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Assessing the contribution of Interim Relief Measures to food security and income of small-scale fishers of Ocean View, Western Cape.

By

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ABSTRACT

The overall aim of this study is to understand the contribution made by small-scale fisheries to food security and income of fisher households. The study also investigated the characteristics of Ocean View small-scale fishers and their dependence to marine resources for food and livelihood. The study further examined the international and regional instruments as well as domestic legislations managing small-scale fisheries and promoting food security and fishers' participation in management and decision-making. The study focused only on interim relief permit holders from Ocean View.

Data were collected by means of literature review of research papers, government documents and reports as well as articles in the press. Group discussions and semi-structured interviews were held with Ocean View interim relief permit holders to assess fish consumption patterns, income earned from fishing, fishing nature, participation in management and decision-making to document fisher perceptions on management of resources they harvest. Informal discussions were also held with key informants from the community.

The Minister of Environmental Affairs and Tourism introduced interim relief measures in 2007 and consequently 2008 for traditional small-scale fishers who hold no fishing rights to harvest marine resources for household consumption as well as to sell their catch. Based on the study findings, IRMs contributed significantly to fisher household food and livelihood needs particularly, during the period when fishers were harvesting both West Coast Rock Lobster and line fish species of snoek and hottentot. The consumption of fish increased significantly in fisher households as fish was the most consumed meat protein in the households. The study also showed that households with limited sources of income were selling a large proportion of their line fish catch compared to better-off households. Although there was a positive contribution by IRMs, there is a concern about the sustainability of the harvested resources during inconsistent monitoring and enforcement by officials.

Furthermore, the study showed that management decisions on marine resources in South Africa are still centralised and rely mostly on scientific inputs as the rights and livelihood needs of small-scale fishers are seldom considered in decision-making. The study further indicated that participation of fishers in management and decision-making is lacking due to little interest shown by government officials.

In conclusion, this study highlights the need to adopt an integrated and inclusive approach to small-scale fisheries management and ensuring that livelihood needs of small-scale fishers are taken into consideration to enhance and sustain their food and livelihoods.

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ABBREVIATIONS AND ACRONYMS

SSF	Small-scale Fisheries
FAO	United Nations Food and Agriculture Organization
EEZ	Exclusive Economic Zone
TAC	Total Allowable Catch
MPA	Marine Protected Area
MDGs	Millennium Development Goals
SADC	Southern Africa Development Community
NGO	Non-Governmental Organisation
WFC	World Fish Centre
ANC	African National Congress
RDP	Reconstruction and Development Programme
GEAR	Growth, Employment and Redistribution macroeconomic framework
MLRA	Marine Living Resource Act
MCM	Marine and Coastal Management
SFTG	Subsistence Fishers Task Group
DEAT	Department of Environmental Affairs and Tourism
WCRL	West Coast Rock Lobster
IRMs	Interim Relief Measures
AFA	Artisanal Fishers Association
CCT	City of Cape Town
SAPS	South African Police Service
PUFS	Program in Urban Food Security
UNESCO	The United Nations Educational Scientific and Cultural Organization
UNCLOS	The United Nations Convention on the Law of the Sea
RDWFS	The 1996 Rome Declaration on World Food Security
IFSP	Integrated Food Security Programme
NEMA	National Environmental Management Act

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CHAPTER 1

1.1 Introduction and rationale for the study

According to the United Nations Food and Agriculture Organisation's (FAO) 2003 report on food security, approximately 800 million people in the developing world are food insecure and a quarter of them reside in sub-Saharan Africa (FAO 2003, Cunningham 2005). This number is expected to decline to about 700 million by 2012 as countries increase production to address food insecurity (FAO 2003). However, (Hishamunda and Ridler 2006) argued that the decline would not be observed in sub-Saharan Africa, as their baseline projection suggests that sub-Saharan Africa will have a 27% increase in food insecurity rather than a decrease.

Therefore, the need to increase food security and reduce poverty in developing countries is regarded as a priority above all other priorities by the FAO. Small-scale Fisheries (SSFs) have been identified as one of the sectors that could enhance food security and reduce poverty, particularly in third world countries (Berkes *et al.* 2001, Béné 2006, 2008, Charles 2002, 2006, FAO 1995, 2005, Lunn *et al.* 2006). The SSFs sector, regardless of any technical debate over its precise definition that may include artisanal, subsistence, informal and traditional or small-scale fishers, contributes significantly to the food and nutritional security of many people (Staples *et al.* 2004, FAO 2005, Béné *et al.*, 2009). Approximately 1 billion people rely on fish as an important source of animal protein, particularly in areas where other sources of animal protein are scarce or expensive (Berkes *et al.* 2001, Béné 2006, 2008, Charles 2002, 2006, Lunn *et al.* 2006). More than a half of this population depend on the portion coming from SSFs (Staples *et al.* 2004, FAO 2005).

The special role of SSFs in addressing food security was first explored at the International Conference on the Sustainable Contribution of Fisheries to Food Security, which was organised by the government of Japan in collaboration with the FAO and held in Kyoto in December 1995 (FAO 1996). More recently, in 2003 at the 25th session of the FAO Committee on Fisheries, SSFs were identified as one of the priority sectors in the fight against hunger, poverty and ensuring food security among developing countries (Singh *et al.* 2005, FAO 2005). The 2005 Millennium Development Goals (MDGs) state that even though SSFs do not hold "*all the answers to the vexed questions about achieving the MDGs in Africa, they do offer a key entry point to reach millions of poor people on the continent and to assist them to increase their income, improve the nutrition and health of their families, and become active agents of economic development and social change*" (MDGs 2005 p2).

SSFs also provide income for millions of people, mostly small-scale fishers and entrepreneurs, engaged in fish production, processing and trade (FAO 2005, 2006, World Fish Centre 2007, Béné *et al.* 2009). Charles (2002, 2006), Berkes 2003 and Béné (2006) indicated that SSFs provide livelihoods to millions of coastal and inland dwellers, particularly in rural areas where the bulk of the poor live. In addition, the SSFs sector is regarded as a pro-poor activity because it is labour-intensive and relatively easy to enter for unskilled people, hence providing livelihoods to a large number of people.

Over the past decade, various authors have stressed the importance of SSFs to many impoverished communities because the sector has the ability to provide direct and affordable fish products to poorer population groups, by comparison with industrialised fisheries (Berkes *et al.* 2001, Béné 2006, 2008, Charles 2002, 2006, Cardoso *et al.* 2006). Furthermore, the management systems relevant to this sector must recognise the importance of SSFs to fisher livelihoods and give preferential treatment to these fishers in terms of rights allocation and access to resources. These ideas are also highlighted in a number of key international instruments amongst others, the 1995 FAO Code on Responsible Fisheries, the Millennium Development Goals of 2005 and the Southern Africa Development Community (SADC) Protocol on Fisheries of 2003. Furthermore, the need to provide equitable access to marine resources for traditional small-scale fishers has been highlighted by the United Nations Special Report on the Right to Food of 2000 as well as many non-governmental organisations (NGOs) such as the International Collective for Fish and Fish Workers in South Africa by Masifundise¹ (Isaacs, 2006, 2008, Sowman 2006, Masifundise 2007).

However, despite the important role of SSFs in contributing to food security and livelihoods of fishers and the plethora of progressive environmental and human rights laws in most countries to protect poor and vulnerable fishers, the sector continues to attract minimal attention from both current conventional fisheries management agencies and the research community (Charles 2002, 2006, Berkes 2003, Staples *et al.* 2004, Béné 2006, 2008, Singh 2005, Harris *et al.* 2006, Sowman 2006, Cardoso *et al.* 2007, Béné *et al.* 2009). This is evident in most fisheries management policies, which are focused on promoting large-scale industrialised fisheries interests (Berkes *et al.* 2001, Berkes 2003, Staples *et al.* 2004, Sowman 2006, Schumann *et al.* 2007, Brady *et al.* 2008). The ignorance of the value of SSFs

¹ Masifundise an NGO located in Cape Town, began working with artisanal fishers in 2001 to focus on the plight of the fishing communities on the west coast.

is also partially due to a lack of clear definition as well as appropriate policies and management systems (Béné 2006, Charles 2006). This means that small-scale fishers are often faced with precarious, vulnerable living and working conditions, insecure rights to land and fishery resources, inadequate or limited health and educational services and social safety nets, and exclusion from wider development processes (Kent 1997, Charles 2002, 2006, Cullinan *et al.* 2005, Sowman 2006, Béné 2006, 2008, World Fish Centre 2007). In addition, in most countries small-scale fishers are not represented on organizational structures and have limited participation in decision-making that affect the sector.

In South Africa, prior to 1994, SSFs were not recognised by the legal frameworks governing fisheries management (Hersoug and Holm 2000, van Sittert 2002, Isaacs *et al.* 2005, Witbooi 2006). In particular, the previous fisheries regime excluded opportunities for black and coloured² small-scale fishers to participate in the fishery (Isaacs *et al.* 2005, Witbooi 2006). The authorities did not consider them as they operated under the regulations governing recreational fishers (Branch *et al.* 2002, van Sittert 2002, Hauck 2008). After 1994, the African National Congress (ANC) introduced the Reconstruction and Development Programme (RDP) policy framework, which included a vision on improving the lives of impoverished fishing communities (ANC 1994). The framework raised expectations that many destitute fishers in these marginalised fishing communities would secure their own fishing rights and improve their standard of living (Hauck *et al.* 2002, Isaacs 2006, 2008, Sowman 2006). However, the RDP framework was replaced by the Growth, Employment and Redistribution (GEAR) macroeconomic framework for South Africa in 1996 and many of the RDP principles and ideas were overlooked. It focused primarily on privatisation and promoting business growth and expansion whilst paying little attention to the initial discourse of addressing inequalities and past imbalances. These objectives applied equally to the fishing industry (van Sittert *et al.* 2006).

The government published a new Fishing Policy in 1998, which was introduced to address past inequalities in the fishing sector (Hersoug and Holm 2000, van Sittert *et al.* 2006,

² Contrary to international usage, in South Africa the term “Coloured” does not refer to black people in general. It instead alludes to a diverse group of people descended largely from slaves, indigenous Khoisan peoples and other black people who had been assimilated to colonial society by the late 19th century. Being also partly descended from European settlers, Coloureds are popularly regarded as being of “mixed race” and occupy an indeterminate status in the South African racial hierarchy, distinct from the historically dominant white minority and the numerically predominant African population. “Black” is a generic term in South Africa for those ethnic groups identified by apartheid policy as “Indian”, “African” or “Coloured” (Isaacs 2006).

Witbooi 2006). It recognised the need to address past injustices and to cater for subsistence fishers³ whilst ensuring sustainability of marine resources. The Fishing Policy was drafted into law in 1998 and promulgated as the Marine Living Resource Act (MLRA) 18 of 1998 and it recognised subsistence fishers as a definite category of fishers. Many fishers believed that the new MLRA would deliver on their expectations, while at the same time maintaining an internationally competitive fishing industry (van Sittert 2002, van Sittert *et al.* 2006, Isaacs 2006). In order to ensure appropriate management of this new subsistence sector, the government through Marine and Coastal Management (MCM), appointed a Subsistence Fishers Task Group (SFTG) in 1999 to provide advice and management recommendations on how to manage subsistence fisheries in South Africa (Harris *et al.* 2002, Clark *et al.* 2002, Isaacs 2003, Sowman 2006).

However, the policies and legislation implemented by the Department of Environmental Affairs and Tourism (DEAT) to manage the allocation of fisheries resources has left the majority of traditional fishers without fundamental rights to access marine and coastal resources for food security and livelihoods (Masifundise 2007, 2008). However, through legal action by a group of traditional fishers, the Minister of Environmental Affairs and Tourism was ordered by the Equality Court in May 2007, to issue interim relief fishing permits to traditional small-scale fishers while a comprehensive fishing policy for this sector is developed (Mafundise 2007, Sunde and Isaacs 2008). The ruling further states that the Minister should be ready to gazette a new small-scale fisheries policy by 30 June 2009. In addition, this policy should be developed in consultation with fisher community representatives. The measures were intended to assist impoverished coastal communities to gain access to resources while the policy was being finalized. In the case of the Western Cape, resources such as west coast rock lobster (WCRL) (*Jasus lalandii*), white mussels (*Donax serra*), snoek (*Thyrsites atun*), hottentot (*Pachymetopon blochii*) and yellowtail (*Seriola lalandi*) were included in the resources identified for interim relief and fishers could sell their catches to earn an income and sustain their livelihoods. Fishers in Ocean View in the Western Cape, a coastal community with a long history of fishing, were among the beneficiaries of these permits (see Figure 1.1).

³ According to the MLRA, a subsistence fisher is “a natural person who regularly catches fish for personal consumption or for the consumption of his or her dependents, including one who engages from time to time in the local sale or barter of excess catch, but does not include a person who engages on a substantial scale in the sale of fish on a commercial basis”.

The extent to which SSFs contribute to food security and income in communities such as Ocean View is the focus of this study. Based on the review of the literature both in South Africa and internationally, considerable confusion and oversimplifications exist about how to define and measure the importance and contribution of SSFs, to food security, income generation and poverty alleviation among small-scale fishers. This lack of clarity thus affects our ability to evaluate the real contributions of SSFs to food security and income of fishers and their households, which could lead to inappropriate decisions regarding the type of interventions or policies required to support SSFs. Furthermore, there is a limited empirical research in South Africa on household food security particularly in small-scale fisher households (Masifundise 2007). According to Hendricks (2005), there is a shortage of comparative studies and time-series data sets thus hindering accurate estimation of food security trends in South Africa. Therefore, there is a need to enhance our knowledge about the extent to which SSFs are contributing to fisher household food security and income. In addition, information is required to improve our understanding of the various mechanisms through which small-scale fishers do participate in addressing food security and increasing income, and general socioeconomic advancement of their households. Hence, this study is concerned with the contribution of interim relief measures (IRMs) to food security and income of fisher households in Ocean View, Cape Town. It purposively focused on the fishers that have received IRMs permits because these fishers were given access to harvest resources, are categorised as small-scale fishers, harvest resources for household food consumption and is permitted to sell a portion of their catch to generate an income.

1.2 Aims and Objectives

The general aim of this study is to improve the understanding of the contribution of SSFs to food security and income of fisher households in Ocean View. The study therefore assesses the level of dependence of small-scale fisher households on fishing and the importance of accessing marine resources for their livelihoods. The study focuses specifically on fishers that have benefitted from the IRMs dispensation and identifies and assesses the contributions made by the introduction of interim relief measures to fisher household food security and income.

The objectives of the study were thus as follows:

1. To provide an overview of the characteristics of SSFs and their contribution to food security and livelihoods;
2. To review international and regional instruments relevant to small-scale fisheries and food security, and assess how these principles and provisions are reflected in national legislation relevant to managing SSFs in South Africa;
3. To assess the contribution and value of interim relief fishing permits in relation to fisher household food security and income in Ocean View.
4. To ascertain fisher perceptions of IRMs and marine resource management in South Africa;
5. To discuss the implications of IRMs in terms of management and policy development.

1.3 Description of the study area

1.3.1 Location and history of Ocean View

Ocean View is a traditional fishing community located on the southern Cape Peninsula, South Africa (see Figure 1.1). The Ocean View township was formed in the late 1960's to 1970's to accommodate the majority of coloured people that were re-located after being forcefully removed from the prescribed white⁴ suburbs of Simon's town, Fish Hoek and Noordhoek (Isaacs 2003). It was ironically named Ocean View, with residents removed from their previous homes of which many had sea views (Artisanal Fishers Association (AFA) 2009)⁵. Their removal made them lose immediate access to the sea and their primary source of livelihood, which was fishing (Isaacs 2003).



Figure 1.1 Map showing the location of the study site, Ocean View. Source: Joubert et al. 2006.

Ocean View fishers have a long history of dependence on marine resources, harvesting mainly Abalone, WCRL and line fish species (SFTG 2000). They have been targeting mostly

⁴ A white person in South Africa refers to people who are of Afrikaner, British or other continental European descent.

⁵ AFA is a non-profit organisation formed by artisanal fishers in South Africa to represent their interests and fight for fisher rights to harvest marine resources.

WCRL and line fish species such as snoek, hottentot, yellowtail, silverback, roman, blacktail and geelbek among other species for their household consumption but they are also involved in small scale trading (SFTG 2000, Branch *et al.* 2002, Isaacs 2003). These fishers operate with simple and low technology gears including handlines, prawn-pumps, rods and reels, hoopnets/ring nets for WCRL and simply feet and hands in the case of mussel harvesting (SFTG 2000, Branch *et al.* 2002, Clack *et al.* 2002, Masifundise 2007). These have historically fished for both household consumption and income (Branch *et al.* 2002).

1.3.2 Socio-economic characteristics

According to the City of Cape Town's (CCT) 2001 census, there are 16 161 people living in Ocean View (CCT 2001). More than 97% of the population is made up of 'coloured' people with other ethnic groups contributing less than 3% (see Table 1.1). The main language spoken within the township is Afrikaans, but most community members also speak English. It is further reported that women make up 52% of the population, whilst 48% are men. The findings from Program in Urban Food Security (PUFS) survey in 2008 indicated that the average household size was four members per household with the average age of 51 for the household heads (PUFS 2008). In 2001, it was estimated that of the economically active population, 21% was unemployed (CCT 2001). However, this number could be currently higher considering the closure of the abalone fishery in 2007, which affected some community members who were dependant on abalone as a source of income (AFA 2008). More than 85% of Ocean View have an estimated household income of between R1000-R76 800 per annum earned from various activities ranging from professional jobs to small-scale fishing (CCT 2001). The PUFS (2008) data showed that the mean average household income in Ocean View was R 4 477.68 per month thus equating into R57 732.16 per annum.

In terms of infrastructural development, there are three schools and a centre for physically and educationally challenged people. The settlement also has a large multi-purpose centre, sports and other civic facilities including a library, community centre and clinic. The community is also well served by taxi and bus facilities during working hours. The South African Police Service (SAPS) also has a police station in the area. The housing status in Ocean View is relatively satisfactory considering that the majority of houses are constructed from bricks. While many inhabitants live in houses, about 22% of the population live in blocks of flats with the remaining population of about 10% living in informal dwellings (CCT 2001). About 86% of the houses have access to piped water while other inhabitants use

community water points. With respect to sanitation, 95% of households have flush toilets connected to the sewage system and waste removal services are provided to all inhabitants both in formal and informal dwellings (CCT 2001).

Table 1.1 Demographic profiles by gender in Ocean View. Source: City of Cape Town 2001 census.

Ethnic group	Male	%	Female	%	Total	%
Black African	142	0.88	154	0.95	296	1.83
Coloured	7,564	46.80	8,232	50.94	15,796	97.74
Indian/Asian	18	0.11	21	0.13	39	0.24
White	18	0.11	12	0.07	30	0.19
Total	7,742	47.91	8,419	52.09	16,161	100.00

A recent report by Masifundise (2007) states that Ocean View is one of several coastal communities on the West Coast that are facing increasing impoverishment due to a lack of small-scale commercial fishing rights. The majority of traditional fishers in this community do not hold commercial rights as they use recreational permits to fish and sell a portion of their catch (Isaacs 2008). This is illegal under the recreational permit conditions but most fishers claim that they have no other alternatives. However, 62 fishers were allocated IRMs in Ocean View (DEAT 2008) for the 2008/2009 fishing season. This allowed fishers to harvest WCRL, snoek, yellowtail, hottentot and white mussels. When this study was conducted between May and June 2009, there were less than 30 fishers actively engaged in fishing for line species after the WCRL fishing season ended in April 2009. Other permit holders did not actively utilise their fishing permits for line fish. Therefore, fieldwork entailed semi-structured interviews with 20 IRMs permit holders, a focus group meeting with fishers and key informants, and two informal discussions with key informants in Ocean View.

1.4 Methodology

Introduction

This section presents the methodology employed in this study, and describes the different methods applied during the field investigation to collect qualitative and quantitative data as well as the analysis procedures used. The research is largely a qualitative study and the primary data were obtained from interviews with small-scale fishers from the Ocean View community in the Western Cape, South Africa. The chapter outlines the rationale for the methods used in this study and then describes the methods used for field investigation and data analysis as well as the constraints faced and strategies adopted during the field investigation. A qualitative research approach was chosen because it is effective in obtaining culturally specific information about the values, opinions, behaviours, and social contexts of particular populations, which was the objective of this study. Qualitative methods are effective in identifying intangible factors, such as social norms, socio-economic status, gender roles and human experiences whose role in the research issue may not be readily apparent (Talja 1999, Mottier 2005).

