

DEFINING FISHERS IN THE SOUTH AFRICAN CONTEXT: SUBSISTENCE, ARTISANAL AND SMALL-SCALE COMMERCIAL SECTORS*G. M. BRANCH*¹, *M. HAUCK*², *N. SIQWANA-NDULO*³ and *A. H. DYE*⁴

Evolution of a new policy for the management of marine fisheries in South Africa led to the Marine Living Resources Act of 1998 (MLRA). Among other innovations, this requires that management strategies be developed for subsistence fisheries. As a prerequisite, definitions and criteria are needed to identify and distinguish them. To achieve this, the Chief Director of Marine & Coastal Management (MCM), the authority responsible for managing marine fisheries, appointed a Subsistence Fisheries Task Group (SFTG) to make recommendations about definitions and modes of management. The process involved successive surveys and consultations with fishing communities, communication with MCM, and a national workshop of all participants. This led to consensus about the following definition:

Subsistence fishers are poor people who personally harvest marine resources as a source of food or to sell them to meet the basic needs of food security; they operate on or near to the shore or in estuaries, live in close proximity to the resource, consume or sell the resources locally, use low-technology gear (often as part of a long-standing community-based or cultural practice), and the kinds of resources they harvest generate only sufficient returns to meet the basic needs of food security.

This definition builds on the facts that existing subsistence fisheries are usually: (1) local operations; (2) customary, traditional or cultural; (3) undertaken for personal or family use; (4) primarily for nutritional needs (though excess resources may be sold to ensure food security); (5) based on minimal technology; and (6) undertaken by people with low cash incomes. They are specifically non-commercial and non-recreational. The definition was designed to allow protection of the rights of these people and sustainability of the resources. While developing this definition, it became obvious that the definition of “commercial fishing” in the MLRA is also inadequate, and a new definition was developed. Commercial fisheries span a wide spectrum, and the SFTG defined “small-scale commercial fishers” as a distinct component that has not received adequate attention, and for whom specific management plans need to be developed. They are distinguished by living on or close to the coast, having a history of involvement with fishing, being personally involved in hands-on day-to-day running of their enterprises, operating with limited amounts of capital investment and low levels of technology, and employing small numbers of people.

Key words: defining subsistence, fisheries management, subsistence fishers

In 1994, the Minister responsible for Environmental Affairs and Tourism launched a process leading to the development of a new Fisheries Policy for South Africa. Political changes in the country added both urgency and expectations of broadened access (Lewis 1988, Cochrane 1995, Hutton *et al.* 1997, Martin and Nielsen 1997). The development of the new policy was guided by a Fisheries Policy Development Committee, leading to a White Paper for public comment (van der Elst *et al.* 1997). The final outcome was the Marine Living Resources Act (MLRA; Anon.1998). As with previous legislation, the MLRA distinguished recreational and commercial fishers. In addition, and for the first time in legislation for South African fisheries, it recognized subsistence fishers as a distinct group whose rights need specific protection. Both the technical reports and the White Paper leading to the Act

made it clear that subsistence should be seen as a means of survival, not a way of making a living. The intention of the Act was to protect the needs of poor people who rely on marine resources as a source of food or as a modest source of income.

The history of subsistence fishers on the coast of southern Africa extends back at least 100 000 years (Voigt 1975, Thackery 1988). A large body of work documents the substantial numbers of coastal people currently subsisting on marine resources in South Africa, and the impacts they have on biotic communities (Branch 1975, Siegfried *et al.* 1985, Hockey and Bosman 1986, Hockey *et al.* 1988, Lasiak 1991, 1993, 1998, Branch and Moreno 1994, Lasiak and Field 1995, Kyle *et al.* 1997a, b, Anderson and Griffiths 1997, Tomalin and Kyle 1998). Studies elsewhere similarly reveal the magnitude of the effects of subsistence

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harvesting (e.g. in Chile: see Durán and Castilla 1989, Castilla 1999). Addressing the needs of subsistence fishers is not simple, for their requirements are clearly pressing and yet must be balanced against the stated intent of the MLRA to ensure sustainability of resource-use. Intertidal and shallow-water resources, upon which many subsistence harvesters depend, are particularly susceptible to overfishing because of their accessibility. Unfettered open access leads inevitably to the "tragedy of the commons" (Hardin 1968) or, as Aristotle expressed it: "that which is common to the greatest number has the least care bestowed upon it". Limiting the number of people who can gain legal access to subsistence resources is, however, not an easy, viable or fair means of control. Other approaches that hold more hope include marine protected areas, and co-management systems in which coastal communities participate in the development and application of management procedures (Berkes 1986, Pompe and Rockwood 1993, Hutton and Lamberth 1997, Sowman *et al.* 1997).

Despite the obvious importance of the subsistence sector in South Africa, and the unique problems that attend its management, subsistence harvesters have been completely neglected in earlier fisheries policies. They were previously entitled to function as recreational fishers, which permitted them to harvest limited amounts for personal consumption. The quantities were, however, inadequate as a meaningful source of food, and it was illegal for them to sell any of their catch. The situation is not unique to South Africa. Few countries anywhere in the world have established legislation specifically for the management of subsistence harvesters. Alaska and Canada stand out as exceptions, and the fact that Alaska has established an entire Division to deal with subsistence activities within its Department of Fish and Game testifies to the importance that should be attached to the sector (Fall 1990, Berkes 1990).

