

# **Obstacles to Implementation of a Co-management System in the Olifants River Harder Fishery, South Africa: An Update**

## **1 INTRODUCTION**

This paper reports on the status of the Olifants River Harder co-management project first mentioned in the proceedings of the fisheries co-management workshop held in Malawi in 1997. It focuses on the obstacles encountered in implementing the co-management arrangements, discusses reasons for the problems, and suggests a way forward.

## **2 BACKGROUND**

The village of Ebenaeser is located 15 km from the Olifants River estuary, about 370 km from Cape Town on the West Coast (Figure 1). This estuary is considered to be in an almost pristine state with little impact from human activity (Council for Scientific and Industrial Research, 1984). Environmental agencies such as the Department of Cape Nature Conservation (CNC) maintain a long-term goal of sustaining areas such as this to preserve bio-diversity in South Africa. The approximately 500 households (among five districts), which comprise Ebenaeser have battled against drought and poverty since 1925 when residents were forcibly removed from fertile, productive land as part of the apartheid legacy. Upon relocation, residents had to learn a new way of life in order to survive. Fishing of southern mullet, "harders", in the river and estuary became a means of subsistence and livelihood.

This project started in 1993 when fishers asked the Environmental Advisory Unit, of the University of Cape Town to undertake a preliminary assessment to determine possible reasons for the decline in fish catches (EAU, 1993). Results from an initial assessment indicated that a number of factors could be affecting fish catches, including natural phenomena. The community was strongly of the opinion that this reduction in catch was because of diamond recovery vessels anchored in and near the River mouth. As a result, they asked researchers to focus their investigation on this factor.

However, due to a lack of historical information on catch statistics (annual catches, catch rates, and size), no reliable quantitative statements about the status of the harder resource or factors which might affect it, could be made.

At a workshop in 1994, attended by various stakeholders including representatives of the fishing community, CNC and the neighbouring mining company, it was agreed that research was needed to gain an understanding of the status of the harder resource and monitor changes in catches. Consequently, researchers from the University of Cape Town, the Peninsula Technikon, and the National Department of Environmental Affairs and Tourism developed a research programme in consultation with the fishing community and CNC officials. The main focus of the initial phase of

the programme was to gather information on the relationship between catch rates, fish size and gillnet mesh size by season.

A catch monitoring system was implemented in November 1994. A mesh size experiment was also carried out to determine the relationship between fish size, catch rate and gillnet mesh size. Through assistance from paid community monitors "walskippers", catch cards were distributed and collected from fishers to monitor the harder resource. The system broke down initially due to the catch cards being too complex and time consuming for fishers to complete. The cards were redesigned and the monitoring system re-established in 1996 (Sowman et al, 1998).

The mesh size experiment, in which catch statistics for various sized gillnets were compared, showed a marked decrease in fish catches in direct correlation to increasing gillnet mesh size. Results of the experimental work suggested that the legal mesh size should be set at 51mm (down from 54mm). This was adopted by both the fishing community and CNC officials following several workshops in 1993. Initial results suggested that the low catches experienced in the early 1990s could well have been linked to an increase in legal mesh size (54mm) introduced by CNC in 1991. The reasons for this increase are not understood since the legal minimum mesh size for fishers on the Berg River, approximately 250 km south of the Olifants River, is 48mm.

During 1995 and 1996 several meetings and workshops were held with fishers to set up a community monitoring system and to identify and address problems affecting fishing activities. What emerged from the process was fisher dissatisfaction with current management approaches and a desire to become more involved in management decisions. Due to CNC's limited capacity and resources, proposals to develop a management system, in which the fishers and CNC would jointly manage the resource, were supported by both parties. During 1996/1997, several workshops were held to discuss these proposals and allocate management responsibilities. By the end of 1997, a community-based monitoring system had been established, the Fishing Committee had prepared a constitution and a draft partnership agreement was being negotiated. The research team played a facilitating role throughout this process. However, during the following fishing season, little progress was made towards finalising the draft agreements and implementing the proposed system of co-management.

### **3 POLITICAL DEVELOPMENTS AFFECTING FISHERIES CO-MANAGEMENT**

Since the democratic government elections in 1994, the Department of Environmental Affairs and Tourism (DEAT) has embarked on a comprehensive law reform programme to reflect the political shift of the post-apartheid parliament to democratic participatory governance arrangements in environmental management. Of direct relevance to the management of natural resources is the National Environmental Management Act 107 of 1998 (NEMA) and the Marine Living Resources Act 18 of 1998 (MLRA).