1.4.1 Sampling

The Ocean View Community was purposively sampled for various reasons. Firstly, in 2008, the PUFS research team from the University of Cape Town carried out a general urban food security baseline household survey in the area. This presented an interesting study opportunity for the researcher to assess the contributions of SSFs to household food security and income in the area, particularly those that received access to resources in the form of interim relief permits. In addition, this recent research created a communication link between the researcher and the community.

It needs to be noted that arranging interview appointments with fishers was not possible because respondents indicated to the researcher during the initial meeting that they could not confirm interview dates and times as their fishing days are determined by weather and sea conditions. They also pointed out that since they only had until 30 June 2009 to harvest line fish allocations they would be fishing on any good fishing day. Therefore, the sample size was not fixed prior to data collection. The researcher has therefore taken into consideration Topp *et al.* (2003), Whitehead (2004) arguments, that in purposive sampling sample sizes may not be fixed prior to data collection, depending on the resources (including the subject) and time available, as well as the study's objectives. Based on these reasons, the study sample

size was determined based on theoretical saturation. This refers to the point reached in data collection when new data no longer brings additional insights to the research questions (Whitehead 2004). However, they stressed that purposive sampling is therefore most successful when data review and analysis are done in conjunction with data collection. Hence, the researcher has analysed interview data collected at the end of each day to study the patterns of data collected.

1.4.3 Data Collection

1.4.3.1 Semi-structured interviews with fishers

According to Annabel (2006), data from interviews are not objective as in quantitative research hence a good interview must explore the subjective knowledge, opinions and beliefs of an individual. Semi-structured interviews were used because according to Annabel (2006), they are optimal for collecting data on individual personal histories, perspectives, and experiences, particularly when sensitive topics are being explored. In addition, interviews do present an opportunity for probing. This gave the researcher the opportunity to respond immediately to what participants said by tailoring subsequent questions to information the participant had provided. In addition, interviews were considered appropriate for this study given the fact that most respondents have difficulties with the written language. However, other methods are not necessarily, inappropriate for the study. A group discussion was held to supplement data gathered from the interviews.

Interviews were conducted with the fishers to gain an understanding of the importance of SSFs to their household food security and income generation. The issue of access rights in SSFs is a very sensitive issue in South Africa therefore it was considered vital to use interviews to provide fishers with an opportunity to respond in their own words, rather than simply providing a “yes” or “no”⁶ response typical of many questionnaire surveys. Respondents were identified by using a snowball sampling approach (Miles and Huberman 1998). They explained that participants or informants, with whom contacts had already been made, could make use of their social networks to refer the researcher to other people who could potentially participate in or contribute to the study. This method was chosen because many permit holders live in informal settlements of Ocean View and most of them had no contact addresses to arrange for interviews in advance. It should be noted that even though

⁶ Yes or no answers do not provide participants with an opportunity to elaborate on their answers.

the list of beneficiaries was provided, contact and residential addresses were not provided. To validate that the respondents were interim relief permit holders, they were asked to provide their permits before an interview was carried out.

Interviews were planned to take approximately 30 minutes but they lasted for as long as respondents remained interested, usually between 20 and 45 minutes. The same interview questions were used but additional questions were generated during the interviews depending on the responses. Respondent's answers were written down and transcribed into a computer file at the end of each day. A signed consent form was obtained from each respondent before the start of each interview (see Appendix A). Fishers were asked about their historical background in fisheries (e.g. years in fishing, fishing effort, target species etc), fish as a food source (e.g. percentage of fish consumed, intake of fish products) income generated from fishing (income from fishing, use of income from fishing) and specific questions on interim relief measures as well as their perceptions on various management issues.

1.4.3.2 Group discussion

Goss (1996, p113) in Cloke *et al.* (2004) defined discussion groups as “*a confusion of the focused interview, in which an interviewer keeps a respondent on topic without the use of a structured questionnaire...a carefully selected group of people discuss a series of particular questions raised by the moderator*”. The intention of the discussion is to stimulate participants to pursue new lines of thought and observation, thus making it possible to elicit more than the sum of the opinions of the individuals that might have been elicited by interviewing them separately (Misselhorn 2006). Thomas *et al.* (1999) reported that the type of data generated through social interactions of participants such as at group discussion meetings, are deeper and richer than those obtained from one to one interviews. In addition, Barbour and Kitzinger (1998) pointed out that group discussions are particularly relevant to studies that focus on attitudes and experiences around specific issues. Furthermore, group discussions are preferred because of their ability to generate large amounts of data in a relatively short time, they are quick and cheap to organise and participants can build on other's responses and come up with more ideas. For this study, only one group discussion was conducted because of the homogeneity of participants in that they were all interim relief permit holders and because of the time limit of the study. The discussion also provided the researcher with an opportunity to introduce the purpose of the study to the fishers and to

obtain a general understanding of SSFs in Ocean View and set the scene for individual interviews.

1.4.3.3 Informal discussions with key informants

The researcher also conducted two informal discussions with key informants in the area. Key informant interviews were conducted to better understand individual observations about changes in access to and control of resources, as well as perceptions about changes with regard to the importance of resources to Ocean View traditional fisher livelihoods. According to Fetterman (1998), key informants are people actively involved in the community who are able to offer valuable insights into community life.

1.4.3.4 Secondary Data

The secondary sources of data for this study were obtained from a review of books, journal articles, government documents (policies and internal documents relevant to SSFs and IRMs), reports and press articles. The study has made use of wide range of recent articles written by prominent authors in the field of small-scale fisheries and food security. The materials helped provide an in-depth understanding of SSFs in general and the role they play in addressing food security and contributions to fisher household income.

1.4.4 Data Analysis

A thematic analysis was utilized in this study in order to reveal major themes arising from the qualitative data derived from the interviews, group discussion and key informants. Huberman and Miles (1998) define thematic analysis as an approach that deals with data that involves the creation and application of codes to data. The data being analyzed might be in the form of an interview transcript or field notes. Arnason (2000) added that thematic analysis focuses on identifiable themes and patterns of living and/or behaviour.

Thematic analysis in this study was done by grouping different responses of the interview and discussion group questions to elicit the dominant themes. Data were analysed at the end of each interview day to study the emerging themes. This was done out in order to identify all data that relate to the already classified patterns. These themes were then cross-referenced to the literature that provided guidance for understanding food security in fisher households. The next step was to build a valid argument for choosing particular themes, which was done by referring to relevant literature and objectives of the study. Aronson (1994) argues that by

referring back to the literature, the interviewer gains information that allows him or herself to make inferences from the interviews. Key informant interviews were also used to complement information gathered from interviews and group discussion.

Quantitative data gathered from the fieldwork were entered into an excel spreadsheet and analysed for information such as total income earned from catch sales. The data was transformed into tables and graphs to study and present the data in a more systematic and structured way.

1.4.5 Ethical Consideration

Agar (1996) points out that the foundations for research in small-scale fishing communities needs to be carried out with caution given the sensitivity of dealing with human experiences and resource utilisation especially amongst non-rights holders. He suggested that such studies should be carried out with the following terms in mind- *transparency, confidentiality and voluntary consent* (Agar 1996, p16). The issues of access rights, food security and income in SSFs are sensitive, particularly in South Africa and specifically with interim permit holders who have failed to acquire fishing rights. Therefore, it was vital for the researcher to practise caution in terms of accessing information and be sensitive to the fact that the researcher was from outside the community. Isaacs (2003) asserted that it is important to explicitly state to fishers what the purpose of the research is, confirm that the researcher had no relationship with the authorities nor could he/she provide fishing rights or explain why fishers had failed in their applications to secure fishing rights. The response to the researcher was very positive in that the fishers did not expect anything from the researcher, and were eager to share their experiences and give their opinions about their involvement in the SSFs sector.

1.4.6 Limitations

This study was conducted in a specific coastal community, therefore the results cannot be generalised to all communities who have fishers fishing under the interim relief permit. The allocated time of six months to undertake the research also limited the scope of the study. Furthermore, interviews were specifically limited to Interim Relief permit holders in Ocean View because the study was specifically focused on assessing the impacts of introducing interim relief measures on small-scale fishers who had no legal fishing rights. A translator was appointed to translate and facilitate during interviews because most fishers were

comfortable communicating in Afrikaans. Thus certain information may have been lost during the translation process.

1.5 Outline of the thesis

The outline of the thesis is as follows; Chapter 1 provides the background and rationale for the study as well as the objectives. It also discusses the methods used in the study and the description of the study area. Chapter 2 discusses the literature review on the nature of SSFs, the concept of food security in SSFs and income from fishing. Chapter 3 discusses relevant international and regional instruments guiding the management of SSFs and promoting food security and livelihoods of small-scale fishers. It further investigates the national legal frameworks on SSFs and food security and to what extent international instruments have been incorporated in the national legislation. Chapter 4 presents the findings of fieldwork. Chapter 5 discusses the findings of the study in relation to the literature review and the international and regional instruments that South Africa has committed to as well as the domestic legal frameworks governing marine resource management. Chapter 6 presents the conclusions of this study.

CHAPTER 2: UNDERSTANDING SMALL-SCALE FISHERIES AND THEIR CONTRIBUTION TO FOOD SECURITY AND INCOME

Introduction

The chapter reviews academic literature on SSFs and their contribution to food security and income of fisher households. The chapter begins by defining characteristics of SSFs, dependence of small-scale fishers on marine resources, fisher household characteristics and fishing activities. It will then discuss household fish and other marine resources consumption, contributions to food security and fishing as a source of income. The chapter will conclude by investigating small-scale fisher's participation in resource management and its importance in ensuring access to food security and income sources in South Africa.

2.1 Characteristics of small-scale fisheries

2.1.1 Defining small-scale fisheries

There are over 40 definitions used worldwide to define SSFs (Berkes *et al.* 2001, Staples *et al.* 2004, Béné *et al.* 2006, McConney and Charles 2008). These various terms are frequently used interchangeably to refer to the following adjectives: subsistence, traditional, native, artisanal or small-scale fishers (McGoodwin 1995, Charles 2002, 2006, Staples *et al.* 2004, Sowman 2006, Béné 2005, 2008, Idda 2009). SSFs take on a great number of forms and modes of operation in terms fishing equipment, effort, marketing of catches and they are made up of different cultures in countries where they are found (Staples *et al.* 2004). Although the FAO does have a broad definition of SSFs it stressed that it would be inappropriate to formulate a universally applicable definition for a sector as dynamic and diverse as small-scale fisheries (FAO 2005, Sowman 2006).

In South Africa, the only fisher group expressly defined by national legislation is subsistence fishers. The MLRA define a subsistence fisher as, *“a natural person who regularly catches fish for personal consumption or for the consumption of his or her dependents, including one who engages from time to time in the local sale or barter of excess catch, but does not include a person who engages on a substantial scale in the sale of fish on a commercial basis”* (MLRA, p12). The definition has, however, been subjected to criticism as it fails to fully characterize the sector, and does not allow one to separate people who could genuinely be regarded as dependent on the resources to meet the needs of food security from those who desire to make a living out of selling resources (Branch *et al.* 2002). During the period of 2000-2001, extensive debates were held within the SFTG in an attempt to identify the

defining characteristics of SSFs in South Africa that would include both subsistence fishers and “artisanal fishers”⁷. The SFTG expanded the definition of subsistence fishers to poor people who personally harvest marine resources as a source of food or sell them to meet their basic needs of food security. The SFTG noted at the time, that both artisanal and subsistence fishers were likely to be managed by the same process so there seemed to be little merit in separating them. However, after extensive consultations between all stakeholders involved, the following definition was developed recently to describe SSFs in South African context. SSFs refer to a “*sector that comprises all those who fish for marine resources on or within the near shore, use no or relatively low technological gear and who have traditionally depended on these resources for their livelihoods, ranging from those who fish primarily for food security to those who sell their catch in order to sustain their livelihoods. In addition, small-scale fishers are predominantly personally involved in the harvesting of the resource. As such, small-scale fishers include artisanal fishers, traditional fishers, subsistence fishers, and bona fide fishers*” (Masifundise 2007, p5).

2.1.2 Dependence on marine resources in small-scale fisheries

The dependence of fishers on marine resources for food security and livelihood in SSFs is well documented (Berkes *et al.* 2001, Charles 2002, 2006, Staples *et al.* 2004, Isaacs 2006, Sowman 2006, Béné 2008). According to Singh *et al.* (2005) the level of dependence on SSFs may vary from country to country depending on whether fishing is a primary or a secondary source of employment. The dependence of SSFs on marine resources is unquestionable given that most coastal fishing communities only have fishing as a main source of income (Charles 2002, 2006, Berkes *et al.* 2001 Staples *et al.* 2004, Béné 2008). However, Béné (2003), FAO (2005) argue that some fishing communities, particularly from inland fisheries, partake in agricultural activities to supplement their fishing income.

The dependence on marine resources is also partially linked to the level of poverty in fisher households (FAO 2005, Béné 2006, Charles 2006, Walmsley *et al.* 2006). Berkes *et al.* (2001) argue that poor people often have high levels of dependence on natural resources for their livelihoods due to limited alternatives. This dependence of SSFs on marine resources is often difficult to understand given the complex nature of fishing communities (Berkes *et al.* 2001, Charles 2002, 2006, Staples *et al.* 2004). However, on the contrary, Castilla (1999)

⁷ According to the SFTG report of 2000, an artisanal fishery represents those people who fish for own consumption but also engage in some commercial activities.

believes that the complexity of SSFs does not only lie in resources dependence, but rather in the social and economic structures of these communities.

In South Africa, the rich marine life has provided livelihoods for many people living along the coast and in nearby settlements (Andrew *et al.* 2003, Kashorte 2003, Branch *et al.* 2006, Masifundise 2007, DEAT 2008, Isaacs 2008). Witbooi (2002) stressed that the dependence of coastal communities on marine resources was enhanced due to the apartheid land policies and influx control laws of the 1960s, which forced “black” South Africans to reside in “homelands”⁸, three of which were located along the east coast. The cumulative effect of high population densities, poor employment opportunities and poverty within these homelands, forced many inhabitants to turn onto traditional subsistence fishing to sustain their livelihoods (Witbooi 2002). Isaacs (2003, 2008) added that the dependence of fishing communities on natural resources in South Africa could be attributed to various reasons ranging from lack of alternative income generating activities to their cultural attachment to fishing. The majority of fishing communities are geographically isolated from major economic areas and in addition, most fishing communities have no access to productive agricultural lands (SFTG 2000, Branch *et al.* 2002). The latter is common in many fishing communities throughout Africa as was reported by Béné (2006) and FAO (2002) who classified fishing communities as having strong and cohesive cultural backgrounds, which are usually the result of considerable accumulated adaptive experiences shaped by various internal and external events. McGoodwin (2001) shared the same view and argued that most small-scale fishers perceive fishing not merely as a means of assuring one's livelihood, but more broadly as a way of living, which is defined by important occupational and cultural values.

Isaacs (2006) and Sowman (2006) reported that in South Africa, most small-scale fishers view fishing as part of their tradition because it has been practised by their forefathers and they often take profound pride in their occupational identity as fishers and their meticulous devotion to fishing. They further emphasized that these cultural dimensions of collective actions, shared cultural identity and a sense of common social norms in fishing communities could play an important role in contributing to livelihoods. In addition, Singh *et al.* (2005)

⁸ Homelands were apartheid constructs in South Africa that consisted of rural areas into which people classified “black” were forced by the state. They were intended to be “self-governing territories” or “independent states” but were in fact mechanisms of exclusion, where there was often overcrowding, extreme poverty and dire lack of services.

argued that the nature of dependence is that fishing is regarded as a vital buffer that balances shifts in household income and food supply.

Béné *et al.* (2009) argued that small-scale fishers usually have long years of involvement in fishing which is linked from generation to generation. In South Africa, the years of involvement in SSFs are not that well documented (Branch *et al.* 2002, Clark *et al.* 2002, Cardoso *et al.* 2006, Sowman *et al.* 2008). Cardoso *et al.* (2006) asserted that, the majority of small-scale fishers in South Africa had been fishing since childhood and many of the senior fishers have fished for more than 30 years. Similar findings were found by Sowman *et al.* (2008) when studies carried out in Doringbaai and Mboyti revealed that many fishers had been fishing for more than 18 years and above.

2.1.3 Small-scale fisher household profiles

The characteristics of household members in SSFs vary from country to country (Wagenaar and D'Haese 2007, Béné *et al.* 2009). For instance, (Gomna and Rana 2007) reported that in Philippines, the average family size of most fishing households is between six and seven members. Males who are in most cases the active fishers, head most fishing households (Branch *et al.* 2002, Béné *et al.* 2003, 2009, FAO 2005, Wagenaar and D'Haese 2007). Cardoso *et al.* (2006) on the other hand found that the number of active fishers per household in South Africa is normally one fisher. However, in some households, the number could be high as three fishers (Cardoso *et al.* 2006). Women fishers also head some households but this number is relatively low ranging between 10-30% in fishing communities (Béné *et al.* 2009). In South Africa, the SFTG reported that there were 147 fishing communities countrywide comprising 29 200 individual fishers living in 28 300 households (SFTG 2000). Branch *et al.* (2002) reported the average number of people per household to between three and four on the west coast of South Africa. This number was slightly higher on the east and KwaZulu Natal coasts with the average number of six and seven respectively (Branch *et al.* 2002). In their review of IRMs in 2007, Masifundise found that the average number of household members were two adults and two children.

2.1.4 Type of fishing equipment used

It is argued that the two main defining characteristics of SSFs are their individual capital commitments and levels of production (Berkes *et al.* 2001, FAO 2002, Berkes 2003, Staples *et al.* 2004, Johnson *et al.* 2008). The majority of small-scale fishers rely on limited

mechanized traditional fishing gears such as relatively small nets, traps, baskets and spears, with often moderate catches and relatively small capital (McGoodwin 1995, 2001 Berkes *et al.* 2001, Matthew 2001, Staples *et al.* 2004, FAO 2005). Furthermore, SSFs vessels are generally poorly equipped, lacking the most basic safety equipment such as life vests, radios or radar reflectors and this has led to many reported cases of losses of life at sea in fishing communities (see Table 2.1). In addition, Kent (1997) argues that SSFs require less capital, produce more employment opportunities per unit capital, and yield a broader distribution of benefits than large-scale fishing. Kent (1997) reasons that development efforts and trade favour larger-scale commercial fisheries, which provide more income, SSFs generate larger nutritional benefits. In South Africa, SSFs use simple fishing gear such as hook and line, small-motorized boats to harvest a range of coastal species such as WCRL, line fish species such as snoek, hottentot, yellowtail and harvesting mussels found along their shores (Branch *et al.* 2002, Sowman 2006, Masifundise 2007).

2.1.5 Fishing effort

Wagenaar and D'Haese (2007) argue that the number of fishing days in SSFs depends on various factors. They elaborated that in most parts of the world, fishing effort is determined by the weather, rights to harvest the resource and access to fishing boats and equipment. They argue that the boats and their equipment are the most important capital assets that fishers have. Béné *et al.* (2003) shared the same view and stressed that those fishers with appropriate boats and fishing gear have more control over the number of days to fish. Wagenaar and D'Haese (2007) reported that fishers in the Gulf of Aden go fishing on a daily basis. According to Cardoso *et al.* (2006) fishers in South Africa had no regular pattern of fishing frequency but research along the west coast indicates that most fishers are active between one and four times a week. Branch *et al.* (2002) also reported the fishing effort of between two and five times a week and it primarily depended on weather conditions.

Table 2.1 Common characteristics in SSFs adapted from FAO 2005, Berkes et al. 2001, Kashorte 2003.

<i>Characteristics</i>	<i>Descriptions</i>
Main use of resource	Self consumption and sale
Needs met by resources	Resources provide part of basic food requirements and source of income to supply food other food sources.
Simple Technology (low running costs, fuel consumption and simple fishing gear)	Less mechanical power than industrial fisheries, rely on human power, passive gear (hand line, fish traps, gillnets and long line)
Minimum ecological impact	The use of passive gear reduces damage to the environment especially the marine benthic environment.
Minimum power in the market	SSFs often have limited power to influence the fish market, given their small-scale capital commitment; and consequently a greater dependence on the middle man for marketing and loans.
Employment opportunities	SSFs are labour-intensive (from fishing to trading)
Higher versatility	SSFs boats can operate in narrow and restricted areas that could be dangerous to larger commercial fleets.
Lower construction costs	SSFs use simple materials to construct their boats because they do not stay long at sea. However, their safety is often poor.