One of the problems with recognizing subsistence fishers is the plethora of terms applied to them, and the fact that most publications use these terms loosely and without definition. Terms that are used more or less interchangeably with "subsistence" include "food fishing", "domestic fishing", "harvesting", "native subsistence" (Berkes 1988), "artisanal" (Horemans 1997), "small-scale" (Poggie 1980, Pomeroy 1991, Kuperan and Abdullah 1994, Amar *et al.* 1996), "aboriginal" (Caulfield 1993), "indigenous" (Nikijuluw 1994), "traditional or customary tenure" (Dahl 1988, Ruddie *et al.* 1992, Amarasinghe *et al.* 1997) and "informal" (Lamberth *et al.* 1997). Berkes (1988) and Fall (1990) both provide useful commentaries on these terms, and opt for "subsistence" as the most acceptable term, which Berkes (1988, p. 319) describes as "local, non-com-

mercial fisheries, oriented not primarily for recreation but for the procurement of fish for consumption of the fishers, their family and community". Fall (1990, p. 69) provides the following legal definition used in Alaska: "The non-commercial, customary and traditional uses of wild, renewable resources by a resident domiciled in a rural area of the state for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation, for the making and selling of handicraft articles out of non-edible by-products of fish and wildlife taken for personal or family consumption, and for the customary trade, barter, or sharing, for personal or family consumption". These definitions are legally defensible, and also provide a flavour of the types of activities in which subsistence fishers are involved. In general, subsistence activities are (1) local (occurring within a limited range); (2) customary, traditional or cultural (and often associated with indigenous or aboriginal peoples); (3) undertaken for personal or family use; (4) primarily for nutritional needs (though excess resources may be traded to ensure food security); (5) based on minimal technology; and (6) undertaken by people with low cash incomes. They are specifically non-commercial and non-recreational (Berkes 1985, 1988, Fall 1990, Kuperan and Abdullah 1994).

In the context of the MLRA, the intent was to: (1) recognize the needs of subsistence fishers to harvest adequate amounts; (2) legalize modest sales by them; (3) set aside areas for their exclusive use if this was deemed necessary; and (4) protect the long-term sustainability of the resources. These aims are embodied in the overall Objectives and Principles of Section 2 of the MLRA, and the Act provides the following definition of subsistence fishers:

"Subsistence fisher means a natural person who regularly catches fish for personal consumption or for the consumption of his or her dependants, 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."

This definition leaves much to be desired because it includes several vague elements, 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. As a consequence, the Chief Director of the Marine & Coastal Management (MCM) of the Department of Environmental Affairs and Tourism appointed a Subsistence Fisheries Task Group (SFTG), one of whose goals was to define and distinguish subsistence fishers. The overall goals of the SFTG and

the process it adopted are described by Harris *et al.* (2002a).

The purposes of this paper are four-fold. First, the procedure followed in developing a definition for subsistence fishers is described; it includes the draft definitions that were initially considered but ultimately discarded, and the concerns about them that led to their being modified. Second, the definition that was finally agreed upon by consensus and recommended is presented, and the criteria developed for the identification of subsistence fishers and the reasons for these criteria are expanded on. Third, in arriving at the recommended definition for subsistence fishers, it became obvious that the existing definition in the MLRA of “commercial fishers” is also deficient, and so a new definition was also developed for this sector. Fourth, it was realized that the needs of small-scale commercial fisheries are sufficiently different from those of large-scale industrial fisheries to justify their being separated. Many of them have until recently been considered as “subsistence fishers” and have harvested commercially important species such as abalone (perlemoen) *Haliotis midae* and West Coast rock lobster *Jasus lalandii* while operating under this banner. Importantly, the SFTG identified the urgent need for the development of a management strategy for this sector. Distinguishing and defining these various sectors is essential because the implementation of the MLRA depends on unambiguous definitions. Moreover, the methods employed to manage subsistence, recreational, small-scale and industrial commercial fisheries are likely to differ substantially, and until these sectors are recognized and characterized, appropriate approaches are unlikely to be formalized.

METHODS AND APPROACHES

In deliberating the definition of “subsistence fishers”, the SFTG met six times as a collective group, five times in the form of a four-person working subcommittee, twice with members of MCM and once in a full-day national workshop involving people who represented interested and affected parties. The SFTG was also informed by fieldworkers appointed to interact with fishing communities, and by a series of meetings (“roadshows”) at which members of MCM and the working subcommittee met with fishing communities around the country. The philosophy was that fishers should be actively involved in formulating the definition. Figure 1 summarizes the sequence of events and the avenues of consultation. The composition of both the working subcommittee and the SFTG reflected a deliberate inclusion of people with expertise