Prior policy statements (White Papers) which highlight participation of local communities in resource management support both national acts. The Environmental Policy White Paper (GN 18164) identifies “the establishment of mechanisms for effective public participation” as a strategic goal. The Marine Fisheries Policy advocates that “local communities, labour, scientists and resource users will play an active role in the management of marine resources” and “all resource harvesters will be required to keep data for management purposes”.

The new draft White Paper for Sustainable Coastal Development in South Africa (1999) advocates partnerships between government, resource users and the private sector as a way forward to more efficient, equitable and sustainable management of coastal areas and resources.

While NEMA retains Ministerial discretion as the ultimate decision-making authority, it extends public participation beyond stakeholder representation on statutory forums to optional co-operation agreements between organs of state and civil society for “the purpose of promoting compliance with the principles of the act” (section 35 of NEMA). Joint policy implementation, compliance monitoring, performance reporting, review and improvement are recommended as core elements of management co-operation agreements.

Similar provisions for formal co-operative strategies to manage the fragmented and conflict-ridden fisheries sector, are regrettably absent in the MLRA provisions. Despite its consultative origins, the MLRA has failed to provide the much-needed framework for transformation of the fishing industry to ensure sustainable, equitable and stable fisheries exploitation. Resistance by commercial users to equitable restitution of access rights and benefits to the marginalised majority users as well as the lack of capacity within DEAT to implement the provisions of the Act, remain obstacles to implementing the politically accepted transformation imperatives. The urgent need to develop a shared vision and joint co-operative strategies remains a key challenge for fishery managers and users.

However, the formal recognition of subsistence fishers as a legitimate category of fishers in the MLRA (section 19) provides an opportunity to explore co-management as an alternative approach to fisheries management in South Africa. The recent appointment of a Subsistence Fisheries Task Group to advise the Chief Director of Marine and Coastal Management on all aspects of subsistence fisheries management is another positive step in this regard.

#### **4 CHARACTERISTICS OF THE FISHERY AND FISHERS**

In order to identify changes in, and assess current needs and concerns of the Ebenaeser fishing community, a survey was prepared and administered to the fishing households in May 1999. Sixty-four of 72 licensed fishing households were surveyed. The following summary information on bio-physical, technical and socio-economic characteristics of the fishery provides the context for the assessment which follows in sections 5 and 6.

#### 4.1 Summary of biophysical and technical characteristics

Southern mullet, *Liza richardsonii*, (“harders”) comprise the staple catch for the Ebenaeser fishers. This species is endemic to South Africa and occurs in many estuarine fisheries along the South African coastline. In comparison to most estuaries, total landings in the Olifants estuary are estimated to be less than 1% of the annual landings of harders in South Africa (Lamberth et al, 1997). Regardless of their overall impact on the resource, fishers in Ebenaeser continue to report a significant decline in catch rates – a trend they claim has been ongoing since 1993. Concern with catch rates and the sustainability of the resource were identified as a long-term community concern by nearly 1/3 of fishers surveyed in 1999.

The number of licenses allocated has increased from 65 (during 1996-1998) to 72 (during 1998-1999). There has also been an increase in the average length of gillnet used on the estuary. The issuing of one license per household is still maintained. The basic equipment of the fisher is a wooden rowing boat, a set of oars, and a gillnet (with mesh size ranging from 48mm to 54mm). Survey results show that fishers fish year-round (rather than just during summer season as had been previously reported) with October through March being the months most fished. December and January are considered the months during which the most fish are landed. Fishers report going out to fish whenever the weather is suitable, which includes times of extreme temperature, thick fog, precipitation, and heavy winds. Ninety percent of respondents spend 1-3 days per week fishing and average 14 hours fishing during those days, with over 30% spending 24 hours on the water. Fish are consumed fresh or salted and are sold primarily to residents in the Ebenaeser community or local farmers. However, over 60% of respondents report seldom having surplus catches (in excess of what they need for subsistence); but if they do, most share it with neighbours (66%) before selling (33%).