2. 2 Small-scale fisheries contribution to food security and income of fisher households

2.2.1 Defining the concept of food security

The concept of food security was initiated by the FAO in 1974 after the food crisis that devastated a number of third world countries (FAO 2005, Thériault *et al.* 2005). It was then referred to solely as the global availability of adequate food supplies necessary to meet the needs of a growing world population (Thériault *et al.* 2005). The concept has substantially

evolved since it was first introduced and to date, food security is no longer viewed simply as a failure of the farming industry to produce adequate food at the national level, but instead a failure of livelihoods to guarantee access to sufficient food at the household level (Maxwell 2003, de Klerk *et al.* 2004).

In Maxwell (2001) there is a list of definitions of food security and insecurity, which the academic world grappled with between 1975 and 1991. Maxwell (2002) argues that all definitions provide valuable insight into the underlying perspectives of the individuals and institutions that have advanced them. A number of these definitions focused on the acquisition of sufficient calories to meet energy requirements, others focus on enough food for good health, whereas some are concerned with food security at the national scale, others pertain to food security at the level of the household and individual (Maxwell 2001). However, the definition for this study was taken from the Program in Urban Food Security (PUFS) at the University of Cape Town. It defines food security as, “*The ability to secure an adequate daily supply of food that is affordable, nutritious, hygienic and culturally-appropriate, and involves the reliable and sustainable production, procurement, distribution and consumption of goods* (PUFS 2008, p1). Ruel *et al.* (1999) also defined food security at household level, describing it as when a household has access to the food needed for a healthy life for all its members. The food must be adequate in terms of quality, quantity, safety, and culturally acceptable, and when households are not a high risk of losing such access (Ruel *et al.* 1999). Hendricks (2005) stressed that household food security could be measured by assessing direct and indirect indicators that reflect food supply, food access and outcome indicators. Household food supply indicators include production and institutional support such as access to credit or financial assistance (Hendricks 2005). In addition, food access may include food entitlement and socio-economic indicators that indicate household ability to cope with various stresses induced by economic and social changes.

In South Africa, the SFTG found that 43% of the fisher households on the west coast, were food insecure (SFTG 2000). In addition, the majority of these households had no other sources of income besides fishing (SFTG 2000). Rose and Charlton (2002) quoted in Hendricks (2005) argue that food insecure households were more likely to be in rural areas, that are characterised by large household sizes and low incomes. This view is shared by Branch *et al.* (2002) who asserted that geographically isolated communities, with limited

development show more poverty prevalence and larger household sizes than fishing households in urban areas.

2.2.2 Fish consumption

From the time of the first hunter-gatherers along the rivers of Africa or Eurasia, to the modern era, fish have always played an important role in food security (Andrew *et al.* 2007). During periods of famine, fish was frequently used to barter for other staple foods, thus preventing the population from starving or being forced to migrate. County and Duran (1968) quoted in Béné (2003) for instance, reported that during the 1902 famine in the Lake Chad area, local Massa populations were able to survive by exchanging dried fish for sorghum with migrant merchants.

The nutritional value of fish is often presented as an important source of protein, especially where other sources of animal protein are scarce or expensive (FAO 2002, 2005). The importance of fish in the diet can be estimated by the extent to which it accounts for the animal protein intake. Gomna and Rana (2007) in their study on Inter-household and intra-household patterns of fish and meat consumption in fishing communities in Nigeria, found that fish consumption was higher than that of meat in the households. They reported that the contribution of fish to household animal intake accounted for up to 77% of dietary animal protein intake. Labrosse *et al.* (2006) found similar findings in the Pacific region, whereby fishing households consumed fish and fish products in five out of seven main meals per week compared to other meat intake of two out of seven main meals. Gomna and Rana (2007) argue that households with limited income sources consumed more fish a source of animal protein because they acquired fish at no monetary cost. The type of fish consumed in households could be due to the abundance of the consumed species (Gomna and Rana 2007). In addition, the preference of type of species consumed in the households could be influenced by low market value of that particular species, which could influence households to consume these species rather than selling them. The amount of catch consumed and sold is examined in the next section

2.2.3 Amount of catch consumed in households

According to Béné (2006), the percentage of total catch consumed at the household level varies greatly across countries. He argues that this may depend on both the level of commercialization in the fishery and the level of poverty in the household. It is often assumed

that poor fishing households consume a greater proportion of their catch, but a study by Béné *et al.* (2003) in Lake Chad, indicated that the poorest households may consume a lower proportion of their catch than better-off households. They found out that, instead of consuming their catch, they might sell most of their fish in order to be able to purchase other food supplies. This shows that consumption in poor household may be actually lower than anticipated. In addition, Gomna and Rana (2007) also argue that lower consumption rates in households with limited income sources could be due to households selling more of their fish catch to generate income. However, it is important to note that, even though the contribution of SSFs to food security may not be direct consumption, the earnings from sale of catches can indirectly contribute to food security by purchasing other food sources.

Although there is limited empirical research on amount of catch consumed at fisher households in South Africa, it is believed that fishers keep a portion of catch for household consumption (Branch *et al.* 2002, Cardoso *et al.* 2006, Masifundise 2007). Branch *et al.* (2002) found that on the west coast, only 15% of line fish catch is kept for household consumption. They further reported that households consumed about 20% of their WCRL catch. Sowman *et al.* (2008) reported that determining the amount of catch consumed at home is difficult as the majority of fishers particularly along the east coast only consume their catches if they cannot sell them. Hence, the amount consumed at home is dependent on the market.

2.2.4 Fishing as the main source of income

Walmsley *et al.* (2006) and, Gomna and Rana (2007) argue that in cases where fishing is normally the main economic activity, the degree of dependence on fisheries resource for cash income can be substantially high. Béné *et al.* (2003) reiterated this point, and stressed that fishing is an important activity on which the poorest households can rely to earn an income particularly in areas lacking equitable access to land. Béné *et al.* (2009) found that in Congo Basin, small-scale fisher households generate approximately 65% of their total cash-income through fishing. It study further revealed that only 30% of the households were exclusively depended on fishing for a source of income.

However, many fishing households are also involved in other livelihood activities to generate income, such as farming and ad hoc jobs. Maxwell and Frankenberger (1992) argue that rural households engage in a wide range of activities to generate a livelihood to achieve food

security. Branch *et al.* (2002) asserted that this is also true of all fishing households surveyed in the SFTG study, whether they were in rural, town or metropolitan areas. Béné *et al.* (2003) stressed that income from fishing is considerably higher than that derived from other activities combined. Similar findings were found by Ninnes (2004) who reported contributions of fisheries to cash income in Southern Africa coastal households to be between 40% in Mozambique and 55% in Tanzania respectively.

In South Africa, SSFs rely mostly on marine resources to provide their means of livelihood and they do not make enough profit from their fishing activities to accumulate financial capital (Kashorte 2003, Hauck *et al.* 2003, Castilla *et al.* 2006, Sowman 2006, Masifundise 2007). Cardoso *et al.* (2006) found that in fishing communities of Paternoster and Struibaai on the west and south coast of South Africa, fishing contributed between 76-100% of household's total income. In addition, they found that about 83% of fishers in both communities were not involved in other part-time activities that brought in an income. However, other household members were involved in other income generating activities such as domestic work, working in hotels and fish factories. Other sources of household income came from government grants such as social grants and disability grants (Cardoso *et al.* 2006).

The amount of income received from catch sales is dependent on unpredicted variables such as size of the catch and type of species as well as and market prices (Cardoso *et al.* 2006, Gomna and Rana 2007, AFA 2008, Béné *et al.* 2009). Béné *et al.* (2009) argued that income from fishing is irregular and relatively low, as fishers do not necessarily make huge profits from their sales. However, in areas where the demand for fish is high, fishers earn more from their catches (Labrosse *et al.* 2006). Another important factor that determines earnings from catch sales is the size of the fish. Béné *et al.* (2009) argue that fishers tend to sell the larger size fish because they can earn more money than from smaller size fish. In addition, the preference of particular species by customers also influences the value of the catch. Clark *et al.* (2002) found that in South Africa, fishers target and sell mostly species classed as high-value resources such as WCRL and commercial line fish (snoek, yellowtail, kob, roman and elf). Therefore, the exact amount of income received from catch sales thus varies from country to country and type of targeted species.

However, with regard to IRMs, Masifundise (2007) in their evaluation report on the first IRMs in South Africa in 2007, indicated that approximately 151 households from five fishing communities along the west coast showed an improvement in fishers income from approximately R320 to R2400 per month. Feike (2008) added that despite the short fishing period, interim relief permits have made a large difference to the fishing communities by providing an income, bringing hope to people and renewing their confidence in those who are responsible for addressing inequalities and addressing the needs of small-scale fishers.

2.2.5 Expenditure of income from fishing

Households spend their fishing income on different needs such as food, health, education, housing and fishing inputs (Berkes *et al.* 2001, Branch *et al.* 2002, Clack *et al.* 2002, Béné *et al.* 2003, 2009, Cardoso *et al.* 2006). Béné *et al.* (2009) in their Congo Basin study, found that the poorest households spend a large proportion of their income on household necessities such as electricity and water and less on manufactured goods than better-off households do. Their study indicated that food expenses were relatively low by comparison to other expenses, as households were involved in other agricultural productions that provide other food sources. On the contrary, the SFTG (2000) indicated that fisher households in South Africa spend between 66% and 89% of their fishing income on food. They argued that most of these households have no other alternatives to produce food such as crop cultivation and farming. Clack *et al.* (2002) reported similar findings when they found that fishing households spend more than 60% of their income on food sources because they cannot produce other food sources by themselves. Béné *et al.* (2003, 2009) asserted that the most important contribution of SSFs to food security is not the caught fish itself, but rather the use of income generated from catch sales to buy other sources of food. AFA (2008) added that fishers use income from fishing to buy other staple food such as bread, milk and other meat products with the income they received from their catch sales.

A significant portion of income is also spent on fishing inputs such as boat servicing, bait, fishing equipment (McGoodwin 2001, Berkes 2003, Staples *et al.* 2004, Béné *et al.* 2003, 2009). Béné *et al.* (2003) reported that vessel owners in the Lake Chad SSFs reinvest about 11% of their income from fishing into upgrading their vessels with more advanced and efficient fishing equipment and consequently improving their earnings. In addition, a large amount of money is spent in the local economies when fishers buy bait for fishing and other expenses such as vessel fuels, servicing of boats and fishing gear.

2.2.6 Small-scale fisher involvement in resource management

Experiences from South Africa and the rest of the world clearly indicate that fishers have been deprived of participating in management of the resources they harvest (Berkes *et al.* 2001, Hauck *et al.* 2002, Hara and Nielsen 2003, Staples *et al.* 2004, Jentoft 2006, Hauck 2008). Staples *et al.* (2004) argues that small-scale fishers are seldom consulted in decision-making processes. Béné (2006) explained that in some countries, the ignorance amongst government with regard to involving small-scale fishers in decision-making processes was not deliberate, but a result of an accumulation of policies and development decisions to modernize the commercial fishery. He further stressed that the marginalisation of SSFs is largely due to ignorance of the role they play in addressing social and economic needs. Johnson (2006) views the lack of participation of small-scale fishers in fisheries development and management due to the shortage of necessary skills amongst government officials as well as a lack of political will. He argues that it is the duty of officials to understand the wide range of social and cultural factors affecting the lives of people involved in the SSFs sector and how government interventions affects their livelihoods. In addition, Walmsley *et al.* (2006) stressed that involvement of resource users in participatory management schemes is critical in ensuring sustainable fisheries management. Jentoft (2006) argues that participation in management processes by small-scale fishers may lead to empowerment if it is designed to redistribute power, address issues of equity, and stimulate learning. Pedersen and Sunde (2007) added that if these three aspects of empowerment are implemented, they might enhance community development and poverty alleviation.

However, on the contrary, Walmsley *et al.* (2006) argued that SSFs are partially neglected due to their own lack of organisation and mobilisation. Pedersen and Sunde (2007) argue that in South Africa, lack of organisation among SSFs is primarily a due to a history of no participation and oppression that is characterised by low levels of organisation and management capacity. Isaacs (2006, 2008) supports this view and argues that most traditional fishers in South Africa failed to acquire fishing rights and have their voices heard because they lack representation and formal structures. Isaacs (2008) added that participation of fishers in influencing decision-making processes, such as the formulation of laws, development of projects and research should be encouraged. The United Nations Educational Scientific and Cultural Organization (UNESCO) (2007) argues that in most cases small-scale fishers knowledge is often the only available knowledge, it also constitutes a low cost resource base as opposed to conventional biological science. Hauck (2008) stressed that the

involvement of small-scale fishers in research is critical in promoting compliance⁹ of regulations. Harris *et al.* (2002) shared the same view when reporting on high levels of compliance in the management of resources in St. Lucia, South Africa as a result of direct participation of the resource users in the decision making process.

Walmsley *et al.* (2006) stressed that access to information and a responsive policy environment is vital in instilling confidence in authority and political awareness among small-scale fishers. Hauck *et al.* (2002) in their study about the perceptions of small-scale fishers regarding management of resources, found that fishers experienced difficulties in accessing information about policies and procedures, understanding the level of language used, communicating with authorities and understanding the different rulebooks used by enforcement agencies. The study found that communication was generally poor between fishers and authorities (Hauck *et al.* 2002). For instance, new regulations are not communicated to fishers on time, on some occasions resulting in harassment and arrests by enforcement agencies as fishers are not aware of changes in laws. In addition, fishers were not included in research activities in their areas and findings from these studies are not always shared with them. Moreover, they reported that fishers felt that they were being excluded from management decisions that affect their livelihoods and when given an opportunity to give input, their recommendations are not reflected in management decisions. Therefore, participation of resource users in management processes is viewed as necessary for sound management (FAO 2002).

In summary, the chapter discussed the nature of SSFs, their contribution to food security and income of fishers as well as the need for fishers to participate in management of resources they harvest. The chapter provided information on both the global context as well as the South African context. The literature revealed that there are similarities on how small-scale fishers are operating in both contexts. The international, regional instruments and domestic legal frameworks are presented in the next chapter.

⁹ Compliance is generally understood as the behavior of people to conform to rules that have been developed to influence actions (Tyler 2006).

CHAPTER 3: POLICY AND LEGAL FRAMEWORKS RELEVANT TO SMALL-SCALE FISHERIES AND FOOD SECURITY

Introduction

The chapter examines relevant international and regional “soft law”¹⁰ instruments as well as domestic laws and policies that are used to inform and regulate SSFs in South Africa. The chapter also discusses instruments relevant to food security promotion in South Africa. Understanding the provisions of these international instruments is important as they guide the formulation of national policy and legislation. The chapter also discusses the introduction of IRMs in South Africa as a tool to address food insecurity and improve small-scale fisher livelihoods by allowing them access to harvest marine resources for a specified period. It should be noted that some of these instruments were considered in the decision to introduce IRMs in South Africa for poor small-scale fishers who had no access to marine resources.

3.1 International and regional instruments relevant to small-scale fisheries

3.1.1 Historical Perspective

The legal background to determining marine resource rights started during the Roman Empire, when nations decided that the sea was a common right to all men (Lowe 2008). After the collapse of the Roman Empire, individual states zoned areas of the sea and declared them closed seas. It is believed that two ideas have dominated the evolution of the current international legal framework for oceans management and resource exploitation: firstly, the doctrine of the freedom of seas and secondly, the belief in the inexhaustibility of ocean fisheries (FAO 2006). During the doctrine of the freedom of seas era, in the seventeenth century, nation rights were limited to a narrow belt of approximately 4.8 nautical miles (Munro 2007). Nations believed the seas were such a vast resource that all nations could use them as they wished. However, after the technological revolution in the mid-twentieth century, conflicts started to occur between nations sea fleets dominated primarily by fishing and cargo (Munro 2007 and Lowe 2008). The technological revolution led to the doctrine of inexhaustibility. Nations believed the ocean resources would never be over-exploited and anyone could fish as much as they chose to fit. This led to the collapse of commercial fisheries such as the northern Canadian cod fishery in the 70’s and 80’s, competition became fiercer as stocks dwindled and conflicts emerged as commercialisation took over (Olsen *et al.*

¹⁰ The majority of international laws are soft laws, meaning that they do not comply with constitutional and other formalities or understandings that are necessary for the rule to be legally binding.

2004). These developments prompted fishing countries to recognize the need for regulation of fisheries (Joubert *et al.* 2006).

3.1.2 The United Nations Convention on the Law of the Sea (UNCLOS) (1983)

UNCLOS is the most significant international agreement signed by coastal nations because it forms the legal regime for oceans and all marine living resources therein (Witbooi 2006). It gives the responsibility of managing marine and coastal resources in the 200 nautical mile Exclusive Economic Zone (EEZ) to the coastal states. Signatory states are required to uphold and practice various conservation and sustainable use of resources within their respective EEZ's. Most of the provisions of UNCLOS are regarded as international "customary laws"¹¹. However, most of these provisions are incorporated in South Africa domestic legal regime for example in the Maritime Zones Act 15 of 1994 and the Marine Living Resource Act 108 of 1998. The Maritime Zones Act defines South Africa's rights and the application of South African law to its maritime zones, namely: internal waters, territorial waters, contiguous zone, maritime cultural zone, EEZ and the continental shelf (Glazewski 2003).

3.1.3 FAO Code of Conduct for Responsible Fisheries (1992)

The FAO Code of Conduct was adopted at the 1992 international conference on responsible fishing, in Cancun, Mexico. The code of conduct sets out principles and international standards of behaviour for responsible practices with a view to ensuring effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity (FAO 2005). One of the most significant Articles in the Code of Conduct is Article 6.13, which calls for "*effective participation of fish workers and others....in decision making with respect to the development of laws and policies related to fisheries management, development, international lending and aid*". Another important Article relevant to this study is Article 6.18, which calls for states to "*appropriately protect the rights of fishers and fish workers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure and just livelihood, as well as preferential access, where appropriate, to traditional fishing grounds and resources in the waters under their national jurisdiction*".

¹¹ Customary laws are conventions established by long usage. However, the majority of custom laws are not written.

The Code of Conduct is very inclusive of many other international declarations and legislation. For instances, the Universal Declaration on Human Rights (UDHR) Article 21, which calls for rights to participation in governance and Article 25 which calls for adequate standard of living and adequate food supply. It further recognizes the nutritional, economic, social, environmental and cultural importance of fishers and all concerned with the fisheries sector. It takes into account biological characteristics of the resources and the environment and the interests of consumers and other users. The Code of Conduct is a non-legal binding law and States can implement it voluntarily only. South Africa has adopted the Code of Conduct and some of the provisions are reflected in the principles and objectives of MLRA. Unfortunately, most of these provisions are rarely implemented.

3.1.4 The Millennium Development Goals (2000)

The Millennium Development Goals (MDGs) have set ambitious targets for improving human well-being by 2015. As the international community increases investment to meet these targets, fisheries is one of the areas identified to be given special attention, as it is believed that in fisheries, there is better leverage for improving people's lives. Goal 1 stressed that fisheries can make important contributions on poverty reduction and food security and can be a source of wealth creation, supporting national economic development (WFC 2007). They indicated that the contributions of fisheries to the MDGs are of two kinds: direct contribution to specific goals and indirect support to all the goals through enhanced livelihoods. They argue that the strength of fisheries, and in particular of SSFs is that they enables millions of poor fishers, processors and traders to diversify their livelihood strategies on the basis of income and commercial skills while at the same time supplying vast numbers of poor consumers with essential nutrition (WFC 2007). MDGs is one of the few international agreements that specifically identified fisheries to be an important sector in addressing food security and eradicating poverty in the third world countries. The South African government

3.1.5 The Southern African Development Community (SADC) Protocol on Sustainable Fisheries

SADC Protocol of Fisheries was implemented in 2003 to promote fisheries relations between member countries. The main objective of the Protocol is to promote responsible and sustainable use of the living aquatic resources and aquatic ecosystems of interest to country. The Protocol is striving to *“promote and enhance food security and human health; safeguard*

the livelihood of fishing communities; generate economic opportunities for nationals in the Region; ensure that future generations benefit from these renewable resources; and alleviate poverty with the ultimate objective of its eradication” (SADC Protocol of Fisheries 2002 p3).

