

An institutional approach for developing South African inland freshwater fisheries for improved food security and rural livelihoods

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ABSTRACT

South Africa has over 4 700 storage dams, about 700 of which are owned and controlled by Government. Public dams were primarily constructed for domestic, irrigation and industrial water supply. Over time secondary uses for recreation and tourism have been established. Many of the public dams have been stocked with indigenous and alien fish species, predominantly for recreational angling. Given widespread rural unemployment, poverty and undernourishment, the development of inland fisheries on public dams and natural water bodies has much potential for improving rural livelihoods and food security. There is also potential for inclusion of communities in other value chains linked to economic activities around public dams such as recreational fishing and tourism.

The public dams and natural water bodies fall under various implicit institutional arrangements depending on primary and secondary activities on a given water body. These determine the existing formal and informal power dynamics and related decision-making arrangements and controls under current use-right practices. This paper analyses the existing property rights that determine access, co-management options and governance arrangements necessary to promote sustainable development of inland fisheries in South Africa. Attention needs to be given to the various ways of explicit definition and enforcement of property and access rights if communities are to realise the potential benefits from use of public dams for fisheries and other economic activities. Achieving this will require a developmental approach based on principles of inclusive, representative, equitable, accountable and effective governance. Leadership by the line agency – Department of Agriculture, Forestry and Fisheries – will be critical for success of such an initiative.

Keywords: Storage dams, freshwater fisheries, poverty and livelihoods, property and access rights, governance, developmental approach, South Africa

INTRODUCTION

Small-scale fisheries play a significant role in food security, poverty reduction and income generation (Jentoft and Eide, 2011; Béné et al., 2010; Béné et al., 2007; Heck et al., 2007; FAO, 2003). The importance of small-scale fisheries is further underlined by the fact that this sector employs over 95% of all men and women engaged in fisheries worldwide and that of these more than 90% are to be found in developing countries (FAO, 2009). In Africa, it is estimated that the fishing sector provides income for over 10 million people and contributes to the food security of over 200 million people (FAO, 2005). Inland fisheries are a vital part of fisheries in Africa, especially Sub-Saharan Africa where the large lakes (Victoria, Malawi/Niasa, Kariba, Bangweulu, etc) occur. In South Africa, however, fisheries have historically been dominated by the commercial marine sector, even though the country has hundreds of inland storage dams and impoundments. Despite their potential, these inland water resources remain largely under or unutilised for provision of fish protein and nutrition security, income and employment for the rural poor living in the vicinity of these resources. One of the key reasons why this potential has not so far been realised is the lack of Government policy on inland fisheries and capacity required to develop and support the sector (McCafferty et al.,

2012; Hara and Ngwexana, 2011). An important consequence of this lack of policy is the unclear definition, specification and insecure recognition of property rights to these resources and also the lack of viable management approaches for the sector.

Research on freshwater inland fisheries in South Africa

Given the existing knowledge gaps, a baseline and scoping study was initiated by the South African Water Research Commission (WRC) on the development and sustainable use of storage dams for freshwater inland fisheries and their contribution to rural livelihoods (WRC, 2011). The conceptual framework for research (Fig. 1) on the sustainable utilisation of inland fisheries proposes a holistic enhancement of all the key sub-systems of the sector: better knowledge and understanding of the resource base consisting of indigenous and alien fish stocks in small and large storage dams as influenced by the quantity and quality of water; access to these resources through various types of property rights that determine the relations of people to resources; and relevant legislation with regulations through which control is exercised over resources and people. This in turn will be influenced by organisation for management based on peoples' knowledge (indigenous, local and scientific), and type of fishing (recreation, subsistence or commercial) within a sustainable livelihoods framework. All of the above will need to be buttressed by just, participatory, transparent, accountable and effective governance. The framework (Fig. 1) was developed in the early stages of this WRC-funded research project and later presented during a consultative workshop (Backeberg, 2012). The purpose was to emphasize the

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Received 1 May 2013; accepted in revised form 3 March 2014.