#### 4.2 Summary of socio-economic and cultural attributes

The status of basic amenities in Ebenaeser remains basically the same from the 1996 survey. Lutzville and Vredendal (20km and 40km respectively from the community) remain the primary resources for services not offered in Ebenaeser including medical, financial, and emergency. There continues to be a large discrepancy between districts in terms of amenity services. While nearly all homes in all districts have electricity, some districts are still without piped water. Although an extensive solar-driven water pumping system was installed in the Papendorp district to aid in this process, it has yet to be put into working order. In the meantime, many residents of the Ebenaeser community continue to rely on trucked containers of water. This has proven to be both unreliable and unsanitary. Little seems to have been accomplished in meeting the basic needs of the community as a whole. Those accomplishments that have been achieved seem to be due to individual effort and opportunity, rather than overall community empowerment.

Survey results show trends toward the community becoming more subsistent in its dependency on the harder resource. In comparison to the 1996 survey, fishing households are earning considerably less income per month in both summer and winter. For example, during summer, the 1996 survey showed the lowest monthly

income to be R200 per month. Recent survey results show this amount to be R100. In fact, over 50% of households report earning R800 or less per month as compared to a range of R1000 or less in 1996.

Some of the reasoning behind this may be due to a noticeable separation of income levels among districts. Some districts have historically been more affluent than others for various reasons. In considering who “owns the wealth”, it appears that the gap between the “haves” and “have nots” is spreading further.

Forty percent of survey respondents note that their highest source of income was from fishing and their second highest source from pensioners in the household. This was true for both winter and summer seasons.

In considering that fishing is the highest source of income for respondents in both winter and summer, yet accounts for such a relatively low overall percentage of total income, there appears to be suggestion that many households enjoy no disposable income and are merely subsisting. Additionally, while it was shown that over 40% of fishing households have access to land for either raising crops, livestock or both, 70% of livestock and 54% of crops are used solely for consumption.

A perspective on the health status of the fishers was also gained from the survey undertaken in May 1999. Results show that fishers do have common health concerns that appear to be in conjunction with both occupation and economic constraints. The most common health symptoms mentioned were respiratory disorders and muscular pains.

#### 4.3 Summary of market characteristics

As mentioned, most survey respondents noted that they seldom had surplus catch that they sold for income. Fish that are sold are most often purchased by farmers from the area or Ebenaeser community members (over 75%). Fish are either sold fresh on a per fish basis or salted and dried (bokkum) and sold as a bundle of 25 fish. Seventy-five percent of respondents reported receiving R0,50 per fresh fish, with prices ranging from R0,40 (14%) to R1 (5%). This amount is higher than the most predominant price from 1996 (R0,35); however it is also quite obvious that this has little impact on the overall economic situation when figures of monthly income are compared. The most often paid price for bokkums is R12 per bundle (44%).

Over 96% of survey respondents noted that new marketing ideas were needed for surplus catch. Respondents did note new markets and products, such as the fish sausage, which was developed as part of a research project undertaken by the Food Technology Department of the Peninsula Technikon working with fishers in Ebenaeser. Although these were considered to be an important means of generating income, the most frequent response in reference to specific marketing ideas for surplus fish was to set-up a cold storage facility in Ebenaeser, to which all fishers would have access, for the storage of surplus catches. By having such a facility, fishers wouldn't be forced to sell fish within a certain time period and could space out sales and receive better prices and more regular income.

Subsequent to the successful development of this nutritious and tasty “fish sausage”, a research project has been initiated to develop the entrepreneurial skills of fishers and to promote sustainable income generation projects. The Peninsula Technikon Food Technology Department, in collaboration with a statutory science council, the Council for Scientific and Industrial Research’s (CSIR) Foodtek Division, are developing a research programme with the following objectives:

- a) Evaluation of the economic viability of the fish sausage as a sustainable means of income generation for fisher households;
- b) Transfer of the pilot-product food processing technology and information to fisher household level; and
- c) Training and development of fisher skills and expertise in support of the technology transfer.

Thus, there is evidence of progress with respect to the marketing and beneficiation of the resource by comparison to the situation in 1996.

## **5 INSTITUTIONAL ARRANGEMENTS**

### **5.1 The Fishing Committee**

A Fishing Committee, comprising licensed and non-licensed fishers, has been in existence in Ebenaeser for the past 10 years. This committee is elected at a public meeting by all fishers in the Ebenaeser community for a period of three years. All five fishing districts are represented on this committee. Except for the secretary, all members of the committee have historically been male.