While South Africa has adopted various Protocol provisions, domestic legislation fails to adequately and satisfactorily reflect the overall suite of obligations advocated by the Protocol. Sowman (2006) argues that provisions in the Protocol that deal with the protection and needs of artisanal and subsistence fishers, have not been implemented fully. Furthermore, Cullinan and Daniels (2004) argue that in terms of implementation of regional and international obligations concerning small-scale fishers, South Africa is still lagging behind.

3.2 International and regional instruments promoting food security

“The demand for food security is one of major challenges the world is facing in the 21st century” (FAO 2005, p2).

3.2.1 The right to food and the emerging concept of food sovereignty

The subject of food security has gone through some major defining periods over the past five to six decades. In 1948, the Universal Declaration on Human Rights identified the right to food as the main factor in ensuring adequate standard of living (Argeñal 2006). The notion shifted to end hunger during the sixties when the FAO launched the International Freedom from Hunger Campaign that mobilized government and non-governmental support to end hunger by enabling people to grow enough food for themselves, rather than through reliance on food aid (Argeñal 2006). In 1974, the heads of state gathered in Rome, Italy, to examine the global problem of food production and consumption, and proclaimed that every man, woman and child has the inalienable right to be free from hunger and malnutrition in order to develop their physical and mental faculties (Maxwell 2001, Argeñal 2006). Maxwell (2001) reported that between the 1980s-1990s the paradigm shifted as policy makers began to explore individual and household food security as opposed to food security from a national perspective. This resulted in an understanding that food availability alone does not provide food security.

More recently, the right to food is being recognized increasingly as a fundamental right. In particular, since the General comment No. 12 of the Committee on Economic, Social and Cultural Rights that food security has been declared as everybody’s problem (FAO 2005). Abgrall (2005) argues that this is true in moral and political terms, but it is also true in

economic terms and no major international project on development can ignore it. The right to food is also highlighted in the FAO Constitutional and Universal Declaration of Human Rights (FAO 2006). They argue that the right to food should be the foundation of any effort to end hunger and achieve food security. To support their argument, they emphasized that if people's rights to food is recognised then their right to produce food and access to the productive resources such as land and fishing must be recognised. However, the right to food does not say individuals have a right to be provided with food, but should be interpreted as the right to feed oneself in dignity, through economic and other activities (Gobena *et al.* 2009).

Another emerging concept regarding the need to address food security is the food sovereignty concept. According to the 2002 Atitlan Declaration, food sovereignty is defined as *“the right of peoples to define their own policies and strategies for the sustainable production, distribution, and consumption of food with respect to their own cultures and their own systems of managing natural resources and rural areas and is considered to be a precondition for food security”* (FAO 2006, p1). This definition embraces both the right to food and the right to produce and distribute food. The latter can be interpreted as the right to access and harvest resources by fishers especially where such resources exist and could be harvested. Furthermore, the concept of food sovereignty advocates for the participation of indigenous people at all stages of decision making with respect to management of resources upon which they depend. In addition, the concept is striving to ensure that fishers and user groups alike realize their economic, social, cultural rights and needs regarding the choice of food, access to food and food production (FAO 2006). According to FAO (2005) and Cunningham (2006), the following are four key dimensions in achieving household food security;

1. **Stability of food supply** (Stability of food supply entails that households have adequate access to food at all times and should be not at risk losing that stability due to weather conditions, political instability, or economic factors (Unemployment, rising food prices).
2. **Sufficient availability of food** (Food availability addresses the supply food for food security and is determined by the level of food production and allocation).
3. **Access to food supplies** (Access to food supplies refers to an adequate supply of food to households)

4. **Biological utilization of safe and nutritional food** (Utilization is commonly understood as the way the body makes the most of various nutrients in the food. Sufficient energy and nutrient intake by individuals is the result of good care and feeding practices, food preparation, and diversity of the diet and intra-household distribution of food).

However, this study will only examine the first three components because of their relevance to the objectives of the study.

3.2.2 The 1995 Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security

The Declaration was prompted by the need to respond in a sustainable manner to a continuously growing world population and the need to secure food for the people in present and future generations as well as the significant contributions of fisheries to income, wealth and food security mostly for developing countries (FAO 1996). The Declaration also acknowledges the FAO projection that the demand for fish will increase faster than the supply in the new millennium with an estimated demand of 110-120 million tons in 2010, against a supply of only 73-108 million tons (FAO 1996). Furthermore, the Kyoto Declaration called for action in conserving and managing fishery resources, strengthening scientific research for sustainable development of fisheries and aquaculture, adjusting the fishing capacity to a level commensurate with long-term stock productivity, and increasing the available supply of fish and fishery products for human consumption, nationally and internationally. Despite South Africa being a signatory nation to these provisions in the Declaration, there is less practical commitment particularly on the provision of increasing the available supply to people locally.

3.2.3 The 1996 Rome Declaration on World Food Security (RDWFS)

The Declaration, in its broadest sense, urges the promotion of optimal allocation of natural resources, and the efficient use of public and private sector resources to achieve global food security goals (FAO 1996). The Declaration is important in term of the food security concept because the RDWFS stresses the importance of sustainable management of natural resources and the elimination of unsustainable patterns of consumption and production. The Plan of Action adopted by the Declaration recognized degradation of land and aquatic-based natural resources and the need to restore and rehabilitate these resources in depleted and

overexploited areas to achieve greater production. The Plan of Action therefore calls for all States to collaborate to achieve sustainable world food security and availability of enough food for all (FAO 1996).

South Africa pledged to support the World Food Summit Plan of Action that is encapsulated in the 1996 Rome Declaration on World Food Security. South Africa further committed itself to creating an enabling political, social and economic environment and to implementing policies to eradicate poverty. It pledged to ensure that technology development, farm management, trade and growth policies and distribution systems foster food security. As a response to the Rome Declaration, the government appointed a Food Security Working Group to investigate options to achieving food security in South Africa. The government embraced the Declaration by introducing the Integrated Food Security Programme (IFSP) in 2002. One of the two main purposes of IFSP was to increase household food production and trading and improve income generation and job creation opportunities (Department of Agriculture 2002). Because the IFSP was in the Department of Agriculture, it did not place fisheries as central to achieving food security in households.

Summary

The various international instruments discussed above, are concerned with the management and promotion of SSFs and the need to take into consideration the special needs of small-scale fishers by protecting and giving them preferential treatment. The instruments recognise the importance of SSFs in addressing food security and livelihoods of millions of people particularly in developing countries. It has also emerged from the review of international and regional instruments that an inclusive participatory approach to managing SSFs is required when making decisions that may affect fisher livelihoods. However, it should be noted that these instruments are “soft laws” and countries may choose to implement or adhere to them although there is a moral obligation to do so. South Africa is signatory to the instruments outlined above and the country has attempted to integrate the proposals contained within these instruments into domestic laws and policies. These are discussed in general detail in the next section.

3.3 Policy and legal frameworks in South Africa

The domestic laws, policies and national strategies regulating SSFs and promoting food security in South Africa are examined in detail in this section. The key national policies and

laws reviewed in this section are the South African Constitution, the National Environmental Management Act (NEMA), the Marine Living Resources Act (MLRA), the Reconstruction and Development Programme's (RDP) food security framework and the Integrated Food Security Strategy (IFSS) of South Africa. The Draft Policies for the Allocation of Long term and Medium-term small-scale commercial fishing rights are also reviewed. The section also discusses the IRMs as a tool implemented by former Minister Marthinus Schalkwyk of the Department of Environmental Affairs and Tourism, to allow small-scale fishers to harvest marine resources until a new policy for SSFs in South Africa is formulated. The section also discusses how international debates and policies have influenced domestic policies. However, the section will first provide an overview of the current perspectives on SFCs management in South Africa.

3.3.1 Current frameworks for management of Small-scale fisheries

Over the past decade, fishing policies concerning SSFs and the plight of coastal fishing communities have been in the spotlight (Hersoug and Holm 2000, SFTG 2000, Branch *et al.* 2002, Hauck and Sowman 2003, Isaacs 2006, Sowman 2006, Masifundise 2007, 2008, Sunde and Pedersen 2008, Hauck 2009). In 1995, the new government of National Unity recognised that a new policy was needed to guide the fisheries development process and to address issues caused by past power or market imbalances (Van Sittert 2002, Witbooi 2006). This new policy was the starting point that set out the objectives and framework to guide the development of legislation, related institutional arrangements, and actions and decisions affecting SSFs in South Africa (Branch *et al.* 2002, Clark *et al.* 2002, Cockcroft *et al.* 2002, Staples *et al.* 2004). The government recognised that many poor coastal communities relied on fishing as a main source of food and livelihood (Hauck and Sowman 2003, Isaacs 2003, Sowman 2006). The Minister of Environmental Affairs and Tourism at the time launched a new Fisheries Policy in 1995 for South Africa, which aimed to benefit previously disadvantaged and marginalised communities living near the coast. One of the main objectives of the new Fisheries Policy was to transform the fishing industry to accommodate previously disadvantaged individuals and groups and address historical injustices (Van Sittert 2002, Clark *et al.* 2002, Cockcroft *et al.* 2002, Isaacs 2003, 2006, Sowman 2006).

The development of the new Fisheries Policy in South Africa was guided by the Fisheries Policy Development Committee, which led to the publication of a White Paper in 1997. The policy was given the effect of law through the enactment of the MLRA in 1998. The Act was

founded on the concepts of addressing the injustices of the past, promoting intergenerational equity and equitable access to resources, redistribution of income and creation of employment opportunities, maintaining the stability of the industry and ensuring the sustainable use of the aquatic resources (Witbooi 2006). The MLRA took its cue from the African National Congress Reconstruction and Development Program of 1995, which states in its Policy Framework that *“the primary objective of fisheries policy is to uplift the impoverished coastal communities through improved access to marine resources and the sustainable management of those resources through appropriate strategies”* (Article 4.5.3.2).

The MLRA recognised the subsistence fishing sector and the need to manage the sector to address the needs of poor fishers. The task of managing the subsistence fishery was entrusted to Marine and Coastal Management (MCM), a Chief Directorate under the Department of Environmental Affairs and Tourism is responsible for fisheries management in South Africa. This was a huge task for a department that had previously had been only involved in research, resource management and enforcement and compliance that focused on the large-scale fishery sector. They thus lacked the capacity to deal with complex social and economic issues of this fishing sector (Van Sittert 2002, Isaacs 2006). In order to advise on management of the subsistence sector, MCM appointed the SFTG in 1999 to assess the subsistence sector and provide recommendations on how the fishery should be managed. The SFTG recognised and proposed that there were three categories of fisheries namely subsistence, artisanal and commercial (SFTG 2000). Under the MRLA, traditional fishers were not legally recognized as all fishers were considered as subsistence, although a limited small-scale commercial sector was introduced in 2005 to cater for small-scale commercial fishers (Isaacs 2006, Masifundise 2007). Under the limited commercial sector, only few fishers were successful in acquiring fishing rights. Fishers felt that the transformation system has further marginalised traditional fishers, who see themselves as people whose lives and livelihoods are dependent on fishing (Isaacs 2006, Van Sittert *et al.* 2006).

The rights allocation process led to contestation in courts between 2001 and 2006 (Isaacs 2006, Sunde and Pedersen 2007). Of particular relevance to this study was when Masifundise (representing traditional fishers) and a few individual fishers took the Minister of Environmental and Tourism Affairs to the Equality Court in 2006. Their argument was that the fishing rights allocation policy was continuing to prioritise the rights of medium and

large-scale commercial interests at the expense of small-scale traditional fishers. In addition, they argued that SSFs continue to experience increasing difficulties in accessing the sea, resulting in deepening poverty despite the introduction of new legislation to promote transformation in the fishing industry (Masifundise 2007). In May 2007, the court ruled in their favour, and an out of court settlement was reached between the two parties. One of the conditions of the settlement was the need to revisit and redraft the subsistence fishing policy through consulting all affected and relevant stakeholders, and ensuring that rights of traditional fishers were recognised and catered for. MCM also agreed to issue interim relief permits as a measure to provide access to marine resources to “bona fide fishers”¹² that had been disadvantaged by the previous allocation processes while the new policy was being drafted.

However, in April 2008, the West Coast Rock Lobster Association lodged a court application in the High Court of South Africa to have the Minister’s decision to grant interim relief set aside. They argued that the Minister is precluded from using section 81 of the MLRA in order to grant traditional small-scale fishers rights to catch and sell West Coast Rock Lobster for commercial purposes. In July 2008, the High Court in its ruling, said that the Minister had acted reasonably when taking his decision by introducing IRMs pending finalization of a new fishing policy that formally took their needs into account (Sunde and Pedersen 2008). The IRMs were extended to the 2008/2009 fishing season because the proposed Small Scale Fisheries Policy had still not been finalised as was agreed in 2007 Court ruling (Isaacs 2008, AFA 2008).

3.3.2 The Constitution of the Republic of South Africa

The Constitution is the highest legal instrument in South Africa and was promulgated to address past injustices and inequalities in all sectors of society (Constitution of South Africa 1996, Witbooi 2006). The Bill of Rights in the Constitution paved the way for new entrants to enter the fishery sector in general (Isaacs 2006). These rights included among others, the environmental right which ensures that all citizens of the Republic have the right to an environment not harmful to their health or well-being. Another right relevant to the fisheries sector is the Property right, since access to fisheries is regarded as a Property right and these guarantee that every citizen has a right to access fisheries resources (Charles 2002, 2006,

¹² The term bona fide fisher is used in South Africa to refer to people who historically depended solely on fishing for livelihood.

Witbooi 2006). The South African Constitution further makes provision for socio-economic rights, by advocating for access to adequate food, water and the right to choose one's occupation. The latter is very important to SSFs because fishers have the right to choose their trade as fishermen because this is stated clearly in Section 22 of the Constitution, "*every citizen has the right to choose their trade or occupation freely*" (Constitution of South Africa 1996, Section 22). Section 27 of constitution advocates for the right to health care, food, water and social security is concerned with food security for all, granting everybody the right to enjoy access to sufficient food. The right is equally applicable to fishing communities and they accordingly have the right to demand that the state takes reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right. Section 32 is also relevant to SSFs because it advocates for the right to access information held by the state (and by any person, when such information is required for the exercise or protection of any rights).

However, these rights must not be in contradiction with environmental rights hence precaution must be exercised to strike a balance in order to promote sustainable development (Daniels *et al.* 2006). The government is thus entrusted with the responsibility to take reasonable legislative measures to protect the environment, ecological degradation and enhance conservation (Hauck 2008). In addition, government is expected to promote sustainable utilisation of resources at the same time as promoting economic and social improvement.

3.3.3 The Reconstruction and Development Programme's (RDP) Food Security Framework and the Integrated Food Security Strategy (IFSS) of South Africa

The issue of food security in South Africa is highlighted as a constitutional right under Section 27 of the South African Constitution. It states that, "*every citizen has the right to have access to sufficient food and water*", and that "*the state must by legislation and other measures, within its available resources, avail to progressive realisation of the right to sufficient food*" (Department of Agriculture 2002, p5). Therefore, the Constitution obliges the State to provide legislation and other supporting measures to ensure that all citizens are enabled to meet their basic food needs. The introduction of the RDP Food Security Framework in 1994, recognized poverty and food insecurity as the legacy of the apartheid socio-economic and political order hence it identified food security as a priority policy objective. The RDP Food Security Framework was then refined in subsequent policy papers,

such as the Agriculture White Paper (1995) and the Agricultural Policy Discussion Document (1999). The policies outlined in these documents were consolidated and updated in the Integrated Rural Development Programme (IRDP 1999), which is a policy of the Government of South Africa which focuses on the promotion of food security and ensuring that rural communities have access to resources to meet their food and livelihoods needs (Department of Agriculture 2002).

In 2002, the South African government adopted the Integrated Food Security Strategy (IFSS). The vision of the IFSS is to attain universal physical, social and economic access to sufficient, safe and nutritious food by all South African at all times to meet their dietary and food preferences for an active and healthy life. This statement is reflected in the definition of food security by the FAO. Its goal is to eradicate hunger, malnutrition and food insecurity over 2015. And its strategic objectives are to realise this goal and the vision of the Integrated Food Security Strategy which are to: Increase household food production and trading; Improve income generation and job creation opportunities; Improve nutrition and food safety; Increase safety nets and food emergency management systems; Improve analysis and information management system; Provide capacity building and hold stakeholder dialogues (Department of Agriculture 2002).

However the attention is mainly given to school feeding schemes, child support grants, free health services for children between 0-6 years, pension funds for the elderly, community public works programmes, provincial community food gardens, land reform and farmer settlement, production loans scheme for small farmers, infrastructure grant for smallholder farmers and the presidential tractor mechanisation scheme. Despite a large number of coastal communities that depend on fishing for their livelihood, the policy failed to identify SSFs as one the areas that could improve food security in the country. The policy should have incorporated SSFs as one of the sector to address food security as there are many coastal communities in South Africa who rely on fishing for their food security needs (Harris *et al.* 2002, Sowman 2006). This shows that there was a lack of coordination between the Department of Agriculture and DEAT regarding addressing similar issues.

3.3.4 National Environmental Management Act 107 of 1998 (NEMA)

NEMA is a national framework law for environmental management in South Africa and it does not address marine and SSFs matters directly. However, a number of the core

environmental management principles underpinning the Act are relevant to fisheries management. In Section 2, the act sets out various principles which advocate for equitable access to natural resources, equitable participation of interested and affected parties in environmental governance, openness and transparency in decision making and access to information (DEAT 2008). Therefore, indirectly, the needs of SSFs have to be taken into consideration when making decisions that affect the environment, or their needs and interests. Hauck and Sowman (2003) argue that the majority of NEMA principles are generally incorporated into the new fisheries and coastal policies. However, there are concerns with respect to how the principles have been interpreted and implemented.

3.3.5 The Marine Living Resources Act 18 of 1998 (MLRA)

The MLRA regulates all fishing activities in South African waters. The fishing industry is divided into three sectors, namely; commercial, recreational and ‘subsistence fisheries’¹³. The objectives and principles of the MLRA deal with the utilization, conservation and management of marine living resources, the need to protect whole ecosystems, preserve marine biodiversity and minimize marine pollution, as well as to comply with international law and agreements and to restructure the fishing industry.

Section 2 of MLRA, set out broad objectives and principles for fisheries management in South Africa. In particular, Objective j, calls for the need to restructure the fishing industry to address historical imbalances and to achieve equity within all branches of the fishing industry. Another important section of the MLRA is section 18(5), which obliges the minister to give preferential treatment to new entrants especially the ones coming from previous disadvantages backgrounds when issuing fishing rights (MLRA 1998). The MLRA recognised only a subsistence fishing sector and the need to address poverty in coastal communities. However, the MLRA failed to recognise or restore fishing rights to artisanal fishers who were excluded under the apartheid laws prior to 1994 (Isaacs 2006, 2008, Hauck and Sowman 2003, Cardoso *et al.* 2007, Hauck 2009).

Furthermore, the MRLA does not address the need to promote the development of plans to optimise the prospective economic benefits of subsistence fisheries and SSFs, nor does it deal

¹³According to the MLRA, a subsistence person is referred to as a natural person who regularly catch fish for personal consumption or for the consumption of his or her dependants, including one who engage from time to time in the local sale or barter of excess catch, but does not include a person who engage on a substantial scale in the sale of fish on a commercial basis.

with the specifics of the necessary infrastructure and support services required to develop these sectors (Witbooi 2004). Furthermore, one of the main objectives of the MLRA is to utilise marine living resources to achieve economic growth and enhance employment opportunities. The Act failed to specify how this is to be achieved in relation to SSFs. In addition, the MLRA also fails to recognize the need to include indigenous knowledge of small-scale fishers and practices regarding fisheries management and research. Therefore, there is a need to amend some of the MLRA provisions to bring it into line with the international instruments particularly the SADC Protocol on Sustainable Fisheries.