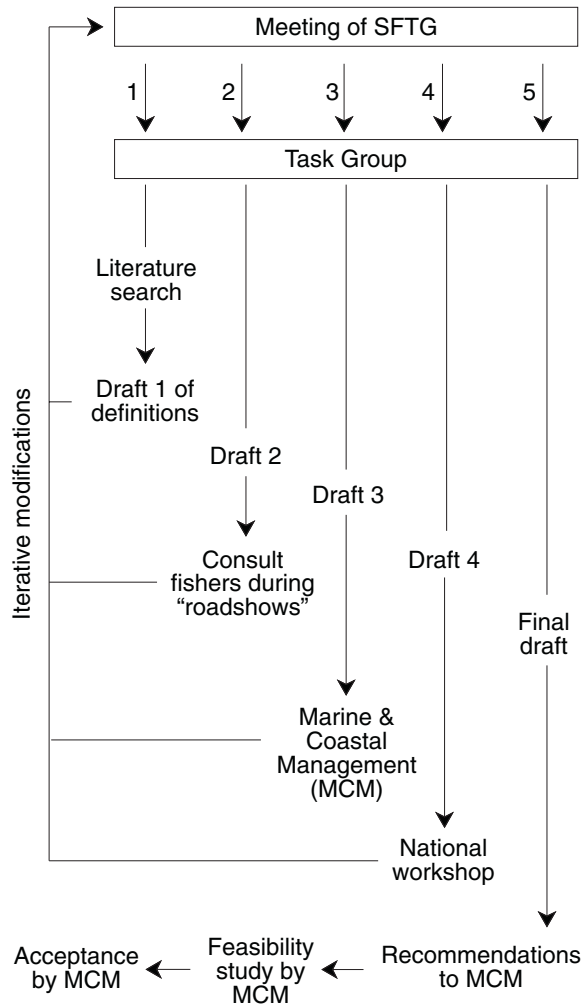


Fig. 1: Summary of the sequence of events and the forms of consultation involved in drafting definitions of subsistence fishers. Several of the steps involved repeated consultations

in sociology, law, criminology, economics, fisheries biology and management. Interaction with members of MCM and with the fishing communities ensured that both the practical aspects of management and the needs of the fishers themselves were incorporated.

The development of definitions was also informed by data that accumulated when surveys were done of fishing communities (Branch *et al.* 2002, Clark *et al.* 2002, Hauck *et al.* 2002). This clarified whether the definition matched the characteristics of existing com-

Table I: Characteristics of the three fishing sectors considered by the SFTG during the initial phase of their deliberations. These three sectors were later modified by merging the first two and subdividing the third into small-scale fishers and large-scale industrial fisheries

Characteristics	Subsistence	Artisanal	Commercial
Main use of resource	Consumption	Sale	Sell for profit
Income level	Poor; no full-time income, or income low	Poor to moderate; no full-time income, or income low	Not poor; income full-time and above average
Needs met by resources	Resources part of basic food requirements	Resources give income to supply food security	Resources yield income sufficient for most needs
Locality of harvest and use of resource	On shores or in estuaries. Resource used locally	On shores or in estuaries. Resource used locally	Operate anywhere. Use not only local; can be international
Who does the harvesting?	Personal harvest of the resource	Personal harvest. No employment of staff	Employ staff to fish and process catch, or operate as cooperatives
Gear	Low-technology gear	Low-technology gear	Often high-technology expensive gear and processing
Origin of fishery	Community-based cultural practice of long standing	Community-based cultural practice of long standing	Not based on long-standing cultures or traditions
Value of resources	Low cash value	Low cash value	Resources abundant or have high cash value

munities, and what their expectations were. Specifically, the surveys sought information on the following. (1) Who undertakes the harvesting, and is it done personally or by employment of others? (2) Which resources are harvested? (3) What gear is used? (4) Where does fishing occur? (5) To what extent are fishing activities local? (6) How long have individual people and communities as a whole been involved in these activities? (7) What is the socio-economic structure of communities, including poverty levels and employment rates? (8) Are the resources likely to sustain harvesting at a level that will meet the needs of local subsistence fishers? (9) For what purposes are resources harvested: consumption or sale? (10) If resources are being sold, are they for local, national or international sale, and what levels of financial gain are likely if resources are retained for subsistence or used for commercial purposes?

THE PROCESS LEADING TO THE PRELIMINARY DEFINITIONS

In the initial phases of the work by the SFTG, three groups of fishers (subsistence consumers, artisanal and commercial) were recognized by them on the basis of characteristics defined in Table I, but the third of these was later divided into two subsectors, yielding four groups:

1. Subsistence fishers – poor people with a long association with harvesting marine resources, who

2. Artisanal fishers – also poor and with a longstanding cultural involvement with harvesting, but who wish to sell rather than consume their catches. The word “artisanal” is applied in a narrow sense, while appreciating that the term is used elsewhere in a different context to include the following group.
3. Small-scale commercial fishers – selling for profit, often operating locally and relatively informally, and not on the same scale as large-scale industrial fisheries. The term is synonymous with “artisanal” in many parts of the world.
4. Large-scale industrial fisheries – large companies capable of harvesting resources that require capital-intensive equipment, and operating factory processing and export markets.

Preliminary definitions of subsistence and artisanal fishers

The SFTG considered that people in the first of the two categories above fell within its terms of reference and, based on the characteristics outlined in Table I, drafted preliminary definitions. It must be emphasized that these initial definitions were later modified after inputs from participants at the national workshop and from fishers at the “roadshows”, and that they do not constitute the definitions ultimately agreed upon and recommended. The preliminary definitions that appear immediately below are included even though they were not accepted, because they illustrate the initial ideas developed by the SFTG and how they

were modified by inputs from other parties.

“Subsistence fishers are poor people who personally harvest marine resources as a source of food to meet their basic nutritional needs rather than to earn money; they operate on the shore or in estuaries, use low-technology gear as part of a long-standing community-based or cultural practice, and collect resources that have low cash value.”

“Artisanal fishers are also poor people, harvesting resources for sale and secondarily for consumption; they personally harvest or fish the resources, operate on or near the shore or in estuaries, use low-technology gear as part of a long-standing cultural tradition, and collect resources that have low cash value that generate only sufficient returns to meet the basic needs of life.”