In the past, the key functions of the committee have been to determine criteria for allocating annual licenses, assist CNC in identifying who qualifies for licenses, and provide a channel of communication between the fishers and other government structures.

In general, the fishing sector in Ebenaeser, including the Fishing Committee, has traditionally been accorded a very low status in the community. Prior to the first democratic local government elections in 1996, the Committee operated as a puppet of the Management Board, a local level institution established during the Apartheid era to deal with local government issues. The Committee had no legitimacy within the community, and any changes to the management of the fishery, which would give the fishers greater power in decision-making, were actively resisted.

With the development of a system of co-management for the harder resource during 1995-1997 (see section 5.7), specific management and decision-making responsibilities, have been afforded to the Fishing Committee. During this period, communication between the fishers and the newly elected Transitional Local Council (TLC) increased as members of the TLC were invited to attend Fishing Committee meetings.

In addition a process to develop an overall management plan for the Lower Olifants River area was initiated and several workshops and meetings were held with all

groups with an interest in the Olifants River environment. Although this plan had a spatial focus and did not investigate or provide management recommendations for the fishery, it raised the profile of the needs and concerns of the fishers and highlighted the importance of maintaining the ecological integrity of the estuary.

During this period, the Fishing Committee made significant progress with respect to building organisational capacity and assuming greater responsibility for aspects of resource management. Achievements included: (1) the preparation of a draft constitution and identification of goals; (2) drafting guidelines for the allocation of fishing permits; (3) the submission of a funding proposal and receipt of R20 000 for operational costs; and (4) negotiation on, and development of a draft co-management system for the Harder fishery.

However, since early 1998, there has been very little action or progress from the Fishing Committee, and many of the initiatives have not been taken forward. Possible reasons for this situation are explored in section 6. Dissatisfaction with the Fishing Committee emerged as a key concern amongst the fishers in the survey undertaken in April 1999. Although a new Fishing Committee was due to be elected in June 1999, this has not happened.

## 5.2 The Department of Cape Nature Conservation

The Provincial Department of Cape Nature Conservation, has been legally responsible for managing the harder fishery. Although promulgation of the MLRA has allocated the responsibility for management of estuarine resources to the Chief Directorate of Marine and Coastal Management (MCM) within the Department of Environmental Affairs and Tourism (DEAT), procedures are currently underway to devolve responsibility for estuarine resources back to provincial conservation agencies. Whilst the provincial ordinances are being reviewed, all officials of provincial conservation agencies have been appointed by the Minister as fishing control officers, in terms of section 9 of the MLRA.

Management of the resource has been affected through controls of (1) fishing effort, (2) restrictions on mesh size and net length, and (3) closed areas. At present, 72 licenses for the use of gillnets with a mesh size of 51mm, and a length of 30m or 10m are allocated annually. In the past, decisions regarding the total number of licenses to be issued have been taken by CNC while the identification of potential license holders has been undertaken by the Fishing Committee. This has changed per the draft co-management arrangements and the fishers now have the power to recommend how many licenses should be issued per annum, although the maximum number issued in any one year will be jointly determined by CNC and the Fishing Committee. The intention was that these recommendations would be based upon results obtained from the monitoring programme and analysed by the research team. While the monitoring and experimental programme yielded useful information to guide decisions regarding numbers of permits, net length and mesh size for the 1996/1997 season, inadequate data has been provided for the 1998/1999 season.

The CNC has also been responsible for enforcing regulations relevant to the broader management of the estuary. In particular, the enforcement of regulations restricting

boating and fishing activities in a demarcated area in the vicinity of the river mouth, has been a primary concern and caused conflict between fishers, diamond boat operators and CNC.

The CNC, like most other government departments in South Africa, is currently undergoing a transformation and restructuring process. This, together with the promulgation of the MLRA, has created some confusion and uncertainty regarding the functions and responsibilities of CNC.

### 5.3 Legislation and regulations

In terms of the MLRA, the management of living marine and estuarine resources is the legal responsibility of the national Department of Environmental Affairs and Tourism (DEAT). This is in response to the South African Constitution Act No. 108 of 1996, which requires that “marine resources, which include estuaries, lagoons and tidal rivers, shall be managed at National Level by the Minister of Environmental Affairs and Tourism”.