3.3.6 Draft Policy for the Allocation of Long Term Small-scale Commercial Fishing Rights in 2005

In 2005, the Long-term small-scale commercial fishing rights policy was introduced to allocate long-term fishing rights up to 15 years for 19 different commercial species. Fishers were optimistic that this policy would eventually accommodate them and address their needs (Isaacs 2006). The process was completed in 2006 but the outcome resulted in the majority of traditional fishers without fishing rights (Van Sittert *et al.* 2006, Isaacs 2006, Sowman 2006, Masifundise 2007). The policy received stern objections from artisanal fishers who requested President Thabo Mbeki as well as Minister Marthinus van Schalkwyk to place a moratorium on the allocation of long-term fishing rights. AFA (2008) argues that the structure of the Long Term policy does not match the traditions and culture of traditional fishing communities that has been practiced over the generations. Another concern was the administrative procedures and application costs that were beyond the capacities of many “bona fide” poor fishers and on many occasions, even successful applicants were allocated quotas insufficient to meet their basic livelihood needs (Isaacs 2003,2006, Hauck and Sowman 2003). It is argued that fishers had difficulties in completing application forms due to the language used and technical words used prompting powerful local elites to hijack the opportunities of “bona fide” fishers (Isaacs 2006, Hauck 2008).

3.3.7 Medium-term Small-Scale Commercial Fishing Rights and Allocation and Management of Medium Term Subsistence Fishing Rights

The failure of the Long-term small-scale commercial fishing policy of 2005 did not cater for many fishers prompting DEAT to introduce the two policies catering for both small-scale traditional fishers and subsistence fishers. The Minister acknowledged many fishers were left out of the Long-term policy process, hence the policy for the allocation and management of

medium-term small-scale commercial fishing rights and the draft policy for the allocation and management of medium term subsistence fishing rights to address these gaps. However, Masifundise (2008) argued that the distinction made in the two policies between subsistence and commercial is confusing and it is inconsistently used within the policies. Furthermore, the traditional artisanal and subsistence fishers in South Africa argue that they utilize marine resources within a continuum of purpose that is extremely fluid, ranging from harvesting for food security and selling their catch in order to sustain their livelihoods (Sowman 2006, Masifundise 2008, Isaacs 2008, AFA 2008).

3.3.8 A new Small-Scale Fisheries Policy for South Africa

The new small-scale fishing policy is expected to be finalised some time in 2009. Consultations between MCM, various NGO's representing fishers such as Masifundise, Coastal Links and AFA, scientists and other relevant stakeholders have been taking place since 2007 to find a comprehensive policy solution that will address the needs of SSFs in South Africa. The other concern is how to define small-scale fishers more broadly than subsistence fishers, and allow this sector to sell their harvest on local or international markets (Isaacs 2008). The objective of a new small-scale fisheries policy is to alleviate coastal poverty, to impact positively on the livelihoods of the poor and to reduce vulnerability. The policy is expected to address pressing issues in the sector ranging from exclusive access zone to traditional and small-scale fishers, hybrid system of allocation and promotion of multi-species allocations. The policy is expected to be inclusive and provide access rights to most fishers who are currently catered by Interim Relief Measures, which are discussed in the next section. However, the process has been delayed due to different views of scientists, management and fishers particularly on resource conservation versus livelihood of resource users. The policy was expected to be gazetted by 30th of June 2009, but when this study was completed, it was yet to be finalised.

3.4 Introducing Interim Relief Measures for small-scale fishers in South Africa

3.4.1 Introduction

IRMs are fishing exemptions issued by the Minister of Environmental Affairs to allow non-rights holders to harvest marine resource (DEAT 2008). In 1996, a special task team was appointed by MCM to investigate how best to allocate interim relief for the needy fishers in South Africa. They were introduced for the first time in 1999/2000 fishing season to fishers along the Western and Southern Cape coastline (Cockcroft *et al.* 2002). More recently, after the allocation of Long-term and Medium-term small-scale fishing rights between 2003 and 2005, the majority of traditional small-scale fishers were still left out of the exercise (Isaacs 2006, 2008). In 2006, a group of artisanal fishers through NGOs such as Masifundise and Coastal Links (2007) launched class action litigation against the Minister responsible for fishing rights allocation on the grounds that the policies pursued by the South African government are inequitable and discriminatory, and violated the human rights of artisanal fishers (Sunde and Pedersen 2007, 2008). This resulted in the Equality Court ordering the Minister of Environmental Affairs and Tourism to issue immediate relief to traditional small-scale fishers applicants, who could demonstrate their traditional dependence and that they have lost their historical and customary access to the fisheries resources. The Court Order further instructed the Minister to consult subsistence fishers and relevant stakeholders to formulate a new comprehensive small-scale fishery policy within six to eight months period thereafter. Towards the end of 2008, a small-scale fishery policy had still not been finalised hence the measures were extended to 2008/2009 fishing season.

The IRMs were allocated to fishers in Western Cape only. The fishing areas covered were between Cape Infanta to Port Nolloth (see Figure 3.1). The permits authorized harvesting of the following species; WCRL, yellowtail, snoek, hottentot and white mussels. Furthermore, the permit was valid in the inshore waters of South Africa excluding tidal lagoons, tidal rivers and estuaries. The permit is valid from 15 November 2008 to 15 April 2009 for WCRL, until 30 April 2009 for Line fish and until 30 September 2009 for white mussels (DEAT 2008).

3.4.2 Interim Relief Measures permit conditions

The permit authorised permit holders to harvest 4 WCRL per day or 20 per week. Fishers were permitted to harvest their weekly 20 WCRL at once if wish to do so. The Ocean View fishers were only permitted to harvest this resource in their designated area, Area 8 (see Figure 3.1 below).

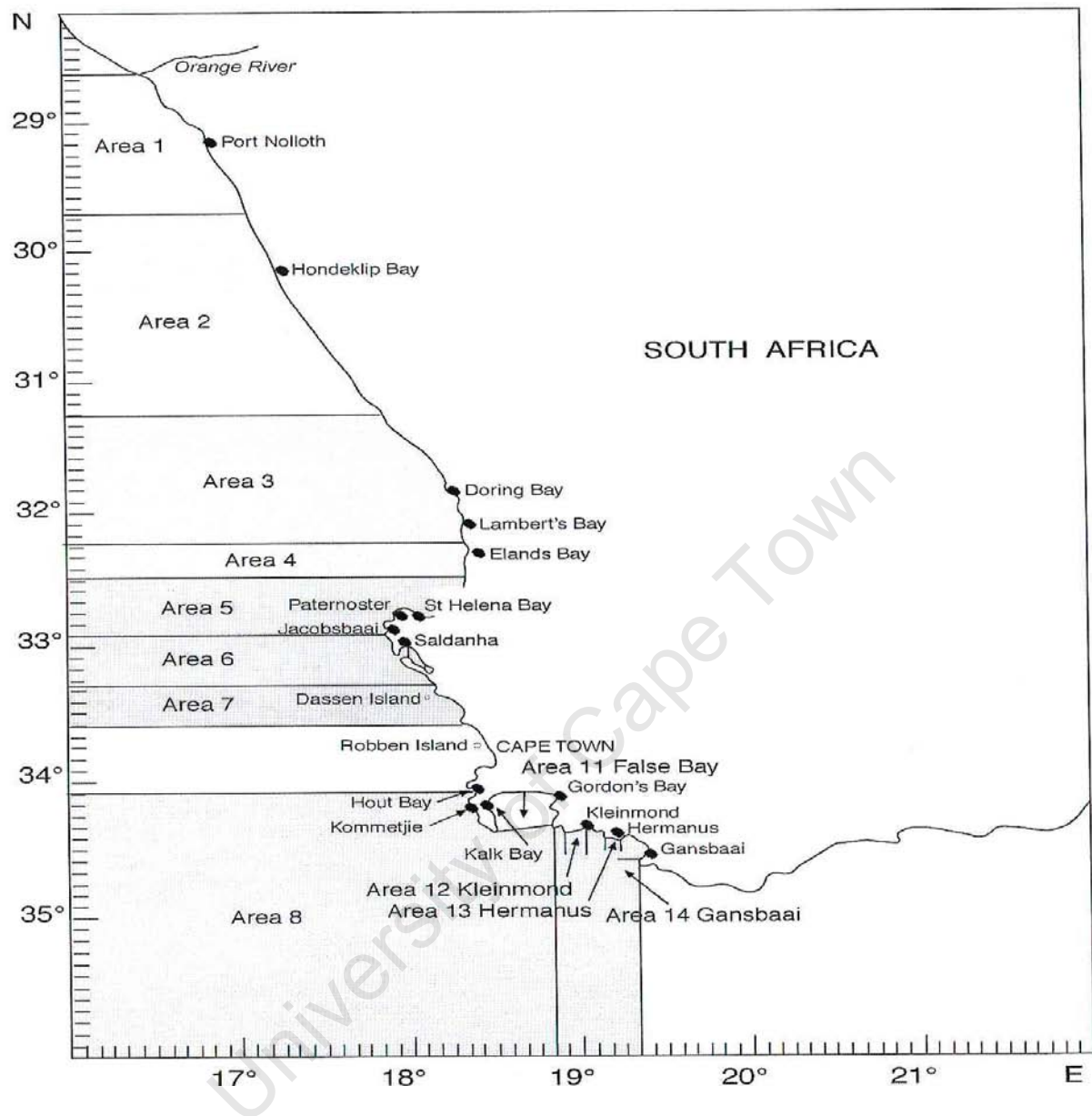


Figure 3.1 Harvesting areas for near shore WCRL on the West Coast, South Africa, Source: DEAT 2008.

All IRMs permit holders were also allowed to harvest a cumulative total of not more than 30 line fish per day in any combinations of the following species (yellowtail, snoek and cape bream (Hottentot) (DEAT 2008). However, in the event that snoek or yellowtail was “running”¹⁴ and only in that event, the fishers could land either 30 snoek or 30 yellowtail and no other line fish. They were also permitted to harvest 50 White mussels per day between the

¹⁴ The term “running” is used in marine science to describe a group of similar species (mainly fish) that had assembled for breeding or migration purposes.

15th of November 2008 to 30 June 2009. Fishers from Ocean View were only permitted to harvest line fish within the existing Traditional line fish boundaries shown in Figure 2.2 below.

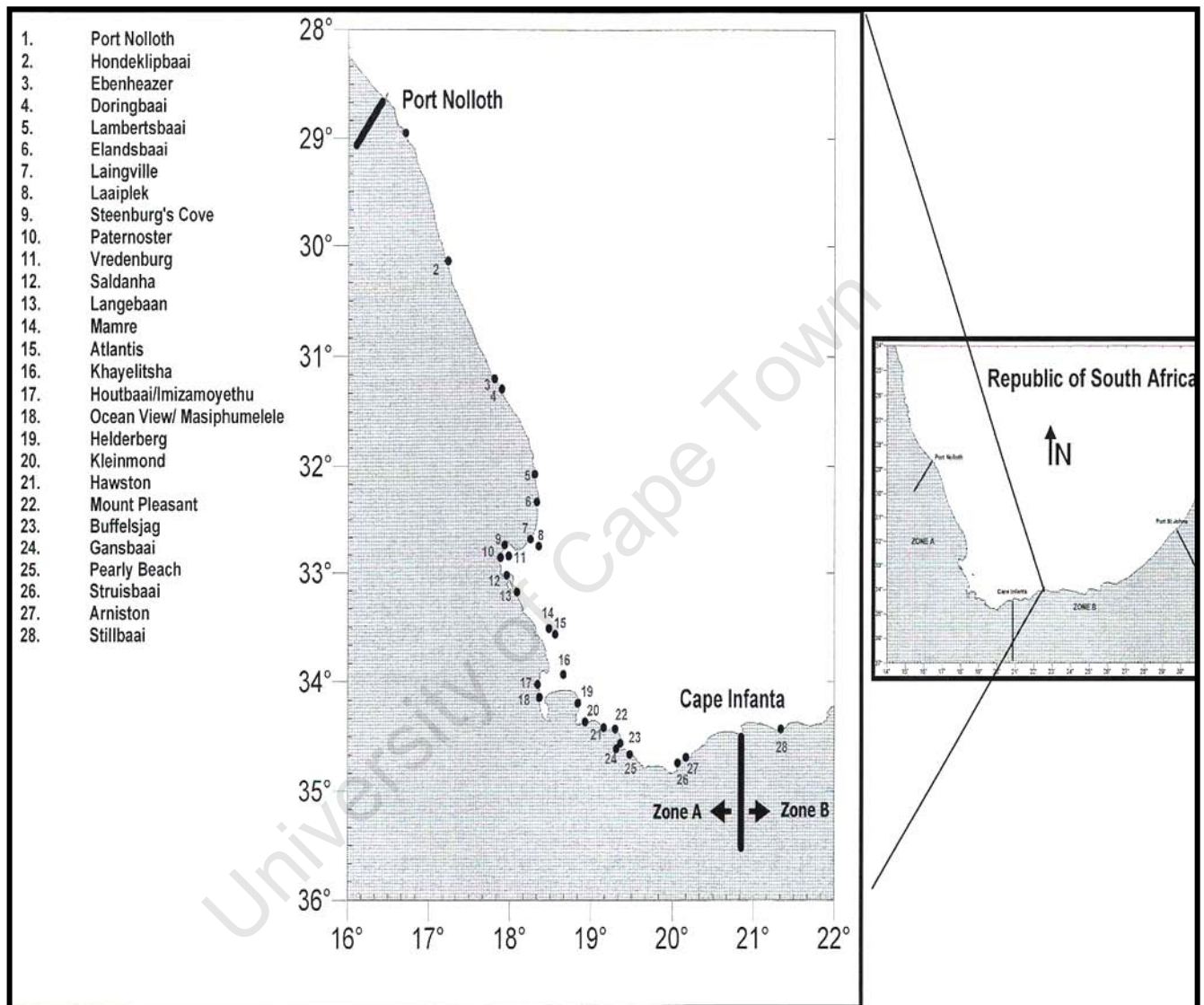


Figure 3.2 Traditional Line Fishing Boundaries on the West Coast, South Africa. Source: DEAT 2008

In summary, the section discussed the domestic frameworks managing SSFs and the introduction of IRMs in South Africa while a new small-scale fishery policy is formulated. The frameworks highlighted how SSFs are managed in South Africa and how the current policies have failed to adequately address the needs of small-scale fishers.

CHAPTER 4: FINDINGS

Introduction

The findings presented in this chapter are based on an analysis of qualitative and quantitative data collected in the field between 12/05/2009 and 19/06/2009. The findings focus on the analysis of semi-structured interviews with fishers that have benefitted from the IRMs as well as group discussions and informal discussions with other key informants in Ocean View. As stated in the introduction chapter, the overall aim of this study was to improve the understanding of SSFs systems and investigate the contribution that marine resources make to food security and income of fisher households that have benefitted from IRMs in Ocean View. The study also aimed to investigate the importance of securing access to marine resources as well as assessing the participation of small-scale fishers in decision making.

The findings are presented under four key themes emanating from the study objectives and fieldwork data: (1) Socio-economic characteristics of small-scale fishers; (2) SSFs as a source of food security and income, and livelihood strategies used by fishers (3) Fishers perceptions of IRMs; and (4) Fisher perceptions of the management of resources.

4.1 Socio-economic characteristics of fishers

4.1.1 Fisher household profiles

In this section, the socio-economic profile of the 20 fishers' interviewed in Ocean View is presented. This information is crucial to understanding household fish consumption patterns, catch sales and fishing intensities as well as constraints to relying on IRMs. Based on this profile, a good understanding of the IRMs beneficiary fisher households was obtained regarding their socio-economic status. Household size and number of members involved in fishing were recorded because the composition, size and actual number of members involved in fishing can influence the amount of fish and fish products consumed as well as the amount of catch sold. Table 4.1 on the next page, shows that 17 of the respondents were male fishers, while three were women. The age of interviewed fishers ranges from 23-61 years. Eleven interviewees were older than 50 years and nine were less than 50 years of age. The oldest fisher was a female fisher who was 61 years old. When fishers were asked how long they had been involved in SSFs, more than 14 of the fishers indicated that they had been fishing for more than 20 years with seven of the senior fishers stating that they had been fishing for more than 35 years. One of the senior fishers, a woman fisher, indicated that she had been fishing for more than 43 years, whilst the youngest fisher in the sample population had been fishing

for 7 years (see Table 4.1). Most fishers asserted that fishing had been an important aspect of their childhood. They emphasised that they started fishing at an early age and did nothing else expect fishing.

Table 4.1 Selected profile features of the fishers and their households

<i>Fishers</i>	<i>Household number (Average 2)</i>	<i>Gender M=85% F=15%</i>	<i>Fishers Age (Average 47)</i>	<i>Years Fishing (Average 26)</i>	<i>Fishing equipment owned</i>	<i>Fishing Effort (Days/ week) (Average 3)</i>
1	1	F	38	20	Hand line + reel	2
2	3	M	23	7	Hand line + reel	3
3	3	M	37	14	Hand line + reel	5
4	2	M	46	12	Hand line + reel	2
5	3	M	42	12	Hand line + reel	4
6	2	M	40	23	Hand line + reel	3
7	2	M	56	40	Hand line + reel	4
8	2	M	53	30	Fishing Boat	3
9	2	M	56	38	Hand line + reel	3
10	4	M	56	40	Hand line + reel	3
11	3	M	39	20	Hand line + reel	2
12	1	M	48	33	Hand line + reel	4
13	2	M	55	40	Fishing Boat	3
14	2	M	59	35	Hand line + reel	3
15	2	F	61	43	Hand line + reel	3
16	1	M	42	17	Hand line + reel	3
17	2	M	57	38	Hand line + reel	2
18	1	F	53	37	Hand line + reel	4
19	4	M	41	11	Hand line + reel	2
20	1	M	46	23	Hand line + reel	3

Household size varied between one and four members per household, with an average of two members per household. The majority of the households consisted of couples or fishers living

with their mothers or a grandparent. The majority of fishers indicated that they had children but they were no longer dependents as they cared for their own families and lived in other areas. Five fishers lived by themselves, three of whom were female. Only two households had more than three household members, which consisted mainly of a husband, wife and a child. All households interviewed had only one member involved in fishing. It should be noted that the number of permit holders per household was not restricted by permit conditions.

4.1.2 Historical involvement in fishing

“Visvang is in my blood” (Fishing is in my blood)-Fisher 18

In order to understand the importance of small-scale fishing, fishers were asked to give reasons why they became small-scale fishers. The majority stated that fishing is their passion and that fishing is part of their tradition and culture. As one fisher pointed out, *“I like fishing a lot, because it is my culture and a legacy of my community”*. All 20 fishers stated that their elders, mostly fathers and grandfathers, influenced them to become fishers. They spoke about a feeling they get when they are out at sea and the love they have for the sea that goes beyond the money they could earn from fishing. Fishing is therefore considered to be a satisfying occupation because they earn money by spending time at sea. As one fisher stated, *“I make money while doing what I love”*.

However, from 20 interviews, only two fishers indicated that even though they enjoy fishing, they only became involved in fishing because there were no other employment opportunities available to them. They do not hold any formal qualifications as they left school at a young age to become fishers. They added that in the past, fishing was lucrative and they thought they could earn an income and improve their standard of living. Key informants interviewed explained that fishermen used to be key figures in the Ocean View community and all young men dreamt of becoming fishers but *“today, no one wants to befriend small-scale fishers because they are poor and they always beg for money”* (Key informant 1).

However, all the fishers interviewed stated that they are proud of their long years of involvement in SSFs. Fishers stated that they used to be respected, but today, this is not the case. They emphasized that in the past, even though SSFs were not legally recognised, fishers used to make a decent livelihood from fishing because there were few fishers and their target resources were in abundance. The majority of senior fishers pointed out that there are too

many new entrants who are competing for few resources available thus resulting in limited access to fishing. Despite an increase in the number of new entrants, senior fishers indicated that they are reluctant to encourage their children to take up fishing as the sector could not provide a sustained income any longer.