Concerns expressed about these preliminary definitions

In the process of testing the proposals of the SFTG, a national workshop explored these preliminary definitions. Although there was general agreement about the principles on which they were based, points of concern did emerge:

1. Are the differences between subsistence and artisanal fishers great enough to justify separating them? The definitions differ mainly in the fact that subsistence fishers use their catches “as a source of food”, whereas artisanal fishers use them “for sale and secondarily for consumption”. Managers proposed that the two groups be merged and covered by one definition, arguing that the simpler the system, the better the chances of successful management. Supporting this argument, the fieldworkers who surveyed fishing communities pointed out that most fishers wished to sell at least a portion of their catch, even if this is on an opportunistic basis; so the distinction between the two groups is blurred (between 25 and 72% of the catch is generally sold; Clark *et al.* 2002). Further support came from the argument that both subsistence and artisanal fishers are likely to be managed by the same processes, so there is little to be gained from separating them.
2. It should be possible for people to “upgrade” from being a subsistence/artisanal fisher to become part of a small-scale or large-scale commercial enterprise.
3. Is it fair that subsistence/artisanal fishers be confined to resources that have low cash-value?
4. More specific questions concerned the nature of people who should be classed as subsistence fishers.
 - (a) Should fishers who are seasonally employed by the commercial fishing sector be considered as “subsistence/artisanal” during the off-season when

they have no employment? (b) Can people simultaneously be allowed to hold a commercial right for one resource as well as a subsistence right for a different resource? (c) Should crew members who are employed on boats be considered as subsistence fishers?

5. Terms used in the definition must be unambiguous, and their intent should be clarified where necessary.

Discussions held with fishers and community members in five different regions around the coast (Branch *et al.* 2002, Hauck *et al.* 2002) confirmed support for most of the characteristics on which the draft definitions were based. In all five regions, the fishers themselves identified subsistence fishers as being poor, dependent on fishing for a livelihood, living close to the resource, harvesting resources to eat (but also to sell to meet basic needs). In a majority of regions, there was also agreement that if resources are to be sold, they must be sold locally, and that subsistence fishing should be restricted to fishers with a history of fishing.

Resolution of concerns about the preliminary definitions

Arising from information gathered by the fieldworkers about the nature of fishing communities, the concerns raised at the national workshop, and further meetings of the SFTG, the following principles were agreed upon:

1. The two groups “subsistence” and “artisanal” should be merged into a single definition, with the term “subsistence” being employed in a broader sense to embrace the characteristics of both groups (as listed in Table I). In doing so, it was appreciated that the original use of the term “artisanal” covered both those people with the potential, opportunity and aspirations to become commercial, and those whose primary need is to achieve nutritional security. The essential parts of the merged definition should reflect the following.
 - (a) It should cater for poor fishers, and allow them a range of activities from consumption of the whole catch to sale of the whole catch.
 - (b) Resources used for subsistence should serve to meet the needs of food security, including food requirements.
 - (c) Subsistence fishers should operate from or near the shore or in estuaries, using low-technology gear.
 - (d) Subsistence fishing will generally form part of a community-based activity of long standing; the use of resources will often have a cultural basis.
 - (e) The resources will not be such that they are better used in commercial operations. The first three of these characteristics

- (a–c) are regarded as essential features of subsistence fishers; the fourth and fifth (d–e) are guidelines that help characterize them, but there are circumstances in which they should not be used to exclude people from consideration. Merging the terms subsistence and artisanal should not be seen as eliminating a group of people currently calling themselves “artisanal”. They clearly identify their goal as gaining access to commercial resources, and can comfortably be classed as “small-scale commercial”, about which more is said below.
2. Fishers should be able to “upgrade” from being “subsistence” to a commercial category if they have the capacity to do so, and must be able to apply for commercial rights. The difficulties of making the transition from subsistence to commercial fishing are well recognized (e.g. Tvedten 1990). Because of this, the controlling body responsible for management of marine living resources, MCM, must give special consideration to the needs and rights of people who are in a position to initiate small-scale commercial enterprises, and who have the necessary skills, experience and financial backing to do so.
 3. In relation to the question of which types of resources should be allocated for use by subsistence fishers, the SFTG believes that resources with high cash value are better used to generate incomes as part of small and large-scale commercial enterprises, rather than considering them for use by subsistence fishers. The reasons for this are three-fold. First, because the primary use of high-value resources is to make money, not to feed poor people, they are most likely to be managed as commercial resources and in a manner often different from that appropriate for subsistence resources. The use of commercial species is normally controlled by a Total Allowable Catch (TAC) or Total Allowable Effort (TAE) rather than bag limits. Authorities play a strong role in controlling commercial species, whereas subsistence fishing is best controlled by community-based management and monitoring. Fees levied for subsistence permits will need to be low, subvented or exempted because of the poverty level of the people involved, whereas access to commercial resources needs to be levied at a rate concomitant with their value. The rights to commercial resources are usually allocated for individual species, versus “baskets” of subsistence resources combining several different species. Mixing the two modes of control would complicate management procedures. Mixed-economy systems, such as would occur if both subsistence fishers and commercial enterprises gained rights to the same resource, regularly lead to conflicts between sectors as well as complications for managers (Betts and Wolfe 1992). Excluding commercially valuable species from subsistence harvesting raises potential enforcement problems, and will require adequate monitoring and enforcement (Harris *et al.* 2002b). Second, people gain better returns from lucrative resources if they are formally treated as commercial products. Bank loans generating capital are easier to raise for ventures recognized as commercial. Access to processing and export markets can be developed to add value and improve returns. Importantly, it must be stressed that classifying these resources as “commercial” should *not* exclude new entrants from applying for the rights to harvest and sell them. The category “small-scale commercial” is seen as an important avenue for fishers to gain legal access to rights, particularly for commercial nearshore resources that do not require high capital investment. Third, there is a danger of allocating lucrative resources to a subsistence fishery when no effective means have been developed to monitor and control large numbers of people with individual rights.
 4. An important corollary is that attention will need to be given to the most appropriate ways in which particular resources should be managed. In general, each resource (or group of resources) should be classified as being most suitable for subsistence, small-scale or large-scale commercial use. This need is urgent, because it must precede any allocations of rights. For some resources, it will be appropriate to confine their use to subsistence consumption, to prevent over-utilization that could threaten the resources and therefore their future availability as a source of food. Conversely, those resources best serving the needs of fishers as commercial products should be reserved for commercial use. This is an exercise that is currently being undertaken in South Africa, but two resources need immediate consideration. Specifically, the SFTG recommended that abalone is not suitable for subsistence use and should be reserved for commercial use. West Coast rock lobster should be treated similarly. In both cases, interim measures were implemented in 1998 to allow subsistence fishing, but they opened the door to poaching while not properly benefiting subsistence fishers, to the detriment of both the resources and the fishers (Hauck and Sweijd 1999). Co-management of such resources has been urged as a solution (Poggie 1980, Pomeroy 1991, Odendaal *et al.* 1994, Hauck 1999), but it is unlikely to succeed if large numbers of people have individual rights, their daily bag limits cannot be adequately monitored, and regulations are routinely breached. In the case of rock lobster, a small number of concessionary exceptions