Despite the new legislation, de facto management of estuaries is still being carried out in terms of provincial ordinances which charge provincial conservation departments with day-to-day management of these resources. This new legislation has resulted in confusion regarding the management of estuaries and DEAT is currently in the process of preparing regulations to devolve management of estuaries to the provinces.

In terms of section 19 of the MLRA, subsistence fishers have been identified as a legitimate category of fishers and provisions exist in the Act to declare certain areas subsistence fishing areas or zones, in which other fishing or related activities may be prohibited. The Act also makes provision for identification and declaration of fishing communities and subsistence fishers within those communities.

As discussed in section 3, a task group has been appointed to advise the Chief Director on all aspects of management of subsistence fisheries, (including which resources should be considered for subsistence use) and to assist in identifying and quantifying numbers of subsistence fishers in South Africa. A further task of this group has been to investigate and make recommendations on appropriate management systems for such subsistence fisheries. Consideration of alternative models, including traditional and community-based management systems as well as various forms of co-management arrangements, are being investigated. The expected outputs from this group include:

- a database of existing and potential subsistence fishers
- recommendations for preliminary guidelines on procedures for issuing of subsistence fishing rights
- proposals regarding the future management of subsistence fisheries.

The results of the investigations and debates concerning future management of subsistence fisheries are due in mid-October 1999. The main concern regarding this process, with respect to the Olifants River Harder Fishery, is that efforts between CNC and the Ebenaeser fishers to establish a co-management system are not

negatively affected by national bureaucratic processes such as the procedures for applying for subsistence licenses which currently don't make provision for a community or a group of subsistence fishers to apply for a community permit.

In the meantime, while the research and deliberations take place and existing institutions are being restructured, the day-to-day management of estuarine resources is still being undertaken at the provincial level by departments responsible for nature and environmental conservation in the coastal provinces. In the Western Cape Province proclamations are issued in terms of the Nature Conservation Ordinance No. 19 of 1974. Currently, management of the Olifants River estuary is guided by a proclamation issued in terms of this Ordinance. Administration and enforcement of these regulations is undertaken by officials stationed at a district office of the Department, approximately 50 kilometres from the estuary.

#### 5.4 Relationship between fishers and government agency

Though attempts have been made, a lack of communication seems to be evident between the fishing community and the current regulating agency. Over 40% of survey respondents noted they had never heard of the co-management initiative between the fishers and CNC. In spite of this, nearly 70% of respondents thought it was a good idea and should be pursued. Those that felt it was not a good idea noted that it was the idea of partnering specifically with CNC that was not a good idea (7%) and that neither the Fishing Committee nor CNC had the best interests of the fishing community in mind in discussing such a partnership (14%). Respondents offered evidence of this in current issues dealing with the lack of monitoring efforts by CNC, the continued presence of diamond boats in the estuary, and the lack of overall fisher community representation given by the Fishing Committee.

CNC, on the other hand, claims to have a good working relationship with the fishers although they have indicated that the Fishing Committee have not been active in fulfilling their responsibilities in terms of the co-management proposals, especially with respect to assisting with enforcement and communicating with the broader fishing community.

#### 5.5 Compliance and Enforcement

In terms of Proclamation No 357 of 1972, enforcement is carried out by CNC which is stationed at van Rhynsdorp, some 50 km from the estuary. Until recently, CNC officials have regularly patrolled the banks of the rivers by car and occasionally by boat.

These officials have had the authority to confiscate fishing equipment, withdraw licenses, and lay charges against offenders. If charged, offenders would have to appear before the magistrates court. Over the past 5 years, fines have ranged from R300 to R1200 or eight months imprisonment for various offences including fishing in restricted areas, fishing without a license and joining nets together. A review of fines imposed elsewhere in the Cape coastal region revealed that the Olifants River harder fishers, by comparison to fishers involved in harvesting highly valued crayfish

or abalone without a license, were being excessively and inequitably penalized, especially given the relatively healthy status of the harder resource and the low value of the product.