4.1.3 Fishing equipment used

Of the 20 fishers interviewed, two indicated that they own fishing boats (Table 4.1). The two fishers indicated that they acquired the boats because they had been allocated a small-scale commercial quota in the past but this had not been renewed after 2006. The boats were between five and six meters in length and were motorised with two 40hp engines. The boats could accommodate four to six fishers at a time. However, the majority of the fishers go fishing on other small-scale fishers' boats or rent fishing boats (from recreational fishers or quota holders) between three and five fishers and share the boat rental fee. They complained that renting a boat was an expensive exercise but that they have no choice, as many of them could not afford to buy their own boats. When harvesting WCRL, the boat owner would provide ring nets/traps, bait and pay for other expenses such as fuel. As part the rental fee arrangement between fishers, each fisher is required to pay the boat owner five WCRL from their weekly 20 bag limit. However, the two boat owners interviewed, stressed that it is expensive to maintain the boats because they have to purchase fuel, bait, and pay for a boat license and landing site fees. They asserted that even though they make more money than other fishers, they do not aim to exploit their fellow fishers. As one boat owner elaborated, *"The amount we charge other fishers is not for profit-making, but just to see us through really"* (Fisher 8).

When catching line fish, all fishers have their own fishing gear, which includes a handline plus tackle. However, fishers that do not own boats, rent boats and the boat owner provides bait and covers other boat expenses such as fuel. The rental fee arrangement requires fishers to give half of their catch to the boat owner, which goes toward boat expenses. The majority of fishers do not like this arrangement but they need boats in order to catch their allocation. One fisher expressed his disapproval of the arrangement by pointing out that, *"this permit condition of 30 accumulative line fish is nothing, because we still have to pay half of our catch to the boat owner"*.

4.1.4 Fishing effort

“Weather permitting, I fish daily”-Fisher 6

“It depends if there are boats available”-Fisher 4

The number of fishing days per week depends primarily on weather and sea conditions. Fishers pointed out that during summer months they could go to sea almost daily excluding Sundays and public holidays because under the IRMs conditions, fishing is prohibited on these days. The majority indicated that they could only manage to go to sea on average for three days out of a possible six days per week (Table 4.1). They claimed that fishing during winter months is very unpredictable because of bad weather and rough sea conditions.

Fishers were asked if they are able to catch their weekly limit and all indicated that they were able to fill their weekly limit of 20 WCRL. With regard to the daily allocation of 30 line fish (a combination of two species between yellowtail, snoek and hottentot), they stated that on most fishing days they are able to fill their bag limit but only a combination of snoek and hottentot. However, they were not able to catch other allocated species such as yellowtail (a seasonal species) because it was not available in their fishing areas during most of the permit period. Fishers indicated that they would have preferred a weekly allocation like in the case of WCRL so that when they were not able to fill their bag limit on bad fishing days they could still catch it during good fishing days.

4.2 Small -scale fisheries as a source of food security and income

This section will present information about the contribution of SSFs to food security and income of fisher households. The information is important in understanding and assessing the value of IRMs to food security and income of small-scale fisher households.

4.2.1 Contribution of fish to animal protein intake in households

More than 50% of fishers interviewed indicated that fish contributes on average between 80-90% of meat products eaten at home. The majority of fishers prefer to eat more fish because it is readily available, healthy and much cheaper than other meat products such as chicken, beef or mutton. As one fisher stated, *“I prefer to eat fish most of the time because other meat products are expensive besides fish is healthier, lasts longer and I can prepare it into different dishes”* (Fisher 18). Fishers stated that part of their culture is derived from preparing and eating fish, a culture they wish to preserve. One fisher added that they consume more fish because it makes economic sense to rather consume fish they caught themselves, than buy

other meat products at shops. However, although some have indicated they would like to eat other meat products more often, their income would not permit them to purchase other meat products because of high prices and the distance they have to travel from Ocean View to the reasonably cheaper butcheries in Fish Hoek or Cape Town.

4.2.2 Consumption of fish before and during the permit period

In order to determine the impact made by the introduction of IRMs on food security in fisher households, fishers were asked to provide information on the number of days fish or fish products were consumed before and during the IRMs period. As shown in Figure 4.1 below, the majority of households were consuming fish products on average once a week before they were issued with IRMs permits. Two households were only consuming fish and fish products once or twice a month as explained by one fisher, *“Before I received my permit, I could even stay a month without fish because there was not enough fish to keep for both household consumption and selling from the recreational permit”*. Under the recreational permit, fishers were permitted a bag limit of 10 fish per day for snoek, hottentot and yellowtail. Fishers indicated that under the recreational permit, they sell most of catch to earn an income. In addition, there were not allowed to harvest a cumulative total of 30 fish for either two species, as was the case under the IRMs.

Figure 4.1 Frequency of fish and fish products eaten per week before and during IRMs.

However, during the IRMs period, the consumption of fish and fish products increased significantly and in some households as much as fourfold (Figure 4.1). During the IRMs period, fishers had more fish to harvest enabling them to take more fish home for household consumption. One fisher stated, *“I hardly ate fish before the interim relief permit, but now I can eat fish three times a week”*. Key informants observed that during the IRMs season, many households in Ocean View eat fish daily. They added that many fishers give fish to their neighbours and friends. In addition, the price of fish is much cheaper during the IRMs period hence many households could afford to buy fish.

Of the allocated species, households consumed mostly line fish (snoek and hottentot). They consumed more of these species because there were allocated on a daily basis and for a longer fishing period. They stated that WCRL is caught solely for market purposes and is not consumed at home. The reason for this is due to the small allocation as they stressed that it takes about two and four WCRL to feed most of the household as each household member would consume at least one WCRL. However, one fisher indicated that a portion of all his catches (WCRL included) is reserved for household consumption, as he points out, *“We consume all species I catch because they are a delicacy, highly nutritious and we do not have to pay exorbitant prices at the shops”* (Fisher 8).

4.2.3 Amount of catch consumed in the household in relation to household income

“I take one batch from five batches every other second day of fishing”-Fisher 10

“I take a big portion because I have to give fish to my extended family”-Fisher 17

The amount of the catch consumed in households was investigated in relation to the household income sources. The objective was to determine whether households who depend only on fishing for their income would keep a higher proportion of their own catch compared to households' with other sources of income. However, it should be noted that some fishers indicated that they give fish to their relatives in other parts of Cape Town or to their fellow fishers who did not go fishing that particular day. Therefore, not all fish reserved for household consumption is necessarily consumed within the fisher households.

Table 4.2 below displays the breakdown of the average amount of fish consumed for each species between households with other sources of income and those without. Except for one respondent that had an alternative source of income, all fishers indicated that they sold their WCRL catch. With regard to snoek, households with other sources of income consumed an

average of 30% of their catch whilst an average of 27% of hottentot was consumed. The figures are relatively low in households without other sources income as they only consumed an average of 21% of their snoek catch. For hottentot, the amount is relatively similar with an average of 25% consumed. However, in households without other sources of income, the amount of hottentot consumed is higher than snoek which is not the case in the other category of households. Fishers pointed out that the amount is slightly higher than snoek because hottentot is much less in monetary value than snoek, readily available and it can be caught throughout the season, unlike snoek which is seasonal. They added that the amount of snoek consumed at home is relatively less than hottentot because of size of the fish. Snoek is larger than hottentot, therefore it can be cut into several pieces and be eaten for an average of two days.

Fishers also indicated that in general they do not take fish home everyday but after every second or third fishing day. This enables households to eat fish during bad weather days when the household could not fish. As one fisher emphasised “*I store some of the catch for the next day so that I don't have to worry in case the weather is bad*” (Fisher 2).

Table 4.2 Amount of catch consumed in households with and without other sources of income.

	Amount of the catch consumed (Average %)		
	WCRL	Snoek	Hottentot
Households' with other sources of income ($n=11$)	1	30	27
Households' without other sources of income ($n=9$)	0	21	25

4.2.4 Fishing as the main source of income

“I'm the only bread winner in the house and all my income comes from fishing”—Fisher 9

Table 4.3 shows that nine out of 20 households generate 100% of their total income from fishing, as it is the only source of income in their households. When they are fishing, fishers do ad-hoc jobs such as gardening, plumbing and domestic work to earn an income and sustain their livelihood. Meanwhile, households with other sources of income show that 85% of their total income comes from fishing. This means that other activities only make up 15% of their

cash income. These other income sources included ad hoc construction work, gardening, domestic work and pension and disability grants. One fisher explains, “*I’m living with my mother who adds to the total household income with her social grant*” (Fisher 11). Fishers indicated that they supplement their household income with other activities to sustain their livelihoods. These activities include ad-hoc gardening and construction work when conditions are not conducive for fishing. One of the women interviewed has pointed out that she does domestic work two to three times a week to supplement her fishing income.

Fishers were asked to estimate as a percentage the amount of catch sold for each species. With the exception of one fisher, all fishers indicated that 100% of WCRL is sold. This particular fisher indicated that he owned a fishing boat, hence, he receives more WCRL from the fishers that utilise his boat for harvesting. With respect to line fish caught, households with other sources of income indicated that they sell roughly 70% (9-12 fish from their take home catch of 15 snoek), whilst households without other sources of income sell roughly 80% (12-14 fish) of their catch (Table 4.3). In both types of households, fishers indicated if they catch three or four butches of hottentot, they will sell two and three butches respectively, hence the amount of hottentot sold ranges between 73 and 75%.

Table 4.3 Contribution of fish and fish products to fisher households and average amount of catch sold.

	Average amount of the catch sold			Fishing contribution to household income (%)
	<i>WCRL</i> %	<i>Snoek</i> %	<i>Hottentot</i> %	
Households’ with other sources of income (<i>n=11</i>)	99	70	73	85
Households’ without other sources of income (<i>n=9</i>)	100	79	75	100

This contribution of fishing income to total household income highlights the importance of fishing as a primary source of income for fisher households. It also indicates that households with limited income opportunities chose to sell less percentage of their line fish catch.

4.2.5 Income generation when IRMs not issued

Fishers were asked how they earn an income during the period when no interim relief is provided and how they strategise to sustain their livelihoods. Eleven fishers indicated that they are in possession of seagoing small-scale vessel cards that they utilise to find temporary employment on small-scale commercial boats (see Table 4.4). As one fisher elaborated, *“Sometime I go look for jobs on small commercial vessels, we call it “pan pan”*¹⁵ (Fisher 19). However, they pointed out that it is difficult to find a “site”¹⁶ on these boats because over the years, the number of fishers carrying the cards has increased dramatically. Seven fishers said that they utilise their recreational fishing permits to fish and sell their catch illegally when there are no IRMs. Fishers know it is illegal to sell their catch under the recreational permit conditions but they claimed that it was their only means of survival. Fishers pointed out that their household conditions before IRMs were very difficult and some fishers even resorted to begging on some days. As one fisher pointed out, *“I use my recreational permit to fish and sell even though I’m not legally allowed to do so but I don’t have a choice”* (Fisher 1). Nine fishers indicated that they rely on ad hoc gardening, plastering and plumbing jobs when they could not afford to buy recreational permits or when fishing conditions are not favourable due to bad weather or rough sea conditions. Other fishers indicated that they rely mostly on their wives, mothers or a relative for income. One of the three women fishers indicated that she concentrated mostly on her domestic work to earn an income.

4.2.6 Earnings from catch sales

It is important to note that even though fishers were allocated 20 WCRL per week, except for the two boat owners, the majority interviewed were only able to keep 15 WCRL. According to the arrangement with the boat owners, 5 of their WCRL catch, is the payment towards the expenses of the boat. Furthermore, the income received varied from week to week depending on the weight of the catch and the market price. They claimed that the price per kilogram is solely determined by the processing factories and it fluctuates between R105 and 125 per kg.

¹⁵ “Pan pan” is the term used by fishers to refer to a short period of employment on a small-scale commercial boat.

¹⁶ A site is a place for a fisherman on a small-scale commercial vessel.

The amount of income recorded varied between R450 and 600 per week with the exception of the two boat owners who are able to earn between R 900 and 1200 per week after deducting the boat expenses. Fishers added that they target and sell mostly WCRL because it guarantees them a weekly income. However, this income is only available for the WCRL fishing season which lasts for six months. Meanwhile, line fish is regarded as a daily income supplier. One fisher explained that WCRL is the preferred species because “*the bulk of the income comes from WCRL and I cannot rely on line fish prices, because it fluctuates a lot*” (Fisher 20).

Table 4.4 Income activities of fishers during the IRMs off-season.

Respondent	Work on small-scale commercial vessels	Recreational permit	Odd jobs (gardening, domestic work, plumbing, construction)	State grants (pension, disability)
1		√		
2			√	
3	√			
4		√		√
5		√		
6	√	√	√	
7	√	√	√	
8	√	√	√	√
9	√			
10	√		√	√
11	√		√	√
12		√		
13	√	√		
14	√	√		
15			√	√
16	√			
17			√	
18			√	
19	√			
20				√
Total	11	9	9	6

Fishers pointed out that it was impossible to estimate the average weekly income from snoek and hottentot catch sales because they are caught as a cumulative catch. Hence, some days

they catch more snoek and less hottentot or vice versa. Furthermore, they have an arrangement with the boat owners to give them half of their catches as payment, which leaves them with few fish to divide between selling and household consumption. They indicated that when the market is less competitive with few fishers selling their catches, they could earn between R300 and 400 per day. They explained that on days when the catch consists of more snoek than hottentot, they could earn between R400 and 500. The boat owners earn more with an estimated income of R700 and 800 per day. However, it is important to point out that these daily incomes are repeated on average of two to three days per week. Hence, on a weekly basis, fishers could earn between R1000 and R2000 from line fish catches. This is due to the number of fishing days and the type and quantity of line fish caught. Fishers added that, of the allocated line fish species, they mostly target snoek because it fetches higher market prices than hottentot. Fishers indicated that they could not estimate the earnings from yellowtail catches as they struggled to catch it because it was available when they received their permits in February. The majority said that they do not utilise their white mussel allocation because the species is not economically viable. They added that it is difficult to find a buyer because white mussels are mainly used as bait. Of the 20 fishers interviewed, only one stated that he harvests his white mussel allocation when sea conditions are not good for line fishing.

4.2.7 Usage of income from fishing

“The money is just enough to make it through”-Fisher 16

“I would like to save some but the money is too little, in my opinion is just for day to day survival”- Fisher 10

Fishers pointed out that they could not provide as a percentage the amount of money spent on various household items. Fishers were then asked to list and rank categories of expenditures. With the exception of boat owner households, the ranking below is common in all households participating in the survey. Below is the ranking of expenditure categories;

1. *Food products*
2. *Municipal rates (electricity and water)*
3. *Basic household necessities (non consumable items)*
4. *School fees*
5. *Settling debts*

Fishers stated that, money is spent mostly on buying other food such as bread, milk and other staple foods. This was followed by paying municipal rates and basic household necessities. Of the three women fishers interviewed, two indicated that even though they do not live with their children, they send money for their school fees and clothes. The majority of fishers said that they had accumulated debt before the introduction of IRMs. Hence, they are using some of their earnings in settling debts. However, boat owners pointed out that they spend most of their earnings on servicing the boats, paying the landing site and buying baitfish. They only spend money on other necessities such as other food sources and basic needs after paying their boat expenses. These expenses take precedence, as their boats are their income-generating tool.

4.3 Fishers perceptions of Interim Relief Measures

4.3.1 Perceptions of impact of IRMs on household food security and income

Fishers indicated that IRMs had significantly improved their household food security because they had more fish to consume and they could afford to buy other food sources with the income from catch sales. They added that even though the fishing period was short, it made a huge contribution to their household food security. Fishers indicated that the consumption of fish increased significantly during the IRMs period increasing the intake of protein in fisher households. As reported earlier, the majority of households were consuming fish less than twice fish per week but this increased to between four and five times per week. However, fishers expressed their uncertainty about the future of their household food security when the IRMs period ends. They pointed out that unless a lasting solution is found to ensure the sustained access to the resources, then the improvement of household food security will be only temporary.

Fishers were also asked to indicate whether the income from interim relief catch sales had improved their household financial status and in what way. The majority stated that there had been a significant improvement in their household income levels since the introduction of the interim relief permits. Despite being grateful for the introduction of IRMs, fishers pointed out that the improvement in financial circumstances was only temporary. They expressed their dissatisfaction about the amount of line fish allocated as they claimed they catch similar amounts of fish under the recreational permits. They added that they had accumulated many debts before the IRMs were introduced. This forced them to use their earned income from catch sales to settle the debts. As one fisher explained, *“The permit made a difference only*

from hand to the mouth” (Fisher 20). Fishers also indicated that the availability of boats dictated the number of fishing days, and hence the income derived from fishing. Fishers claimed that there were limited boats and thus fishers were not able to fish everyday because at times they have to alternate for fishing days or compete for boats. In the event of a boat breaking down, owners struggle to fix them on time and hence they lose valuable fishing days. Furthermore, fishers expressed their frustration with some boat owners who are apparently only interested in helping the fishers during the WCRL fishing season between November 2008 and April 2009.

4.3.2 Perceptions of fishers on access to resources

Perceptions of fishers on the issue of access to resources were investigated because one of the objectives of IRMs was to provide access to fishers to harvest marine resource for their own consumption and sell a portion of their catch. All fishers interviewed were small-scale fishers who hold no commercial fishing rights and fish with the interim relief permits. It is important to note that eight fishers have indicated that it was the third time they received an interim relief permit. They received the first permit during the 1999/2000 fishing season, which was then referred to as the subsistence exemption permit. Nine fishers indicated this was the second IRM received as the 2007/2008 permit was extended. Only 3 fishers received interim relief permits for the first time during the 2008/2009 fishing season. However, fishers expressed their dissatisfaction with the late issuing of interim relief permits, which they claimed were only granted in February 2009 while the fishing season opened in November 2008. They claimed that some fishing communities received their permits on time while fishers in Ocean View only received their permits in February 2009. On the issue of interim relief permits, key informants indicated that younger fishers expressed their dissatisfaction for failing to acquire interim relief permits and this created division between younger and senior fishers.

The majority of fishers felt strongly that their access to marine resources had not improved by the introduction of IRM because of the following two reasons:

1. The permits were issued late, which left them with less than two months to catch their WCRL allocation and four months to catch their line fish allocation. The permit only allowed them to harvest some of their targeted species and they felt that there are many other fish species such as Cape

salmon that were not allocated under the IRM permit. Fishers were also restricted to specific fishing areas stipulated under the permit conditions, limiting their access to migratory species such as snoek and yellowtail. As one fisher explained, *“We were restricted to specific zones though our target species such as snoek are migratory”*. They argued that authorities should have not set fishing zones because the permit was temporary.

2. Fishers also expressed their dissatisfaction about the conduct of enforcement agencies. They claimed that their fishing activities were consistently disrupted by enforcement agencies who continuously inspected what they were catching and if they were adhering to permit conditions. Fishers indicated that changes to the 2008/2009 permit conditions were carried out without proper consultations between MCM and the fishers. They elaborated that authorities kept changing permit conditions without consulting fishers first. They accused the following agencies (MCM inspectors, South African Police Service (borderline patrol), Nosipho consultancy¹⁷ and the Cape Town Metropolitan Police) of causing confusion and disrupting their fishing activities. They also stated that these agencies apply different rules and enforcement criteria that are inconsistent.

As stated earlier, fishers expressed their disapproval of the daily bag limit put on line fish instead of a weekly allocation as in the case of WCRL. As one fishers stated, *“the authority gave us a daily limit on line fish and weekly limit on WCRL, this means that if I don't fish I miss out”*. Another fisher added, *“For the amount that was allocated, it did not improve my access at all. How can your access get improved if you are given a daily limit, they forgot about bad weather, they should have given us a weekly limit for line fish also”*. Fishers felt strongly that it was impractical to harvest 30 cumulative different species of line fish on one fishing trip. They gave an example of meeting a snoek “run”. This means that they have to stop fishing after catching 10 or 15 snoek and move to a different fishing spot to fish for other line fish species. Boat owners explained that this is expensive and time wasting.

¹⁷ Nosipho is a consultancy company contracted by MCM to provide services such as management of training programmes, facilitation of public participation processes, social research and socio- economic impact studies as well as human resource management.

However, two fishers felt that their access to marine resources was significantly improved. They pointed out that in the case of WCRL, even though the fishing period was short, the permit did improve their access because they were able to catch a greater amount than under the recreational permit.