might be justified for fishers who do fall within the definition of "subsistence" outlined above, provided the conditions of their operations are agreed upon and complied with, and their numbers set as part of the overall management strategy for rock lobster. In general, however, West Coast rock lobster should be reserved for commercial use.

5. Fishers who are seasonally employed in the fishing industry and can prove that they do not have any employment for part of the year, should be entitled to operate as subsistence fishers during the "out-of-season" period. However, no person should be allowed to hold a commercial right simultaneously with a subsistence right.
6. The fact that a person is employed as a crew member on a boat will not be grounds for allowing that person to qualify as a subsistence fisher.
7. Resources vital for subsistence users and unlikely to sustain commercial exploitation should be preferentially reserved for the use of subsistence fishers. In this manner historical and cultural practices can be protected, and rights of access can be preferentially or solely granted to those who are *bona fide* subsistence fishers. Among other actions to achieve this, particular species or particular areas can be zoned for the exclusive use of subsistence fishers, especially if there are conflicts between different types of users, or if resources are in short supply and there is a need to allow subsistence fishers preferential use. Care should, however, be taken not to exclude recreational and tourist activities that benefit local communities. Preferential allocations or zonation that favour subsistence fishers follow the precedent set in Alaska, where preference is given to subsistence users in times of resource shortage (Fall 1990).
8. Terms used in definitions do need to be unambiguous. In particular, it was necessary to define what is meant by "poor", "locally" and "low-technology". Clarification was achieved by providing expanded explanations associated with criteria stipulating who may qualify as a subsistence fisher.

FINAL RECOMMENDED DEFINITION OF SUBSISTENCE FISHERS

Following from these points, the SFTG recommended the following definition to replace the existing definition in the Marine Living Resources Act. Ultimately and if accepted, it will require amendment of the Act, but the definition can in the interim be used as a guideline to avoid delay in the implementation of subsistence fisheries, because it is not in conflict with the

current definition; rather it expands and explains aspects of it.

Recommended definition

Subsistence fishers are poor people who personally harvest marine resources as a source of food or to sell them to meet the basic needs of food security; they operate on or near to the shore or in estuaries, live in close proximity to the resource, consume or sell the resources locally, use low-technology gear (often as part of a long-standing community-based or cultural practice), and the kinds of resources they harvest generate only sufficient returns to meet the basic needs of food security.

To clarify the intent of this definition, the following examples give a feeling of the types of activities that could be defined as subsistence: intertidal food-gatherers on sandy and rocky shores on the South and East coasts (e.g. mussel gatherers in the Eastern Cape and in KwaZulu-Natal); netting for harder *Liza richardsoni* in the Olifants Estuary and on the West Coast; fishing for hottentot *Pachymetopon blochii*; traditional trap fisheries at Kosi Estuary; gillnetting in Richards Bay; bait harvesting in estuaries; trade by nyangas (traditional healers) of medicines based on marine resources.

Criteria for qualification as a "subsistence fisher"

Criteria that amplify and clarify aspects of the definition, and which can be used to distinguish subsistence fishers and the conditions under which they will be allowed to operate, are outlined below. Explanatory notes are given in italics.

1. Fishers must collect or fish personally, although immediate family members registered under their permit or license may collect on their behalf (but not on the same day). Fishers must not employ staff to undertake harvesting, processing or sale. *These requirements guard against overexploitation (because bag limits are likely to be set per permit), while still allowing families some freedom over determining who does the harvesting.*
2. All resources must be categorized in terms of their suitability for use by subsistence fishers (versus their use in small-scale or large-scale commercial fisheries). *The decision about whether a resource can be caught for consumption only, or for consumption and sale, should rest on the level and type of harvesting pressure the resource is likely to*

be able to sustain. Resources that are sold almost always come under greater pressure than those harvested for personal consumption. Berkes (1985, p. 203) emphasizes that one of the conditions that undermines community controls and "leads to the tragedy of the commons is commercialization of a subsistence or artisanal fishery". Conversely, resources that are almost never caught for consumption but rather for financial gain should be reserved for commercial enterprises. As emphasized above, small-scale commercial enterprises are seen as an important means of upgrading poor people into commercial operations. Details of the proposed allocations of resources between these sectors can be found in Cockcroft et al. (2002).