Although a co-management agreement has been drafted to include fishers in the process of compliance and enforcement, progress has been slow. Successful implementation has proved unworkable for the reasons listed below:

Firstly, CNC, due to distance and capacity constraints, is unable to respond to calls from the fishers to apprehend offenders. Secondly, according to the fishers, CNC has only visited the area and patrolled the river on a few occasions over the past two years. Thirdly, involving fishers in policing has resulted in tensions between licensed and unlicensed fishers, which could pose a danger to those reporting offenders. Consequently, the fishers have indicated that the system of enforcement requires review and innovative action is required.

Compliance of rules and regulations is largely dependent on the fishers' perceptions of their legitimacy. For some of the fishers, especially the unlicensed group, some of the regulations can no longer be justified. For example, the extent of the restricted area is considered unjustifiable for the following reasons. The restricted area comprises a section between the sea and a beacon located 1 km upstream, in which no person shall use (1) a trek-net of more than 100 m in length, or (2) any boat or craft for the purpose of speedboating, aquaplaning, waterskiing or for any purpose other than the transportation, at a speed of not more than 10 km per hour, of animals, goods or persons by the shortest route from one point to another.

The location of the beacon is contentious as it keeps fishers out of the richest fishing grounds, yet diamond recovery vessels are permitted to anchor in this area. From discussions with the fishers, it would appear that historically the beacon was of practical use, as it separated fishers using trek-nets from those using gillnets. However, the use of trek-nets has since been banned and the reason for the positioning of the beacon no longer appears to be valid.

The issue of net length is also contentious, especially in the wider lower reaches of the river. Violation of these rules is considered legitimate by some of the fishers. The lack of policing by CNC and the reluctance of the Fishing Committee members to take on an enforcement role, means that so-called 'illegal' activities are taking place on a regular basis.

The increase in license fees, from R20 –R100 during 1998, is also considered unfair and has contributed to illegal fishing activities. Certain fishers, whose license applications were approved, were unable to meet the increased costs. Others did not apply for licenses and continue to operate illegally on the water.

## 5.6 Monitoring efforts

During 1994, 1995, and 1996 the research team worked closely with the Fishing Committee and fishers to establish a community-based monitoring system. The key purpose of this monitoring system was to determine whether fishing effort using the

different mesh sizes was sustainable. The system required fishers to complete catch cards upon return from a fishing expedition. Initially a system of monitors or 'walskipper' was instituted. In each district, a 'walskipper' was appointed and paid to assist fishers in completing their cards on a regular basis, collect all cards at the end of each month, and hand them in to the research team. Although a few fishers did not participate in this programme, most fishers completed cards for the months during which the 'walskipper' system was in place.

The catch monitoring system was implemented in November 1994, and although initially successful, (probably due to assistance from paid 'walskipper'), the system broke down after April 1995, mainly because of the time required to complete the forms. The monitoring system was, however, re-implemented towards the end of 1996 (the beginning of the fishing season) with simplified catch return forms. Statistical analysis of the data provided did not reveal evidence of any overall increase or decrease in the catch rate.

Despite the simplified catch cards, and a commitment by the Fishing Committee members to coordinate the monitoring programme in their districts, the number of cards returned during the 1996/1997 and 1997/1998 period were significantly lower than during the 'walskipper' period and did not yield any statistically relevant information. Clearly, ongoing support and capacity building from the research team and relevant government agency are needed to re-vitalise the monitoring programme. The re-appointment of 'walskipper' is seen as crucial to the success of the monitoring programme.

This raises the very complex and controversial issue of payment to community members for assisting fishers in completing catch cards and coordinating monitoring activities. Firstly, monitoring catches is considered a fundamental requirement for sustainable management of any fishery. Therefore information generated from the programme is vital to sound decision-making regarding the number of entrants, mesh size, net length and closed areas. While the fishers acknowledge the need for this information, regular monitoring has not taken place. Secondly, payment of 'walskipper' sets a precedent and requires an ongoing source of funds. Presently, the government (at national and provincial level) does not have a fund, or even a department or unit that could respond to requests for assistance (both financial and scientific) to manage subsistence resources. Other problems associated with paying monitors includes the choice of monitors. This is especially sensitive in an area where concerns of financial stability and secure year-round, permanent employment are extremely high. Rotating monitors on a monthly basis has been considered, but would require ongoing capacity building and time commitment from the research teams or CNC.

Funds have recently been granted by an advisory forum of the National Environmental Department to the Olifants River Harder fishers to pay for monitors. Discussions are currently underway to reinstate the 'walskipper' system by the start of the fishing season in September 1999.