4.4 Fisher perceptions on the management of marine resources

Fishers were asked how often they participated in meetings, workshops or any form of decision-making process together with authorities regarding the management of the resources they harvest. The majority of fishers claimed they seldom interact with authorities unless there is a dispute and in most instances, the engagement takes place in the courtroom. Fishers claimed that their inputs are not considered in the final stages of decision-making. Fishers felt that the lack of their involvement in decision-making processes is linked to the authorities lack of respect for fishers. They added that their rights as small-scale fishers are not recognised in the management and decision-making process and that they are under the impression that the authorities do not want to treat them as equal partners. In addition, fishers stated that when they request to meet the authorities, these meetings are cancelled without valid reasons provided. They gave an example of the current IRMs dispensation as a classical example of how the fisheries authority, MCM, deals with small-scale fishers. Participants indicated that there was limited consultation or any other form of communication about the regulations and conditions governing the permits. They added that rules kept changing without fishers being consulted or informed in advance. They claimed that this disrupts their fishing activities.

With regard to the current process to develop a South African Small-scale Fisheries Policy, the majority of fishers indicated that they had not participated in the process as only few representatives attended the workshops on their behalf. The majority expressed dissatisfaction about the lack of communication from MCM on how the policy process is proceeding. However, about six fishers said they have commented on an earlier version of the draft policy through the AFA by submitting a collective comment. They indicated that they had not been informed about the current state of the policy. In addition, the majority of fishers claimed they were illiterate and therefore could not read the document. They accused the authority of a lack of transparency and lack of will to organise meetings and explain the contents of the documents to them in their own languages. However, they added that there are fishers in the community who are knowledgeable about the documents and can inform them

of their contents. Other fishers stated that they are “not bothered” to read the document and make comments because they are under the impression that their comments will not be considered in the final document. There was an overwhelming consensus among fishers that the whole approach to managing marine resources by MCM is against SSFs. This feeling is linked to a belief among fishers that decisions are made without their involvement.

Therefore, fishers recommended that: (1) MCM must improve communication channels by providing defined structures for fishers to participate in regarding decision-making processes; (2) fishers must be consulted regarding rules governing the fishery; and (3) MCM must recognise fishers’ traditional rights to harvest marine resources and respect their long-standing historical association with the sea.

Summary

This chapter presented the fieldwork findings. The data showed a historical involvement of fishers in SSFs as many fishers were in their senior years. The chapter also presented how different households with varying sources of income decide how to utilise their catches for consumption and selling. Finally, the chapter presented findings on fishers’ perceptions about the IRMS and the extent of their involvement in management of resources and participation in decision-making process.

CHAPTER 5: DISCUSSION

Introduction

A key objective of this study was to improve the understanding of SCSs and investigate the contribution that marine resources make to food security and income of fisher households that have benefitted from IRMs in Ocean View. The study also aimed to investigate the importance of having access to marine resources as well as assessing the participation of small-scale fishers in resource management and decision-making. Understanding the socio-economic characteristics of small-scale fishers in Ocean View and contribution of IRMs to household food security and income could inform policies and legislation that are currently being designed for the long-term sustainable management and development of the SSFs in South Africa.

This chapter discusses the findings of the study under the following headings; (1) Characteristics of interim relief permit holders in Ocean View, (2) Contribution of small-scale fisheries to household food security in Ocean View, (3) Evaluation of IRMs in terms of food security indicators/criteria and (4) Implications of findings for management and policy.

5.1 Characteristics of interim relief permit holders in Ocean View

5.1.1 Resource users

Ocean View fishers consider themselves to be traditional fishers characterised by long years of harvesting marine resources along the west coast, South Africa. The education level of fishers is relatively low as the majority of fishers left school at an early age to take up fishing. The study showed that the average age of fishers was 47 years of age, of which the majority were household heads. This finding is consistent with PUFS (2008) that found the average age for household heads in Ocean View at 51 years of age. However, the general average age of estimated 31 years of age, showed that some households had children and youth household members. This number indicated the level of indirect dependence on SSFs, which could be used in assessing a comprehensive contribution of this fishery sector to the socio-economic needs of communities. This information is also consistent with Berkes *et al.* (2001) when they found that small-scale fishers are characterised by long years in fishing and they do not necessary shift to commercial sector but rather remain in SSFs all their fishing years.

The interviewed Ocean View fishers are characterised by different socio-economic backgrounds. Some fishers had formal jobs before becoming small-scale fishers whilst the

majority of fishers have been small-scale fishers all their lives. The economic status of fishers differed amongst the group depending on their socio-economic background as some fishers were found to be living in formal housing with basic needs such as running water and electricity as well as municipal services such as waste removals. Other fishers were living in informal settlements in Ocean View but with access to basic needs such as water and electricity. The income level of fishers is relatively low as fishers estimated an income of between R1500 and 3000 from recreational fishing permits and other sources of income such as working on small-scale commercial boats and ad-hoc jobs. This level of income is less than PUFS (2008) findings of an average household income of R4 477.68 in Ocean View in general households. Therefore these fishers earn less than the average household income in Ocean View. Income levels were much higher during the IRMs period as fishers could earn between R4500-7000 during both the WCRL and line fish harvesting period.

The demographic picture from the study showed that fisher households were characterised by an average of two persons per household. This figure is less than the four to five persons per household found by the SFTG study as reported by Branch *et al.* (2002) on the west coast between 2001 and 2002. However, this was an average figure for the entire west coast and the number could have been high because of the inclusion of rural coastal fishing communities that are characterised by high household members (Harris *et al.* 2002). The figure found in this study is consistent with Masifundise's (2007) findings on the average household size of two to three persons per household (interim relief beneficiary households) along the west coast. The figure is slightly less than what PUFS (2008) reported in their Urban Food Security Baseline Household Survey in Ocean View which was between four and five members (PUFS 2008). However, PUFS household survey included both small-scale fisher and other households, which could be the reason why their figures were higher. The smaller household sizes could be also attributed to the fact that many of the fishers are in their senior years and their children are adults who lives elsewhere with their families. The size of the households is important for management and decision-making because it gives an indication of the number of people dependant on SSFs. This will assist MCM, provincial and local government as well as NGO's determine the amount of resources required by fisher households to survive and their needs when IRMS are not available.

5.1.2 Historical involvement

Fishers interviewed have been harvesting resources for approximately 26 years. However, despite their long involvement in the fishing sector, the fact that they do not hold fishing rights and that their rights are not recognised in the current fisheries policies, is a huge issue of concern to these fishers. This finding is consistent with Isaacs' (2006) findings where she reported that many *bona fide* fishers had been excluded from the redistribution and allocation of fishing rights process since 1994. This statistic is interesting in that there were no junior small-scale fishers fishing with interim relief permits in Ocean View. Senior fishers stated that the majority of junior fishers do not want to take up small-scale fishing because the fishery cannot provide a sustained income due to difficulties in accessing fishing rights. The reluctance of fishers to let their children follow their example and become fishers is due to their concerns that SSFs are no longer lucrative and cannot provide a sustained livelihood because of inequitable rights to marine resources (Witbooi 2006). Moreover, these younger fishers are turning to other livelihood alternatives such as employment in the commercial industry or other trades. The senior fishers were also partially relying on fishing as their main income generating activity because they could not secure employment in other sectors, as many are too old and have little formal education. This is a worrying trend to the SSFs sector as the indication of less junior fishers joining is a sign that the fishery might fade out in the future. However, Branch *et al.* (2002) reported that many species targeted by fishers are declining and they could not support the number of resource users. Therefore, alternative livelihoods besides fishing could assist in reducing pressure on the resources.

It emerged from these findings that current policies have failed to provide fishers with adequate access to marine resources resulting in fishers believing that the fishery is no longer a variable economic activity. This had also created a wrong impression of the sector by junior fishers who are believed to be losing interest in becoming small-scale fishers. These issues have serious implications for cultural dependence of fishing communities which could result into fishers giving up their historical association with the sea and lose their source of food and livelihood. Therefore, policies need to restore the trust of these fishers into the sector and provide secured access on marine resources.

Moreover, this long history of marine resource use had been part of culture on the west coast of South Africa where fishing had been practiced for over three generations (Branch *et al.* 2002, Isaacs 2003, Sowman 2006). These findings are consistent with Béné *et al.*'s (2008)

research that indicates that SSFs have a long involvement in fishing which is often passed down from generation to generation. The cultural context of these fishers is important to understand and take into consideration when allocating rights because traditional fishing rights could be considered as human rights (Salas *et al.* 2007).

5.1.3 Resource dependence

The study showed that there is a high dependence on marine resources by fishers, which could be attributed to a long history of marine resource use by their fathers and grandfathers. Furthermore, fishers are mainly dependent on marine resources because there is no available agricultural land as Ocean View is in a metropolitan area. Their location in an urban area of Cape Town meant that they are part of a cash economy and sold most of their catch for money. This is confirmed by Charles (2002, 2006) who claims that the dependence of small-scale fishers on marine resources is high in areas where fishing is the main source of income available and there are few other economic opportunities. In addition, some fishers working in the formal industry will enter the SSFs sector if they lose their formal jobs in other sectors such as fish processing factories and manufacturing. The SSFs sector is therefore seen as an immediate alternative source of income because it does not require any qualification or specialised training. This indicates that SSFs are an important buffer that balances shifts in household food security and income of fishing communities (Berkes *et al.* 2001).

5.1.4 Nature of fishing

With regard to the type of fishing equipment used, it is argued that the most important defining characteristics of SSFs are the type of equipment they use for fishing (Berkes *et al.* 2001, Staples *et al.* 2004). In this regard, the Ocean View fishers are typical of small-scale fishers worldwide (refer to Table 2.1). For instance, because they use relatively low mechanised boats they could only operate inshore, clearly indicating that fishers are involved in low-scale harvesting activities. Although the majority of interviewed fishers have been involved in SSFs for a long period, they had not accumulated enough money to afford their own fishing boats. This is an indication that these fishers do not make enough money to become wealthy fishers or move into the commercial industry. The finding is consistent with Béné *et al.*'s (2008) research that small-scale fishers do not grow to make enough profit to become wealthy as the money generated from fishing is mainly used for day-to-day expenses.

Concerning the fishing effort of the fishers, the findings showed that effort is influenced mainly by two main factors: bad weather and sea conditions, and the availability of boats. The IRMs conditions failed to cater for the external factors that affect fisher's ability to harvest on all days. This has resulted in fishers missing the potential income and food security on days not fishing. Another contributing factor determining fishing effort was the shortage of boats in Ocean View. Owning a boat is very important to a fisher in terms of flexibility in choosing fishing times and days. This point is emphasised by Béné *et al.* (2003) who stressed that fishers with appropriate boats and fishing gear have control over the number of days they fish and can travel to favourable fishing grounds. The fishing effort of small-scale fishers is crucial to management in terms of setting conditions on fishing effort and allocating resources. It was evident that the majority of interviewed fishers could not afford to purchase fishing boats due to their limited earnings from fishing. The ability of fishers to move from a subsistence and small-scale fisheries sector to the commercial sector thus remains constrained.

This information is important in understanding the characteristics and defining Ocean View small-scale fishers which are typical of other small-scale fishers elsewhere in South Africa and beyond (Berkes *et al.* 2001, McGoodwin 2001, SFTG 200, Branch *et al.* 2002, Harris *et al.* 2002, Béné *et al.* 2003, 2009, Sowman 2006). The size of fishing equipments used, fishing efforts and the socio-economic characteristics or relatively low income of Ocean View fishers is similar to many other fishing communities in South Africa and elsewhere in the world (Béné *et al.* 2003, 2006, Sowman 2006).

5.2 Contribution of small-scale fisheries to household food security in Ocean View

5.2.1 Fish as a source of food

In order to enhance the understanding of the contribution of SSFs, to food supply and its links to household food security, the study analysed the portion of catch that is consumed at home (as opposed to the amount sold). This comparison was made between households with and without other sources of income as it was assumed that households with limited or no other sources of income keep a larger portion of their own catch for household consumption (Béné *et al.* 2003, 2009, Charles 2006, FAO 2006). Results from this study suggest that this may not be entirely true as households without other sources of income were observed to keep a smaller portion of their catch for household consumption compared to households with other income sources. These findings are not inconsistent with the study carried out in the Salonga

area, Lake Chad (2003), where a proportion of fish kept for home consumption is higher for the income poor households than it was for better-off households (Béné *et al.* 2006). One of the most important findings of this study is that the targeted resources were not only food sources but also income sources. Therefore, the relationship may be inverted, as the poorest households may tend to sell a larger portion of their catch to purchase other food sources. Moreover, the proportion of catch kept for household consumption was found to be dependent on the value of species caught. Of the allocated species, hottentot was the lowest value species (because it was more abundant and a less popular eating fish). Households with other sources of income sold more of their hottentot catch compared to households without other sources of income. Because of their alternative income and a relatively more secure household food security status, these households were selective in terms of the type of fish resources they consumed, opting to sell rather than consume less valued species.

However, households without other sources of income consumed more of the lower value income species so that they could not lose potential earnings on the high value species. This finding is confirmed by Gomna and Rana's (2007) research which found that households may choose to keep the low value species for household consumption and sell species that are high in value to earn more income. In addition, these households were not taking into consideration the nutritional needs derived from the consumed fish as they would rather earn more income and lose out on the nutritional needs provided by high value species. However, better-off households were found to sell less of their high value catch compared to households without alternative sources of income.

To understand the impact of introducing IRMs, the study investigated the difference in consumption of fish and food products in general, before and during interim relief. The results from this study clearly indicated that the consumption of fish increased significantly in the fisher households during the interim fishing permit period. The high consumption in fisher households during the IRMs period underscores the vital contribution of fish to the food security of fisher households in Ocean View. The direct contribution of fish to food security in the fisher households was therefore less than before the introduction of IRMs. The increase in consumption of fish was also due to the drop of price of fish during IRMs allowing households to buy fish for consumption when the households are not fishing. This indicated that the dispensation did not only benefit interim permit holders, but other community members who were buying cheaper fish from fishers. The finding highlights the

importance of SSFs (FAO 2005, Staples *et al.* 2004) and suggests that the sector has the advantage of providing more direct and affordable fish products to poorer population groups than industrialized fisheries.

5.2.2 Fish as a source of income

It is reported that SSFs provide livelihoods to millions of fishers and their households, particularly in rural areas where the bulk of the poor live (Charles 2006, FAO 2005). In addition, the SSFs sector is regarded as a pro-poor activity because it is labour-intensive and relatively easy to enter for unskilled people, hence providing livelihoods to a large number of people (Staples *et al.* 2004, Béné *et al.* 2006). In areas where fishing is the main economic activity, the degree of dependence on a cash income can be substantially high (Béné *et al.* 2003, Walmsley *et al.* 2006). The results from this study showed that the majority of households were dependent on fishing as their primary source of income compared to less than 20% of interviewed fishers that generated their income from other sources such as ad hoc construction work, domestic work, gardening and social grants (pension and disability). The income from fishing in these households was on average more than 80% of the total income during the IRMs period. This indicates that income derived from fishing activities is significantly higher than those derived from all other activities combined. In the large majority of cases, however, the contribution of small-scale fisheries to the household economy is much more modest and the income generated may just be sufficient to maintain the household at their current standard of living. This finding is consistent with Béné *et al.* (2003) findings in the Lake Chad fishing communities where they found that income from fishing was considerably higher than that derived from other activities combined.

With regard to income from fishing, Béné *et al.* (2008) stressed that the most important indirect contributions of SSFs to food security is the usage of income from fishing to buy other food sources and needs necessary to ensure household food security. The result showed that the majority of households, with the exception of boat owners ranked food products as the main category on which income from catch sales is spent. This highlights the importance of SSFs to food security of fisher households as the money generated from fishing was used to provide for other food needs of the household. The findings are consistent with the SFTG 2000 report, which indicated that fisher households in South Africa spend between 66% and 89% of their fishing income on household food sources. In addition, PUFS (2008) showed

that out of 277 households surveyed, 270 had food as the highest expenditure. Households also spent a significant amount on servicing debts and medical expenses.

5.3 Evaluation of IRMs in terms of food security indicators/criteria

5.3.1 Introduction

According to Ruel *et al.* (1999), FAO (2002) and PUFS (2008), household food security is determined by assessing the household's access to food that is affordable, culturally appropriate, adequate in terms of quantity and quality, and furthermore, must not be at risk of losing such access. The IRMs were intended to assist traditional fishers gain access to marine resources and address food security within fisher households while the new small-scale fisheries policy was being developed. Although the measures were regarded as temporary, the contribution to food security was important to fishers who had no secure access to resources. This section evaluates the contribution of IRMs to food insecurity in Ocean View by considering the following indicators that are used to evaluate food security more generally namely; stability of supply, availability of food, and access to supplies in fisher households.

5.3.2 Stability of food supply

In terms of food security, access to marine resources is important in ensuring stability of food supply to the household. The lack of secured access to resources outside IRMs among the fisher households will compromise the stability food supply as Cunningham (2005) stressed that for a household to be food secure, it should have access to adequate food at all times. She added that food secure households should not be at risk of losing access to food, which should be acquired in socially acceptable ways without resorting to emergency food supplies or stealing. Therefore, secured access to marine resources is essential in ensuring that households have stability of food supply that adequately meets their food security needs. The review of literature and fieldwork findings showed that the majority of small-scale fishers in South Africa do not have a secured access to marine resources. With regard to IRMs, fishers had a limited period of fishing resulting in uncertainty about future food sources after interim relief period has ended.

Although, initially it was anticipated that the new Small-scale Fisheries Policy would be published in June 2009 and would replace the interim relief permits, this policy is yet to be finalised. Therefore, the delay in introducing a new policy will continue to threaten the

stability of food supply of small-scale fishers living in Ocean View who will continue fishing under these uncertain conditions associated with the IRMs.

5.3.3 Availability of food

According to Ruel *et al.* (1999), food availability requires that households have a supply of appropriate food that should provide for their overall consumption and nutritional needs in terms of quantity and quality. In terms of quality of food available, the study discussed fish contribution to meat protein intake in the households. The high levels of fish consumption during the IRMs period are likely to persist for two reasons: (1) there is a strong tradition of eating fish in coastal towns along the west coast of South Africa, and (2) the economic status of fisher households made it difficult to access other sources of protein such as meat such as beef. Branch *et al.* (2002) and Isaacs (2006) argued that high consumption of fish in west coast households could be attributed to the fact that fish harvesting and eating is regarded as part of culture amongst fishing households.

However, the 15 WCRL that fishers retain after paying the boat owners is not enough to divide between household consumption and selling. This was revealed by the fact that although fishers wanted to consume their WCRL catch it was not enough to take home a portion because allocation does not meet their household needs. The failure to allow fishers to catch a weekly catch of line fish also limited the availability of resources for the fishers. In addition, the costs involved in renting the boats for fishing as limited the availability of food sources as fishers could not afford to pay the boat fees. With regard to the type of resources consumed, fishers could not harvest all their targeted species as they indicated that certain species were not allocated under the IRMs. The failure to allocate fishers with species that they consume and target is a threat to ensuring availability of food that meets the quantity and quality of fisher household needs.

5.3.4 Access to supplies

According to FAO (2006), household access to supplies, entails an adequate supply of food that is sufficient and accessible to the household. The study findings showed that fishers could not access certain species that were allocated under the IRMs such as yellowtail. This clearly indicated that households had limited access to supplies of fish although they had the rights to harvest them. This shows that MCM failed to carried out a proper analysis of the types of species available to fishers in their designated fishing areas. The timing of issuing

permits also contributed to the fishers failing to access the supply of yellowtail as the permits were issued late in February 2009 to Ocean View fishers resulting in them missing the yellowtail season in summer months of October to March 2009 (AFA 2008). Ocean View fishers also had a limited fishing period of WCRL from February to April 2009 hence missing out on the first three months due to late issuing of permits. The shortage of boats during IRMs also affected negatively the household access to supplies as fishers could not harvest their allocation. This is consistent with Masifundise's (2007) findings on the review of the first interim relief measures issued in 2007. Béné *et al.* (2003) stressed that fishers with boats have an advantage of having more access to supplies of resources because they can decide the fishing period and fish in favourable areas. Therefore, the majority of Ocean View fishers had limited access to supplies because of these given constraints. This compromised the household supplies to marine resources and loss of potential income from yellowtail catch.

5.4 Implications of findings for management and policy development

5.4.1 Implications for long-term sustainability

The introduction of interim relief measures can be viewed as recognition by DEAT that the current dispensation does not cater for the needs of small-scale fishers. Whilst the measures were not intended for the long term, they sought to address the immediate needs of traditional small-scale fishers while a new policy is being developed. However, the delay in finalising the new Small-scale Fisheries Policy may result in endless extensions of IRMs with negative consequences for fisher livelihoods and harvested resources. The ongoing extension of IRMs may lead to an unsustainable fishery because of overharvesting as well as the limited enforcement during IRMs and absence of an appropriate management. The IRMs were issued without adequate scientific input or clear regulations in terms catch monitoring or clear enforcement protocols. Ad hoc extension of IRMs may place excessive pressure on the marine resources that are already overexploited.

