netting by local community members was tolerated on most water bodies, although some concerns were expressed about the sustainability of the method.

In comparison, the recreational angling sector has a substantial participation rate (estimated to be of the order of 1.5 million participants) and a significant economic impact associated with the tourism sector and angling services and supply value chains. This activity was recorded on 69% of dams surveyed during the study.

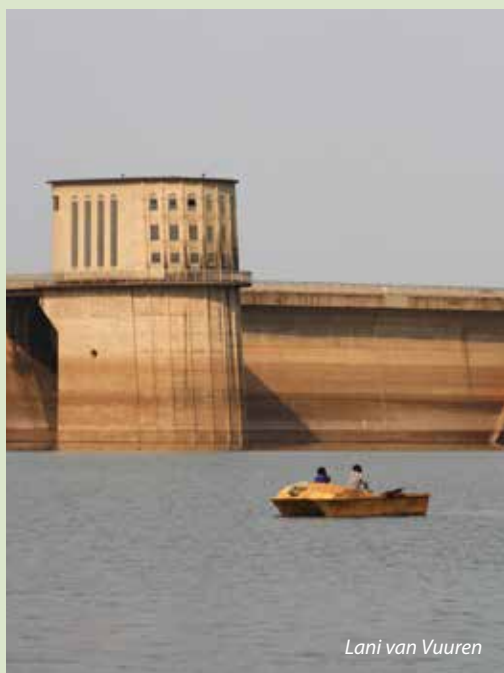
This popular activity on state dams is supported by the Department of Water Affairs (DWA) policy of promoting recreational activities on these dams. Yet, despite its economic impact and ability to create rural livelihoods and decent jobs, recreational angling is not recognised or represented as a fishery sub-sector by the DAFF.

To some degree, the challenges to creating a viable commercial market for inland fisheries have not changed since the 1960s and 1970s. "There has never been a big commercial market for freshwater fish, and there is still not a big economy attached to it," says Prof Britz.

In essence, the productivity of inland water is deemed too low to support large-scale commercial fisheries. Most formal commercial fisheries attempted on inland waters in recent years have proved non-viable due to the low yields and the low prices for the fish. According to Prof Britz, "the value of inland fisheries lies more in their value as a food security safety-net as well as the add-on services from recreational fishing."



Fishermen at Zeekoevlei, in Cape Town, take a moment to smile for the camera.



Lani van Vuuren



Above: A recreational fisherman shows off his latest catch. About 1.5 million people participate in the South African recreational angling sector.

Left: Subsistence fishermen at the Pongolapoort Dam wall.

The researchers concluded that recreational, as well as small-scale subsistence and artisanal fishing for livelihoods purposes are the optimal forms of inland fishery utilisation for maximal socio-economic benefit.

What is the current situation?

Resource management plans for dams are predominantly designed for recreational fisheries, notes Prof Britz, "but, what about the social economic objectives?" Rural communities have been excluded from dams, and new policy and legislation should rectify this.

Such legislation should aim towards meeting two objectives, he says. The first is recognition of the right to fish for a livelihood. "Current policy is silent on that, and as a result, many are using recreational rules to fish, or fish illegally." The second is empowering people to improve their livelihood.

"Basically, it's all about rights," Prof Britz explains. There are people that are dependent on fishing from dams and rivers for their livelihood, and have been for generations, but they are often prevented from legally benefiting from the resource, while recreational fishers are allowed to reap benefits.

Mitigation of the current situation is marred with challenges and obstacles. Researchers found that any existing inland fisheries governance institutions are fragmented and incomplete. This is in stark contrast to South Africa's marine fisheries, which are governed by the Marine Living Resources Act. While the National Environmental Management Act (NEMA) provides for sustainable development and equity through access to natural resources, a policy specifically dealing with inland fisheries is lacking. Rather, fishing on inland waters

is primarily governed as a recreational activity based on biodiversity considerations, while fishing for one's livelihood are not provided for at all. This is despite constitutional recognition of customary practices and the need for equity of access to natural resources.

According to the WRC report, the management mandate for inland fishery resources is currently delegated to the provincial environmental and nature conservation authorities, while the DWS and various authorities regulate activities on dams. The only specific legislative provisions governing the use of inland fish resources are rudimentary fishing 'effort control' rules prescribed in the provincial environmental acts and ordinances, which have their origin in pre-democratic era policies.

While small-scale fishers from local communities are generally regarded as having a legitimate claim to fish, in the absence of a supporting rights-based governance framework, their activities are usually illegal, unmanaged and often unsustainable. This has led to growing conflicts between water users on a number of impoundments.