## 5.7 Allocation of Management Responsibilities

During the period 1995-1997, a series of workshops was held with members of the Fishing Committee and Cape Nature Conservation (CNC) to explore the feasibility and desirability of establishing a joint management system for the Olifants River Harder Fishery. Both groups recognised the benefits of instituting such a management arrangement, given the limited capacity that existed within CNC and the desire of fisheries to become more involved in decisions affecting fishing activities in the estuary. Further workshops were held to allocate management responsibilities and determine which activities/functions could be jointly managed and which would be managed by either the Fishing Committee or CNC (see Table 1). This process was facilitated by the project research team.

**Table 1: Division of management responsibilities**

Management Functions	Single management		Joint management
	Fishing Committee	CNC	
<b>(I) Issuing of licenses</b>			*
1. No. of licenses	*		
2. Maximum number to be issued			*
3. Develop guidelines/criteria	*		
4. Comment on guidelines		*	
5. Management of license fees			*
<b>(II) Regulations</b>			*
1. Mesh size			*
2. Net length			*
3. Restricted area			*
<b>(III) Law enforcement</b>			*
1. Report offenders	*		
2. Determine fines		*	
3. Apply/pay fines		*	
<b>(IV) Other aspects</b>			*
1. Decisions regarding seals			*
2. Decisions regarding diamond boats			*
<b>(V) Gathering and analysis of scientific information</b>			*
1. At a national level		*	
2. At a local level	*		
<b>(VI) Development of the resource</b>			*

In order to implement the various functions, further work and discussion was required to establish criteria, procedures and systems to facilitate a joint management approach. One of the first tasks for the Fishing Committee was to identify assessment criteria for the allocation of fishing licenses. It had been agreed

that the number of licenses would be limited to 65 until further results of the monitoring programme were available. Key considerations were the applicant and his/her family's dependence on the resource for food and livelihood, and the fisher's historical links with fishing. These criteria were discussed and accepted by the broader fishing community and have been used to allocate permits over the past 2 years.

Agreement was also reached regarding the regulation governing mesh size, net length and restricted fishing area, although certain fishers felt that the rationale for declaring a restricted area no longer applied and that the extent of the area needed to be reviewed. CNC and the Fishing Committee agreed that it would be necessary to review these regulations as results from the monitoring became available. Fishing Committee members undertook co-ordinating monitoring efforts in their districts and set in place procedures for collecting catch return cards from fishers which were in turn handed over to the project team for analysis.

With respect to law enforcement, fishers agreed to work with CNC to identify and report offenders. It was agreed that the actual procedures for reporting offenders would need to be determined by CNC and the Fishing Committee and from this a system put in place. However, the Committee's involvement in enforcement has proved to be a major obstacle in the implementation process.

Finally, it was agreed that other issues affecting fishing activities, [such as management of seals, issuing of permits to diamond boats to anchor in the river mouth, beneficiation of the resource, and proposed developments in the area], would be discussed and handled jointly by the two partners.

## 5.8 Preparation of a Partnership Agreement

Once both groups agreed on the division of management duties and responsibilities, the next step in the process was to finalise these arrangements in a formal "partnership agreement". The project team agreed to assist in preparing a draft partnership agreement and facilitating the process further if required.

The draft partnership agreement was workshopped amongst members of the Fishing Committee and CNC and several issues were debated and discrepancies identified. The intention was to involve all fishers in this partnership agreement formulation process and arrive at a consensus document which would be legally binding. Various legal mechanisms were considered. One such mechanism was the establishment of an environmental management co-operation agreement under the National Environmental Management Bill. In addition to clarifying the powers and functions of respective partners, other important management considerations such as conflict resolution procedures, as well as how clauses would be amended and what constituted a breach of contract, were addressed.

At this time, the Fishing Committee sought financial assistance from the Independent Development Trust, to assist them in their tasks. An amount of R20 000 was eventually granted into the Fishing Committee account to enable them to

operate from an equipped office (including a phone and fax machine), to travel to meetings, and to buy nets and repair materials in bulk for sale to local fishers.

By the end of 1997, both the Fishing Committee and CNC indicated that they were ready to proceed with implementation of the co-management proposals and that less input and support would be needed from the project team.

