

7.3 Artisanal and Subsistence Fishing

A generally accepted definition of artisanal fisheries is that they usually have a long history and tradition or culture; mostly make use of low technology fishing gear (often made by hand); and catch fairly low value resources.

Also sometimes known as “small-scale” fisheries, artisanal fisheries are usually commercially driven and involve individual fishers who primarily fish for profit, despite often originating as subsistence activities. Subsistence fisheries, on the other hand,

refer to those fisheries where poor, unemployed people harvest fish or other marine organisms in close proximity to where they live, as a means to meet their basic needs for food security.¹

By comparison to other areas on both the East and West African coasts, the KZN coast has relatively small artisanal and subsistence fisheries. There are two main reasons for this. The first is due to the high-energy nature of the KZN coastline and the lack of sheltered bays and inlets. This made the

development of artisanal fisheries using low technology fishing gear and vessels such as canoes and/or dhows difficult. The second is because the people who migrated into the region from the north and inland were traditionally cattle herders. It is reported that they historically did not eat fish, regarding it as “white meat” and the “meat of a snake”.² As a result, the Zulu people did not develop active fisheries along the coast, and even today, there are very few isiZulu names for marine fish species.

The Khoisan people (colloquially referred to as “strandlopers”), on the other hand, lived along the entire South African coast and made extensive use of marine invertebrate and fish species.³ These people preceded the arrival of the Nguni people from the north and the middens of shells and fish bones they left behind are still evident in many places along the KZN coast (Section 7.1).⁴

Another exception was the Thonga people, who lived in the coastal areas of northern Zululand (Maputaland) and southern Mozambique. These coastal people had a long tradition and culture of fish trapping and spearing, and a good example of this artisanal fishing practice still exists in Kosi Bay.



Photo: Bernadine Everett

Subsistence fisher harvesting mussels.

The British, who arrived in KZN in the 18th Century (*Section 7.1*), brought with them fishing skills but these were more of a commercial and/or recreational nature (e.g. trawling and line-fishing). When they brought in labour from the East, the practice of beach-seine netting was brought to Durban Bay and a community of Indian seine-net fishermen and their families lived on Salisbury Island in the Bay for many years.⁵ Two of the three beach seine net licences still in use today in the Durban area belong to the last remaining family members of this group, to whom this tradition has been passed down.

At Kosi Bay there is also a recent, but locally important, artisanal fishery in which local people pump sand prawns to sell as bait to recreational anglers. The fishery's impact has been investigated and was found to be of a sustainable nature and so it was added to KZN's list of fisheries to be recognised and formally managed.

The Kosi Bay fish traps and sand prawns and the Durban beach seine fishery are therefore perhaps the only true examples of traditional and/or artisanal fisheries still in existence in KZN. Some may argue that the illegal gill-net fisheries present in a number of the larger KZN estuaries such as Kosi Bay, St Lucia and Richards Bay could also be considered as artisanal fisheries.^{6,7} This practice was only introduced during the late 1960s; and, after two unsuccessful attempts to legalise these fisheries, has remained illegal.^{8,9}

With rapid population growth and the increase in unemployment in KZN, subsistence invertebrate harvesting and line-fishing along the coast has inevitably increased. It was estimated in 2002 that there were approximately 21 641 households along the KZN coast involved in subsistence fishing.¹⁰ It is believed, however, that this was a substantial overestimate as roving creel surveys conducted along the entire coast during 1994-1996¹¹ and again in 2009-2010,¹² showed that "true" subsistence line-fishers made up a relatively small percentage (3-6%) of the total number of shore fishers.¹²

Management of subsistence and artisanal fisheries

The *Marine Living Resources Act* made provision for the recognition and management of the subsistence fishing sector. Prior to the promulgation of this Act, most subsistence and artisanal fishing was considered illegal, although in areas such as Kosi Bay they were often benignly ignored. In 2000, following some success with pilot projects at Kosi Bay and Sokhulu, Ezemvelo KZN Wildlife rolled out a co-management

programme for the management of subsistence fisheries along the entire KZN coast. In KZN there are more than 23 communities presently involved in subsistence and artisanal fishing, with approximately 2 500 people from these communities participating in five types of fisheries. In order of importance (in terms of overall catch) these include:

1. estuarine fish traps (Kosi Bay);
2. marine and estuarine rod and line fishing (shore fishing);
3. marine rocky and sandy shore invertebrate harvesting (mainly brown mussels);
4. estuarine sand and mud prawn harvesting (bait harvesting); and
5. traditional spear fishing (handheld spears used only in Kosi Bay).