3. Only low-technology gear that is not capital-intensive may be used for the capture and processing of subsistence resources. Specifically excluded would be motorized boats, electronic equipment, hookah (surface air supply) and SCUBA gear. *There have been suggestions that subsistence harvesters be restricted to the use of manually produced gear. Such gear would clearly qualify as being "low-technology". However, much of the gear currently used by subsistence fishers (e.g. gillnets) is not handmade, so it is not possible or even desirable to insist that all subsistence equipment be handmade.*
 4. Subsistence fishing will be restricted to estuaries or the seashore, or in the adjacent subtidal zone that can be harvested by someone operating from the shore, provided that no motorized or sailing boats are used. *Sailing boats are extensively used by subsistence fishers in Moçambique, but there are no known subsistence fisheries in South Africa that rely on sailing boats in the sea, and these activities should be precluded because of the danger of overexploiting resources.*
 5. Subsistence fishers must live in close proximity to the resources they harvest (i.e. within 20 km). *The term "locally", as employed in the definition, was defined as being within 20 km of the point of harvest, because surveys showed that all people who could be regarded as subsistence fishers live less than this distance from the areas where they harvest (Branch et al. 2002, Clark et al. 2002). This criterion was introduced not simply to help define subsistence fishers, but also to protect their rights against people who live far away, who cannot depend on the resources as a means of subsistence but may wish to capitalize by using the resources for commercial gain. It was explicitly introduced because of repeated requests from fishers to exclude "outsiders" from their fishing grounds (Hauck et al. 2002). This recommendation also follows established principles in Alaska,*
- where capture must be "local" and take place in "social harvest areas" (Fall 1990, p. 84).*
6. In allocating rights, preference should be given to those whose practice of fishing has a long-standing cultural or traditional role (transmitted through at least three generations or 50 years) in the coastal community in question. *There are a few subsistence communities of recent origin that now depend on marine resources either as food or to generate a basic income. These people should not be excluded from consideration, but should receive second preference if the allocation of rights to them is in conflict with applications from more established fishing communities. Again, this recommendation follows criteria established in Alaska, where customary and traditional uses are defined as being "long-term, consistent ... use" and involving "transmission of knowledge about ... fishing across generations" (Fall 1990, p. 84).*
 7. To qualify for consideration, fishers should be poor and have no other full-time employment that yields income sufficient for the resource to be no longer necessary to meet their basic food requirements. *As a guideline, the term "poor" in the definition encompasses fishers who fall below the 40-percentile interval of national incomes. Surveys of coastal fishing communities show that people involved in what can reasonably be construed as subsistence activities all fall below the 40% interval: indeed, many fall below 20% (Branch et al. 2002). Therefore, there is an objective way of defining the poverty level. It is advocated that this should not be slavishly adhered to. As one speaker at the national workshop said, "we know they are poor, who cares how we measure that?" The term "food security" in the definition of subsistence fishers is used in the sense defined by the F.A.O. "... access to sufficient, safe and nutritious food to meet ... dietary needs and food preferences for an active and healthy life".*
 8. Fishers must conform to sustainable levels of harvest, which will need to be set for each resource and in each locality. *This does not necessarily mean that a detailed study needs to be done on each resource in each locality. That would be an impossible task and would set back the whole process for many years. However, sensible precautionary levels of harvest do need to be agreed upon, and can be revised as knowledge improves. In all likelihood, levels of harvest will be fixed by setting bag limits. These may differ from those set for recreational fishers. Permits can be allocated for "baskets" of resources, allowing several species to be harvested under one permit, provided limits are defined for each of the species to prevent overexploitation. Bag-limits defined*

for individual species will need to be supplemented by other measures, such as closed areas, and monitoring of catch composition and quantities will need to be adequate to ensure that the status of the stocks can be assessed.

9. Subsistence fishers may barter or sell excess catches beyond consumption needs (within legal catch limits), provided the sale is by the fishers personally. *There have been suggestions that subsistence fishers should not have the rights to sell their catches, although bartering should be permitted. The SFTG does not agree. The distinction is hazy and almost impossible to enforce. There have also been suggestions that subsistence fishers should not be allowed to accumulate any excess (i.e. at any one time no more than the daily bag limit be held). Indeed, this proposal appears in the White Paper that preceded the Marine Living Resources Act. However, the SFTG does not support this: it is neither fair nor enforceable.*
10. Any sale should be local (within 20 km of point of capture), and the resource should be used for consumption within that local area. *The reason for this is not to constrain free trade, but because the resources cannot sustain intense commercialization. Those resources that can support commercial use are better reserved for commercial use. The clearest examples that are likely to be debated are West Coast rock lobster and abalone, and these have been discussed in more detail above. The International Whaling Commission (1981; cited by Moeran 1992) has also invoked the local consumption of resources by indigenous peoples in defining "subsistence". Peluso et al. (1994) also noted that the movement of resources out of the area of capture for processing and sale is one of the factors removing control from local communities.*

RECOGNIZING "SMALL-SCALE COMMERCIAL FISHERS"

The definition of subsistence fishers recommended above excludes an important group of people who might previously have been termed subsistence fishers or artisanal fishers, but who were in reality harvesting purely for sale, and who would prefer to gain commercial rights, particularly to abalone and West Coast rock lobsters. Historically they have been marginalized. Recently they have been given recognition by classing them as "subsistence" fishers, but this ignores the fact that their expressed desire is to gain access to commercial rights if the opportunity arises. They cannot, however, simply be lumped with large-scale industrial fisheries, particularly because they include

new entrants with unique needs and management problems. The SFTG has termed these people "small-scale commercial fishers". Distinguishing them will be an important step to granting rights and developing management strategies that are appropriate for their unique circumstances.