According to the study report, the equitable and sustainable use of South Africa's inland fish resources requires fundamental reform of the very rudimentary existing inland fishery governance arrangements. The researchers further concluded that the governance reform process should be led by the DAFF, due to its primary resource sector development mandate which now includes inland fisheries.

Following the start of the WRC study in question and the emphasising of the plight of inland fishers, the DAFF announced in 2012 that it would create an inland fisheries policy and programme.

The way forward

The policy will be drafted in alignment with the constitution, as well as best-practice international principles for sustainable fishing, such as those set up by the Food and Agricultural Organisation of the United Nations, notes Prof Britz.

Stakeholders from all sectors involved will then be called upon to participate in the process before a policy is synthesised. Issues such as inequity, capacity building and training and even public-private partnerships will have to be taken into consideration. After this, actual interventions such as legislation, licensing and management plans will have to be put in place.

“You have to design governance arrangements for each dam and bring the stakeholders into the management plan. We need to think how to design it to be fair and achieve the goals, and get the buy-in from the recreational users.”

Issues that have been raised at stakeholder meeting include concerns around any damage to the recreational fishing industry should fishing for livelihoods be formalised. Yet, Prof Britz is at pains to point out that there will be participation from all stakeholders allowed before any policy is drafted. Furthermore, he is mindful to point out that such legislation should not be in lieu of recreational anglers, but that access to that value chain could rather help create decent jobs and food security in rural areas.

Food security is understood to be ‘means of access to a secure supply of nutritional food’ so this can either be producing or harvesting food oneself or a secure job which provides the means. Thus decent jobs in recreational angling or small scale fishing value chains can provide food security. The policy would need to look at the best way to achieve this, he says. “The huge economy attached to recreational fishing cannot be compromised.”

The DAFF is planning to have a policy gazetted by this time next year.



To obtain a copy of the final reports, *Scoping study on the development and sustainable utilisation of inland fisheries in South Africa, Volume 1: Research Report (Report No. TT 615/1/14)* and/or *Volume 2: Case Studies of Small-Scale Inland Fisheries (Report No. TT 615/2/14)* contact Publications at Tel: +27 (0) 12 330-0340; Fax: +27 (0) 12 331-2565, Email: orders@wrc.org.za or Visit: www.wrc.org.za to download an electronic copy.

Conclusions and recommendations of the WRC inland fisheries project:

- 1. DAFF is the lead agent for inland fisheries.** The DAFF should promote cooperative governance arrangements with other departments and public sector agencies with mandates relevant to inland fisheries governance.
- 2. Policy and legislation.** Policy and legislation to implement the DAFF inland fishery mandate should be developed, and be aligned with DAFF policies such as the Growth and Development Plan 2011- 2030, Zero Hunger, and Marine Small-scale Fisheries Policy.
- 3. Non-industrial fishery.** Inland fisheries are non-industrial and the sector is made up of mainly recreational, subsistence and small-scale commercial fishing activity. This user profile will shape management and governance approaches.
- 4. Developmental Approach.** Due to the context of rural poverty, inland fishery governance requires development interventions to address issues of equity and capacity in order for communities to realise livelihood opportunities based on inland fisheries.
- 5. Equity and Rural livelihoods.** Legal recognition of the use of inland fisheries for socio-economic benefit and the support of rural livelihoods is required. Inland fishery policy must take into account the historical inequity in access to inland fisheries and promote development interventions that empower disadvantaged rural communities.
- 6. Co-management.** Each dam is unique in terms of land and water rights, economic opportunities, production potential and stakeholder composition, so specific local management arrangements are required. Cooperative governance arrangements and institutions for co-management are thus essential to inland fishery development and management.
- 7. Precautionary approach.** A constraint to promoting inland fisheries on most South African water bodies is the lack of knowledge about the productivity and sustainability of the resource, and the potential impact on indigenous species biodiversity. A precautionary approach to resource exploitation should be adopted. Research surveys and stock assessments will be required to address resource information gaps and develop fishery management plans.
- 8. Training needs.** Government managers require training in inland fishery management and should be provided with a “toolbox” of management resources and skills to address the situation on specific water bodies.
- 9. Value chain approach.** Inland fishery policy needs to be based on a value chain approach in order to maximize the socio-economic benefits. The recreational fishing value chain is the most economically valuable component of inland fisheries, and subsistence fishing plays a vital food security role. Public sector interventions that enhance the value of fish to local communities should thus be promoted; for example, equity of access to fishery resources for rural communities and capacity building to participate in all levels of the associated value chains.