In terms of the annual amount of food harvested, in 2010 the Kosi Bay fish trap fishery harvested 75 176 kg; the marine subsistence rod and line fishery harvested 57 401 kg; the estuarine subsistence rod and line fishery harvested 6 072 kg; and the subsistence marine invertebrate fishery harvested 12 677 kg in 2009.^{13;14}

Formal operational management plans developed for the subsistence and artisanal fisheries, and endorsed by the Department of Agriculture, Forestry and Fisheries (DAFF), guide management of the individual fisheries, and try to ensure sustainability and management in accordance with the principles of co-management. A provincial Ezemvelo KZN Wildlife Subsistence Fisheries Implementation Unit (SFIU) is mandated by DAFF to facilitate the management of subsistence fisheries in KZN. The Unit has successfully established co-management agreements with ten communities. Agreements define the rights and responsibilities of each party in the co-management partnership. Crucial to the community is the right to nominate community members who meet specific criteria to participate in the fishery and receive exemption permits. Agreements have yet to be concluded with 12 subsistence fishing communities in the Maputaland region. These fisheries remain largely informal or illegal, despite numerous interventions over the years. In 2012, significant resources were allocated to correct the situation and progress has been made.

With the exception of much of the Maputaland shore, all formal subsistence fishing is confined to specific harvesting zones along the coast. South of Maputaland the intertidal invertebrate fishery is controlled primarily through a quota system, determined by an annual *in situ* stock assessment.



Photo: Bernadine Everett



Photo: Bernadine Everett



Photo: Bernadine Everett



Left to right: Subsistence line fisher; subsistence collectors sorting harvested mussels and red bait; subsistence fisher cleaning fish.

The subsistence rod and line fishery controls are aligned to national recreational fishery regulations, except that fishers are permitted to harvest increased, but specified, quantities of certain baitfish species (e.g. pinkies, karanteen, etc.). Subsistence line fishers are also allowed to sell certain specified fish species, but strict conditions apply to these sales.

A comprehensive monitoring programme, presently funded by DAFF and the Working for Fisheries Programme has been implemented. A total of 67 catch data monitors are employed to collect catch, effort and stock status data, and 30 fisheries awareness monitors are employed in the Kosi Bay area to assist with fishing compliance and awareness.

Management challenges

Despite the progress made with the recognition and formalisation of subsistence and artisanal fisheries in KZN, challenges to contemporary management of these fisheries are considerable. For example, one of the important challenges identified in recent years was the lack of recognition of artisanal or “small-scale” fishers in current legislation. This resulted in the development of the *Small-scale Fisheries Policy*, gazetted in June 2012 (*Government Gazette No. 29391*). The new policy seeks significant changes to the management of small-scale fisheries in South Africa, and the principles of preferential access and a multiple-species approach may have an impact on subsistence fisheries management in KZN. In addition, subsistence and artisanal fishers in Maptaland operate with few or no controls and recent research strongly suggests that current harvesting

pressures may be contributing to a decline in targeted resources. A critical process required in this region is to identify legitimate fishers and to cap fishing effort at, or reduce it to, appropriate and sustainable levels. Recognised fishers need to have legal access to resources and, where possible, to participate in the co-management of these resources to ensure their wise and sustainable use.

As the population of KZN continues to grow (Section 6.1), additional employment opportunities may not materialise and the demand for marine resources, especially in poor rural communities, will increase. Already, within the recognised formal fishing communities, fishers and harvesters have expressed dissatisfaction with the controls that have been implemented, particularly the restriction on selling their catch, as they view these as unnecessary barriers to accessing food and money. Within informal fishing areas, the commercialization and modernisation of fishing gear is occurring. Unfortunately, most inshore fisheries in KZN cannot sustain commercial harvesting pressure, which would ultimately lead to the collapse of the fishery. ■

Copyright:
This publication may be reproduced in whole or in part for educational or non-profit purposes without special permission from the copyright holder, provided that acknowledgement of the source is made. No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior written permission from the KwaZulu-Natal Department of Agriculture and Environmental Affairs and the Oceanographic Research Institute.