Defining commercial fishers

The Marine Living Resources Act defines commercial fishers in general as follows: "commercial fishing" means fishing for any of the species which have been determined by the Minister in terms of Section 14 to be subject to the allowable commercial catch or total applied effort, or parts of both.

This definition is clearly deficient, in part because of what has been said above. Any subsistence (or recreational) fisher harvesting a species such as West Coast rock lobster (which does have an "allowable commercial catch") would automatically be considered a commercial fisher. Furthermore, it makes no attempt to characterize the nature of commercial fishers, who are distinguished by a number of features:

1. Commercial fishers operate as individuals, in groups or companies, and can either employ people, or work as a group and share their profits within cooperatives.
2. They embark on a business with the aim of making a profit.
3. The resources they harvest either yield high prices or can be harvested in sufficient quantities to generate a profitable income.
4. The resources are managed by setting a TAC or (less often in South Africa) by a TAE.
5. Capture of the resources is not limited to the shore or estuaries, and sale of the resources often takes place far from the site of capture.
6. The resources are often processed to increase their value, and at least part of the catch is often exported.
7. Permit-holders must have the capability to make use of commercial rights, and must share in the risks involved in establishing a commercial venture.

Arising from these characteristics, the SFTG recommended the following definition for commercial fishers. Again, the Act would have to be amended to accommodate this new definition, if the recommendation is accepted, but in the interim it can be used as a guideline.

Commercial fishers fish for profit and earn an income sufficient to meet more than their basic needs of life, may employ staff or operate as profit-sharing collective groups, focus on resources that are managed by TAC or TAE and which have high value or can be caught in large quantities, and may use capi-

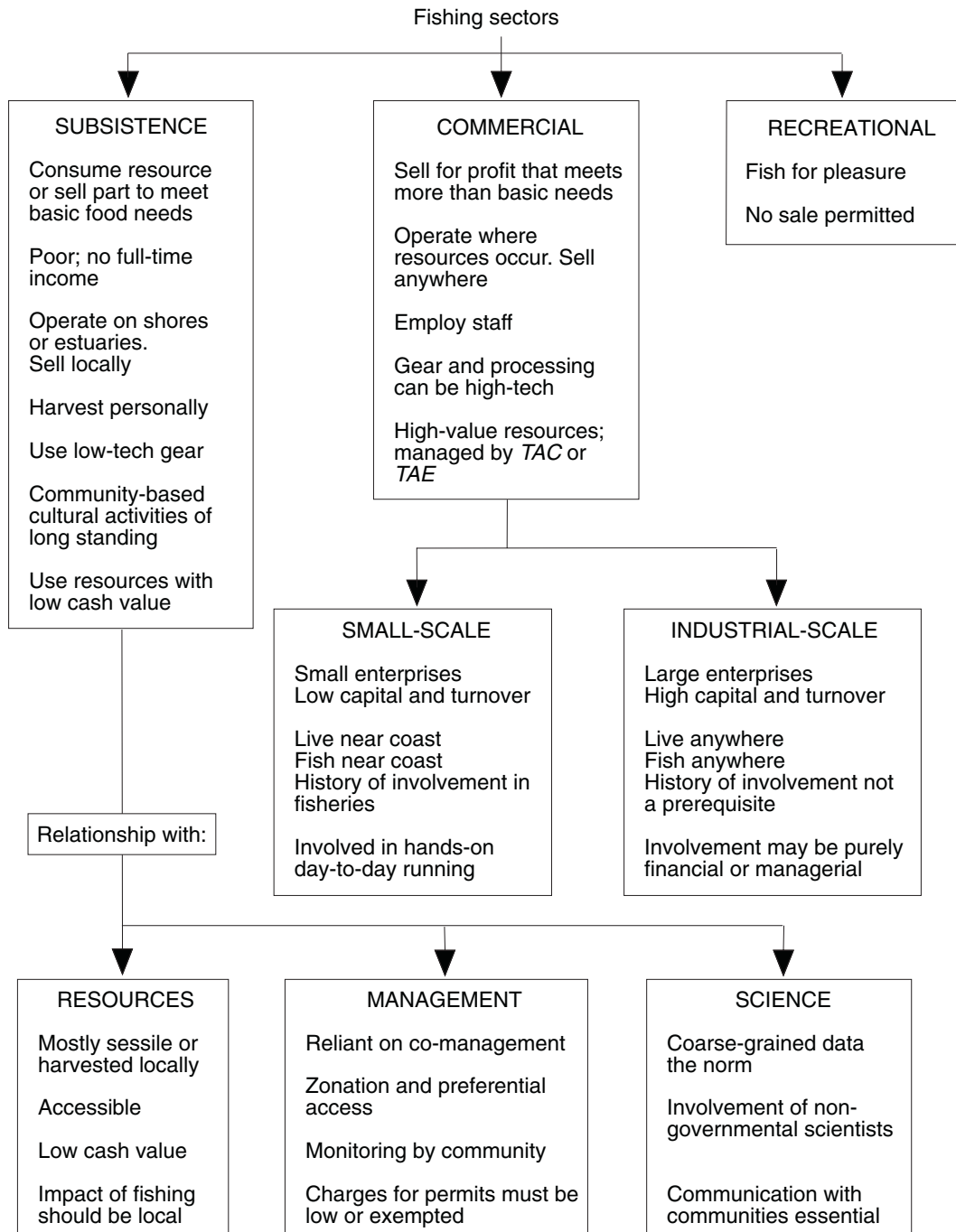


Fig. 2: Synopsis of the characteristics of the four sectors of fisheries ultimately recognized in the definitions recommended by the SFTG: subsistence, small-scale commercial, industrial-scale commercial and recreational fishers. The lower half of the diagram indicates the more specific relationships that exist between subsistence fishers, the nature of resources suitable for their use, and the management and research styles appropriate for their management

tal-intensive high-technology gear and methods of processing.