The FAO (2005) stressed that the sustainable management of marine resources depends on understanding the conditions under which the majority of users live, their constraints as well as the opportunities that they have other than fishing. Therefore, government must link rights to resources to responsibility for sustainable management and invest in capacity building of fishing communities. With regard to fishers in Ocean View, the study showed that more than 80% depend mainly on fishing for their livelihoods. However, because of the lack of

livelihood security and the uncertainty of IRMs, fishers may be discouraged to exercise precautionary conservation measures because of insecure rights to resources (Berkes *et al.* 2001). Berkes (2003) argues that lack of access or unsecured rights to harvest marine resources might encourage small-scale fishers to overfish and not adhere to conservation measures. Although the interviewed fishers were reluctant to indicate the extent of over-harvesting, they acknowledged that overharvesting does exist because the resources allocated are not adequate to meet their needs. Furthermore, they have lost confidence in MCM's ability to find a lasting solution to their need of having secure access to resources. Another factor that might have contributed to over-fishing or illegal fishing was confusion amongst monitoring officers regarding the exact regulations of IRMs due to lack of communication between themselves and MCM officials. This allowed fishers to take advantage of the system and there was no proper enforcement and monitoring in place.

5.4.2 Implications of findings for management and policy

The proposal to accommodate only fishers with historical involvement in SSFs is consistent with domestic policies and legal frameworks because of limited resources and too many resource users (DEAT 2008). However, this may create conflict as young and new entrant fishers who were perhaps indirectly depended on SSFs through the fishing activities of their fathers or grandfathers would feel excluded. The younger fishers, who were not considered in the allocation of IRMs during the 2008/2009 period, may be disadvantaged again when the new small-scale fisheries policy is introduced. Hence is vital that the rights to access marine resources by all resource users must be considered in the new small-scale policy to facilitate empowerment and unity of communities (Isaacs 2008). Although the interim measures were intended for a shorter period, it is vital that they are in line with existing resource management policies and international instruments to facilitate future planning and management of resources in South Africa. Nonetheless, the IRMs highlight the government's intentions to set fisheries policy objectives with the wider economic, social and environmental value of the sector in mind (Allison *et al.* 2006).

With regard to the definition of SSFs, the study found that most of the main points in the definition of SSFs such as relatively low technology used to harvest resources, dependence on resources for food and livelihoods were evident in the Ocean View fishers. These characteristics are important in finding a suitable and comprehensive definition for SSFs in South Africa as well as elsewhere. However, the definition should incorporate the extent to

which SSFs are contributing to fisher livelihoods. This study showed that the benefits from SSFs are shared beyond fisher households as other community members receive and buy cheaper fish from fishers. In addition, it is important to note that a standard definition might not be suitable to all fishing communities as some might depend on SSFs primarily for food sources whilst others for livelihood needs such as income as it was evident in this study. Therefore, ideally the standard definition must be used in relation to the specific needs of the community being studied.

With regard to institutional arrangements, there is a need to foster improved coordination across the various institutions responsible for domestic policies, laws and strategies such as the RDP, NEMA and IFSS that affect the SSFs sector. This coordination needs to take place at national, provincial and local level to improve coordination in terms of allocating resources and improving livelihoods of community members. Sugunan *et al.* (2007) asserted that fisheries policy objectives and processes ideally should be linked more effectively with those of other sectors. The RDP food security framework failed to include fisheries as one of the sectors that could contribute to food security in households particularly in rural fishing communities. This clearly showed that government departments have little knowledge of what is going on outside their departments. This lack of coordination between sectors is contrary to the MDGs that call for wider linkages in data and information exchange beyond the fisheries sector. In addition, the integration of SSFs relevant data to planning processes for instance in the health, housing, tourism and agriculture departments is critical for the full realization of the development potential of this sector. For example, statistics on demography of households from local authorities can guide fishery managers to estimate the needed allocation of marine resources, measure the contributions of all fish to food security and assess the performance of policies and management measures designed to provide the fish required by households. Therefore, government needs to ensure the long-term ecological sustainability of marine resources but at the same time ensure that these objectives are compatible with socio-economic objectives that contribute to fisher livelihoods. In addition, there is a need to create improved networks and well-defined consultation mechanisms between government, NGO's and fishers to find alternative livelihoods when the resources can no longer sustain fisher livelihoods.

With regard to access rights to marine resources in SSFs, The individual rights approach to allocating resources that is currently used in the small-scale commercial and subsistence

sectors in South Africa is not considered suitable for SSFs and it resulted into more problems than solutions (Witbooi 2006). Consequently, MCM needs to explore other kinds of use rights, such as community-based or collective rights in the new policy to avoid further divisions between senior, *bona fide* fishers and other (often youth) that wish to get involved in the fishery. Jentoft (2006) and Sowman (2006) argue that in fishing communities, where there is a history of fishing and some level of homogeneity, a collective rights based approach might be more appropriate to promote cohesiveness and encourage a sense of stewardship over resources. However, organization amongst the fishers is necessary to adopt a community rights approach. Management could then take place at a much smaller scale that might be much more appropriate for small-scale fishers. However, there would need to be involvement and support from MCM with respect to certain management, monitoring and enforcement functions.

There is a plethora of soft law instruments that provide guidance about how SSFs should be managed. Thus the new Small-scale Fisheries Policy needs to be guided by these various international and regional instruments such as the FAO Code of Conduct for Responsible Fisheries, The Millennium Development Goals, The Southern African Development Community (SADC) Protocol on Sustainable Fisheries, The 1995 Kyoto Declaration and Plan of Action on the Sustainable Contribution of Fisheries to Food Security and The 1996 Rome Declaration on World Food Security (RDWFS). The challenge for policy development is to find a balance between these seemingly competing objectives namely; to conserve and protect resources while providing equitable access to resources users.

5.4.3 Lack of fisher involvement in management and decision-making

It is well documented that small-scale fishers worldwide and particularly in South Africa, have been deprived of participating in management of resources they depend on for their livelihoods (Berkes *et al.* 2001, Hauck *et al.* 2002, Jentoft 2006, Sowman 2006, Hauck 2008). The perceptions of fishers regarding management of resources need to be viewed in the context of the history of fisheries management in South Africa. The past management strategies, characterised by highly centralized, top-down approaches have failed to involve resource users, and poor coastal fishing communities in management decisions.

The findings from this study highlight similar concerns. It emerged from the study that fishers were dissatisfied with MCMs approach to management of SSFs because of a long

history of failing to address the needs of small-scale fishers. Fishers are seldom consulted regarding management decisions by MCM unless there is a dispute to be resolved. The failure of MCM to consult fishers has created a lack of trust between fishers and the management agency. Furthermore, the input from and recommendations of fishers are mostly ignored and are not reflected in management decisions. The failure to include them in management and decision-making could be linked to a lack of understanding of the complexity of their livelihood strategies. These findings support Castilla (1999) and Johnson's (2006) argument that lack of participation in management by small-scale fishers could be due to a shortage of necessary skills amongst government officials to understand the complexities and uniqueness of each fishing community.

Another important finding that emerged from this study is the fact the majority of fishers were illiterate or had little formal education as they left school at an early age to take up fishing. This meant that many fishers were not able to read or comment on various policy documents and management protocols provided by MCM. Furthermore, MCM failed to organize adequate meetings with fishers to explain policy documents or set up communication structures. This in turn exacerbated tensions between fishers and MCM. Hauck *et al.* (2002) reported similar findings in fishing communities on the west and east coasts of South Africa. They found that fishers had trouble in accessing information regarding policies and procedures, understanding the language used and communicating with authorities. The lack of involvement of fishers in management and decision-making is contrary to a number of international instruments and domestic legal frameworks. For instance, the importance of fisher involvement in management of resources is highlighted in the FAO Code of Conduct for Responsible Fisheries, Article 6.13, which calls for "*effective participation of fish workers and others....in decision making with respect to the development of laws and policies related to fisheries management, development, international lending and aid*". The need to include resource users in the management of resources they depend on is also highlighted in the food sovereignty concept which calls for the rights of resource users to define their own policies and strategies for the sustainable production, distribution, and consumption of food with respect to their own cultures (FAO 2006, Gobena *et al.* 2009).

The lack of fisher participation in the decision-making process is also contrary to the human rights principle of participation highlighted in various international instruments relevant to SSFs as well as the principles underpinning the food sovereignty concept that requires that

everyone has the right to be actively involved in decisions that affect them (Gobena *et al.* 2009). Incorporation of the food sovereignty concept in policies and management protocols is vital in ensuring the recognition of fisher rights to access marine resources as it requires that fisheries legislation should provide mechanisms for engaging, as much as possible, local fishing communities and other stakeholders in the formulation and implementation of policies and management measures impacting the livelihoods of these communities.

In South Africa's domestic legal framework relevant to resource management, Section 2 of NEMA clearly states that the relevant authority must ensure equitable participation of interested and affected parties in environmental governance, openness and transparency in decision-making and access to information. The involvement of resource users in decision-making is thus a legal requirement and MCM must engage with SSFs fishers. Furthermore, as highlighted by various authors (McGoodwin 2001, Berkes 2003, Jentoft 2006, UNESCO 2007) small-scale fisher knowledge is often the only available knowledge, which is also a low cost resource base as opposed conventional biological science. Thus involving SSFs can enhance understanding of the fishery and contribute positively to management and decision-making. Other benefits of involving small-scale fishers in management and decision-making could also improve compliance of fishers (Harris *et al.* 2002, Van Sittert *et al.* 2006, Hauck *et al.* 2008). For instance, Harris *et al.* (2002) reported that high levels of compliance in the management of resources in St. Lucia, South Africa was a result of direct participation of resource users.

Participation of resource users in management is also important during research as the use of fishers' knowledge not only serves the purpose of strengthening the knowledge base and improving management but it is also serves as an important aspect of management as it improves relationships between fishers and governmental researchers and managers and thereby facilitates that fishers buy into the management system (Haggan *et al.* 2007).

5.4.4 Compliance with soft law instruments and national legislation relevant to small-scale fisheries

Issues concerning access rights to marine resources, redistribution of resources and developing appropriate management systems continue to hinder the management of the SSFs sector in South Africa (Sowman 2006, Witbooi 2006). Although a number of issues are satisfactorily addressed by the current legal frameworks, there is a lack of implementation of

these policies and legal provisions. Furthermore, there are a number of key matters that have not been adequately addressed which have resulted in the present unsatisfactory management status of this sector (Sowman 2006, Witbooi 2006, Isaacs 2008). Despite South Africa's commitment to a number of international and regional protocols concerning fisheries management and food security, it has failed to comply with certain duties imposed by these various international and regional instruments such as the SADC Fisheries Protocol. One particular obligation imposed by the Protocol is the incorporation of artisanal fisheries and small-scale fisheries into domestic policies. This would require the amendment of the MLRA that currently only recognizes a "subsistence fishery". In addition, the MLRA has also failed to address the need to provide fishing communities with the necessary mechanisms and skills to pursue economic alternatives outside fisheries. This is crucial in a situation where fishing cannot provide food and livelihoods to fishers any longer. It emerged from the literature review that many of the SFTG (2000) institutional and management recommendations of 2000 have not been implemented. One of these recommendations was that subsistence fisheries management units SSFs be established in all coastal provinces, and that local management structures are likewise set up (SFTG 2000). These units should facilitate the development of sector, capacity building of fishers and skills development so enable fishers to participate in other sectors when the resources can no longer sustain their livelihoods. It is therefore necessary for the government to initiate a range of institutional changes and put in place mechanisms to support the development of the SSFs sector. This would require changes to existing administrative and legislative arrangements to ensure the overall achievement of providing livelihoods to fishers and enhancing food security.

Moreover, the institutional capacity within MCM needs to be significantly improved by creating a specific division that deals with socio-economic development of small-scale fishers. Equally, the obligation to ensure food security and sustainable livelihoods and poverty reduction in fishing communities must not be left entirely to government. Provincial and local governments, NGOs as well as the private sector have a role to play in this task. Involvement of these stakeholders will promote democratization and sustainability in its broadest sense (Berkes *et al.* 2001, Staples *et al.* 2004). SSFs

CHAPTER 6: CONCLUSION

This study focused on the extent to which the government's Interim Relief Measures in the small-scale fisheries sector contributed to food security and income in Ocean View in the Western Cape. It provided information on the general characteristics and nature of SSFs worldwide as well as in South Africa. The literature relevant to food security was also reviewed and concepts from this literature were used to assess the contribution of IRMs to food security in Ocean View. The study further explored various international and regional instruments guiding the management of SSFs and investigated the extent to which these principles and provisions are reflected in national legal frameworks in South Africa. The study provided information on the socio-economic characteristics of small-scale fishers that received interim relief permits in Ocean View in the Western Cape, South Africa. It further investigated the contribution of SSFs to fisher household food security and income. The study then went on to document and discuss the perceptions of fishers in Ocean View with respect to their participation in resource management and decision-making as well as the importance of securing access rights to harvest marine resources.

The findings from the study were found to be consistent with other work that reported on the importance of SSFs to fisher household food security and income (Berkes *et al.* 2001, Charles 2002, 2006, Staples *et al.* 2004, Béné *et al.* 2009). The Ocean View study confirmed the importance of SSFs to food security by providing protein rich food, in particular to households without alternative livelihoods who appear to rely on a larger share of their catch to fulfil their food needs than better-off households do. However, the income level of the households was found to play a determining factor in terms of what species are consumed at home. Hence, it can be concluded that poorer households consumed more of the less valuable species as they sell more of their valuable catches to earn an income to purchase other food items. Furthermore, the IRMs dispensation did not only benefit interim permit holders, but other community members who were now able to buy cheaper fish from fishers. The findings highlight the importance of SSFs (FAO 2005, Staples *et al.* 2004) and suggest that the sector has the advantage of providing more direct and affordable fish products to poorer population groups than industrialized fisheries.

Another important result from the study is the fact that fishing appears to be the primary source of income for the majority of households for both households with and without other alternatives livelihoods. Although some positive results can be highlighted which confirm

that small-scale fisheries play an important role with respect to cultural importance of fishing to Ocean View fishers, food security and livelihood. Therefore, it is important for management to understand and recognise the cultural context of fishers when allocating resources and recognise the traditional rights of these fishers to harvest marine resources.

In addition, because of the complexity of these small-scale fishery systems and the difficulty of assessing the extent of food insecurity in these communities, it is difficult to devise a single method for assessing SSFs contribution to fisher household food security and income (Béné *et al.* 2006). The lack of appropriate and reliable catch data made it difficult to assess the real contribution of SSFs to fisher household food security and livelihoods as some fishers were overfishing as there was a lack appropriate enforcement regulations. In addition, lack of secured access to resources contributed to overfishing as fishers were uncertain about their future when the IRMs season comes to an end.

The study further found that the fishers lack the necessary skills, capacity and cohesive social institutions to exercise their rights, self-organise, articulate their demands, negotiate with government officials and carry out their responsibilities. Therefore, there is a need for organisational and social development in order to enable fishers to participate effectively as partners with government in fisheries management. In addition, a better understanding of the complexity of the SSFs livelihoods is required amongst government authorities responsible for fisheries management. This entails the inclusion of social and economic profiles and assessments of fishers so that this information can inform management and decision-making processes. Small-scale fishers have little formal education and this would make it difficult for them to engage in other livelihood strategies. Therefore, it is important for MCM, NGO's and other relevant stakeholders to take into consideration these special needs when considering alternative livelihoods for fishers.

With regard to access to marine resources in SSFs, the government needs to review the allocation of marine resources to the recreational and commercial sectors that may target the same resources as the small-scale sector. MCM needs to determine an appropriate system of allocating user rights and management rights. Charles (2006) and Sowman (2006) argue that under certain conditions, allocation of community access rights and quotas may be more appropriate and lead to more sustainable outcomes as well as poverty reduction in coastal communities. Therefore, it is important for other government sectors to work together with

MCM to improve the socio-economic conditions of fishers. This coordination will assist in determining appropriate alternatives for fishers as marine resources cannot provide food and a livelihood for all those wishing to participate in the fishery. .

The findings of this study will contribute to the new Small-scale Fishery Policy development process that is currently underway in South Africa by providing information about the importance of fish as food and a livelihood source for small-scale fishers. Furthermore, this study will improve our understanding of the value of IRMs as a measure to address food insecurity in coastal fishing communities in South Africa., The study highlighted the responsibility that MCM has of finding a balance between resource utilization and ensuring resource sustainability and meeting socio-economic objectives in poor fishing communities. Moreover, providing fish for food security will require a shift in MCMs approach to resource management from a narrow, top-down technocratic system to a more inclusive and holistic management system. In addition, the conservation of resources must be in line with the socio-economic needs of people who depend on the resources for their livelihoods. This requires that adequate human resources are identified and assigned to manage and monitor sustainable production of coastal fisheries and identify how much of the resources should be allocated for small-scale fishers food security needs.

In conclusion, the study showed that there is a positive indication that IRMs provided to the SSFs sector in Ocean View does contribute to fisher households food and livelihoods as well as an increase in fish consumption in other households However, the manner in which the IRMs are allocated, implemented and monitored, needs to be reviewed to prevent overharvesting of resources. Although IRMs cannot be expected to meet all food and livelihood needs of fisher households, they significantly improved the food security and income situation of fisher households in Ocean View. However, IRMs are not a desirable long-term solution to small-scale fishers needs because of their uncertainty and potential to lead to overharvesting. Hence, a comprehensive policy must be formulated as soon as possible to ensure that poor fishing communities that rely on marine resources for food and livelihoods gain equitable access to and benefit from resources that they have traditionally harvested. .

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APPENDIX

Semi-structured interview questions conducted on small-scale fishers in Ocean View.

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Assessing interim relief measures contribution to food security and income generation for Small-Scale Fishers study: Ocean View, Western Cape.

Thank you very much for taking the time to meet with me today.

I would like to talk to you about your involvement in the fishing sector in this community as well as your participation in the Interim Relief Measures. One of the objectives of this proposed study is to assess the contributions made by the introduction of “interim relief measures” to small-scale fishers and how they have impacted on their household’s food security and income.

The interview should take less than 30 minutes. I will be taking some notes during the session. All your responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Moreover, you

do not have to talk about anything you do not want to and you may end the interview at any time.

Do you have any questions about what I have just explained?

Are you willing to participate in this interview?

Interviewee

Date

Interview number:

1. Personal, historical and dependence information

1.1 How old are you?

How many years have you been involved in fishing activities?

How many people live in the household?

How many household members are involved in the actual fishing? (gender and number)

Why did you get involved in fishing?

Where do you mainly catch fish? Do you fish in other places?

What fishing gear do you use for each species?

Do you have your own fishing equipments, rent or share with other fishermen?

On a weekly basis, how many days you spend fishing?

2. Food Security Information

What percentage fish and other marine resources harvested contributing to meat products eaten at home.

How often is fish or other fishery products eaten in the house per week **before** and **after** interim reliefs?

Of the allocated species, which one does the household mainly consume and why?

What percentage of the catch is consumed at home? Indicate species and percentage
When the household is not fishing how does it obtain fish and other marine resources products?

3. Income generation information

How much is fishing contributing to the household total income? Estimate in percentages
Of the allocated species, which ones you sell mostly and why?
What percentage of your weekly catch you sell? Indicate species
How much money you receive from your catch sales per week (species, amount and value)

WCLR

Snoek

Hottentot

What do you do with the returns from catch sales? Rank the level of expenses in terms of expenditure.
Does the household have other sources of income? Specify
When the interim relief measures season ends, how do you earn an income?
Have you noticed any positive change in your household income after receiving the interim relief permit?

4. Interim Relief Measures Information

How many times have you received the interim relief permit?
When did you receive your interim relief measures permit?
Are you able to catch your weekly bag limit for all allocated species?
Do you think the allocated species have positively improved your access to marine resources?
Do you participate in decision making regarding the management of the resources you are targeting?
Have you participated in the drafting of a new small-scale fisheries policy? Were your inputs included in the draft policy document?
Do you have any suggestions or comments you want to make?