

UGANDA

Correcting the undervaluation of property rights in fisheries

With a fish population density of between 47,000 and 55,000 fish/hectare, and a fish biomass of $2,334 \pm 5.6/\text{km}^2$, Lake George was considered, in the late 1960s, being the most productive lake in Africa and perhaps in the world. Located in the Queen Elizabeth Protected Area, it is known for its flagship bird species such as the *Shoebill Balaeniceps rex*, and it became the first Ramsar site in Uganda because of its rich biological diversity.

The lake has supported livelihoods and licenced commercial fisheries since the 1950s. By the end-1990s, Lake George was severely overfished resulting in declining volumes of catch and average fish catch size. Overfishing was attributed to the undervaluation of prices charged for the 145 fishing licenses for Lake George issued each year, as well as to illegal fishing. Limited monitoring and enforcement capacity was a direct result of the insufficient revenue collected via the license fee. The lack of resources for effective monitoring was aggravated by the lack of institutional mechanisms for the local communities to support in enforcement initiatives. As a result, illegal fishing – both by licensed and non-licensed fishermen – was widespread, with the number of canoes fishing in the lake being three times the permitted number.

To remedy the situation, a reform in 1998 introduced the co-management of local fishing communities by establishing Beach Management Units (BMUs) which are financed by retaining 25 percent of revenues from the issuance of fish movement permits at the landing sites. A lake-wide organization called Lake George Integrated Management Organisation (LAGBIMO) was established with a view to harmonise fishing practices across the BMUs and to provide a framework for coordination and coherence in policy planning and implementation. It is composed of representatives of the BMUs and of local governments. Moreover, the number of licenses was significantly increased – from 142 to 326 in 2001.

The higher revenue from the licenses and the landing fees allowed more effective monitoring and enforcement. Together with the co-management implemented, this temporarily reduced the number of illegal fishermen operating on the lake and created incentives for legally licensed fishermen to stop illegal fishing (out of season, at night).

In the past years, illegal fishing and the utilization of illegal gear has increased again and constitutes an ever more serious challenge to the resource, including severe negative impacts on landing volumes in recent years. The increasing pressure on the resource has to be understood against the backdrop of a dramatically growing fisheries sector in the last decade in Uganda, with export revenues increasing from US-\$ 400,000 in 1998 to over US-\$ 145m in 2008. According to the government, due to overfishing and a decline in fish production from natural stocks, the Uganda fishery sector is currently facing a crisis. In order to address this crisis, measures currently under consideration or already being implemented include: (i) the temporary closure of fisheries in order to allow the resource to recover; (ii) enhanced monitoring and enforcement (e.g., through the issuance of license plates for fishing vessels); (iii) further productivity increases by promoting aquaculture (currently non-developed).

Lessons learnt

Incentive-based instruments must be regularly reviewed for continued relevance, efficiency and cost-effectiveness. Special effort needs to ensure that fiscal instruments are calibrated to ensure

that prices continue to reflect the resource's true economic value and the real cost of resource and ecosystem degradation.

The establishment of co-management institutions and of mechanisms to sustain monitoring and enforcement expenditures is generally recognized as good practice. However, in the context of a high-growth environment, resulting in an ever-increasing pressure on the resource, sustaining the effectiveness of these institutions and mechanisms for managing a finite (although renewable) resource remains a considerable challenge.

Sources: Bahiigwa et al. (2003); Government of Uganda (2009); Kaggwa, R. (2009); Kazoora, C. (2010); New Vision (2010).