Distinguishing "small-scale commercial fishers"

The definition given above helps to resolve the nature of commercial fishers, but it is still too broad to allow recognition of small-scale commercial fishers. For legal purposes they can be encompassed by the recommended definition of commercial fishers, but for practical and managerial purposes it is important that they be distinguished and separated. There are seven reasons why the SFTG considers that small-scale commercial fishers need separate recognition. (1) They have low capital and low turnover, so that a different cost-structure may need to be developed for their permits or levies. (2) The resources they are likely to be able to access are nearshore and require different management approaches from those offshore. (3) Some areas may need to be zoned for the exclusive use of small-scale commercial fishers. (4) Small-scale commercial fishers, particularly those who are new entrants, may need advice on how best to go about applying for rights, assistance with the development of business skills, and advice on obtaining capital. MCM has undertaken to create a "Development Wing" for this purpose. (5) It is government policy to promote small, medium and micro-enterprises (SMMEs). (6) It is declared policy in the Marine Living Resources Act that greater access be granted to new entrants to achieve equity. In many cases this will be by way of entrants who need to start small, even if they grow later. Small-scale commercial enterprises should be seen as an opportunity to break the cycle of persistent poverty associated with subsistence fisheries (Peluso et al. 1994), while at the same time developing adequate methods of control that will safeguard the resource. (7) Small-scale fisheries are a means of uplifting poor people who already have the skills and experience required for fishing, and should not simply be another way of allowing well-to-do investors entrance into the fishing industry.

Four criteria distinguish small-scale commercial fishers within the broad category of commercial fishers:

1. Applicants should live on or close to the coast (<20 km from the sea).
2. They should have a history of involvement with fishing. As a guideline, this should extend back at least 10 years in the case of individuals, and 50 years in the case of communities.
3. The owners of small-scale commercial operations must be involved in the day-to-day running of the enterprise. Specifically, they must have a hands-on involvement with the harvesting or processing.
4. There should be limits to the size of the group, com-

pany or cooperative that can qualify as being "small-scale". Methods do exist for distinguishing small, medium and micro-enterprises (SMMEs), including the number of people involved, the amount of capital invested, the economic turnover and the number and size of boats owned. Expert economic advice needs to be sought in helping to define these limits.

The following are examples that might fall into the "small-scale commercial" category. This list is not prescriptive, but it does give a sense of the types of activities and resources considered by the SFTG to be suitable candidates for small-scale fisheries. It includes the aquarium trade; abalone; hoopnetting for West Coast rock lobsters; handlining for hake *Merluccius capensis* and *M. paradoxus*, snoek *Thyrsites atun* and possibly some of the other linefish; estuarine swimming prawns; trek-netting; gillnetting in estuaries; harvesting oysters *Striostrea margaritacea*; seals *Arctocephalus pusillus pusillus*; inshore octopus; whelks *Bullia laevissima*; white mussels *Donax serra*; two species of West Coast limpets *Cymbula granatina* and *Scutellastra argenvillei*; kelp *Ecklonia maxima* and other seaweeds.

Conversely, clear examples of resources or activities better reserved for large-scale industries are trawling; deep-water lobsters; trapping West Coast rock lobsters; chokka squid *Loligo vulgaris reynaudii*; open-water pelagic fishing; the pelagic bait industry; longline fishing.

Identifying small-scale commercial fishers and developing suitable management practices for them are priority tasks for MCM if the needs and aspirations of this sector are to be met in a sustainable manner.

SYNOPSIS

Three aspects dominated the considerations of the SFTG. (1) The needs of poor people who depend on marine resources as a means of subsistence need to be recognized and protected. (2) The process must protect the long-term sustainability of the resources, which are vulnerable to overfishing. Poaching already threatens two currently lucrative resources and it is important to ensure that subsistence fishing sustainably meets the needs of poor people and does not become a back door for poaching. (3) Resources that can sustain a commercial harvest are better used for that purpose than for subsistence, and people who previously used such resources on a subsistence basis should have access to commercial rights for these resources, if they have the capability to use them commercially. An important theme that emerges from this point is the need to create a "small-scale commercial" subcategory to facilitate this process.

This paper focused on the derivation of a definition

for subsistence fishers and amplifies on the criteria that distinguish them. It is, however, important to place the definition in context. Successful implementation of a subsistence fishery will depend as much on identifying the nature of suitable resources and developing an appropriate management and research style as it will on defining subsistence fishers and advancing an ethos of sustainable use among them. These approaches are dealt with in detail elsewhere (Clark *et al.* 2002, Cockcroft *et al.* 2002, Harris *et al.* 2002b, Hauck *et al.* 2002, Branch *et al.* 2002) but, in synoptic form, Figure 2 puts into context the definitions recommended here and the relationships between subsistence fishers, the nature of resources suitable for their use, and the management and research approaches necessary to address their needs.

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