## **6. PROBLEMS ENCOUNTERED WITH IMPLEMENTATION OF CO-MANAGEMENT ARRANGEMENTS**

### **6.1 The Apartheid Legacy – Disempowerment and Mistrust**

The communities now living at Ebenaeser have been subjected to oppressive and discriminatory policies of the Colonial and Apartheid past. These political systems denied people the opportunity to voice their opinions, participate in political processes, and influence decisions affecting their lives. Perhaps the most devastating and disempowering impact on these communities has been the resettlement in 1925 of families living and farming the fertile soils in the vicinity of Lutzville to the lands adjacent to the lower Olifants River. This history of oppression, inferior and inadequate services and facilities, imposed decisions and lack of community representation on decision-making structures has contributed to a feeling of disempowerment and mistrust.

Over the past 10 years, various non-governmental organisations, development agencies and, more recently, government departments, have attempted to initiate development projects and programmes to alleviate poverty, create employment, and improve socio-economic conditions, in the community. Presently, the community is engaged in a land claim process, in accordance with the Restitution of Land Rights Act 22 of 1994, to claim just compensation for land lost in 1925.

Most of these initiatives have been characterised by tensions amongst different groupings, lack of broad community participation in planning processes and inability to reach consensus. For these reasons, many initiatives have failed to proceed further and there is a sense of 'burn out'. People are tired of attending endless meetings and workshops which do not result in tangible benefits. Even the Land Claims Process, which is certain to result in definable tangible benefits, has been ongoing for two years and there is still no clear resolution.

The tensions in the community can be linked to very different ideals and values of the younger versus the older generations, different political ideologies, varying socio-economic conditions in the community, and a changing and weak leadership within the newly elected Transitional Local Council (TLC). A sense of disempowerment is apparent.

Failure to implement many of the initiatives proposed for the Ebenaeser district contributes to this sense of disempowerment and reinforces the perception that the community is unable to implement and manage projects which could improve their quality of life. This disempowerment greatly affects the ability of fishers and the Fishing Committee members to participate on an equal basis with government

partners. This finding is supported by a review of 22 case studies of fisheries co-management undertaken by Sen and Nielson (1996) which found that poorly represented user groups, low levels of education, and lack of empowerment all impeded participation in decision-making.

The fishers have relatively lowly status in the community and are seldom represented on forums dealing with local matters. Thus planning proceeds, initiatives are supported, and decisions are executed with limited or no input from the fishers. The fishers relationship with CNC is also fairly tenuous. Despite on-going discussions with CNC officials regarding the establishment of a collaborative management system, the fisher community remains suspicious of the organisation. A major source of tension is the allocation by CNC of 10 permits for diamond recovery vessels to anchor in the restricted area. Fishers support the concept of a fishing sanctuary at the river mouth, but cannot accept CNC's decision to issue permits for diamond boats anchoring in the sanctuary. Fishers claim that these boats impact on the estuary, and cannot understand how CNC can issue these permits in the midst of current recommendations of the estuary becoming a RAMSAR site. CNC, on the other hand, argues that in the absence of scientific evidence to prove that the diamond boats are having a negative impact on the estuary, it is obliged to issue these permits.

A further issue which has resulted in mistrust, has been the decision by the Provincial Government to increase license fees for exploitation of all natural resources (flower-picking, hunting and fishing). This increase, from R20 to R100, was instituted without any consultation with the fisher community. District CNC officials claim that the decision was imposed by the Provincial Treasurer with no opportunity for comment. However, the fishers felt that CNC should, at the very least, have called a meeting to explain the situation, provide assistance and information on how to respond to the increase, and explore mechanisms for financial adjustment.

## 6.2 Lack of Capacity, Transparency and Accountability

Since the research project commenced in 1994, the Fishing Committee and members of the broader fishing community have participated in several meetings, workshops and capacity building exercises concerned with the sustainable management of the resource. The Fishing Committee has also participated in two capacity building programmes, designed to strengthen institutional capacity and build skills needed to run a committee effectively. During the period 1995-1997, the Fishing Committee made the following progress: prepared a draft constitution; formulated goals and objectives; submitted a funding proposal and received R20 000 for operational costs of the committee; convened and participated in several meetings with the broader fisher community; and negotiated a draft co-management arrangement with CNC.

However, it should be noted that the research team played a major role in initiating, facilitating and supporting these activities.

During this period, Fishing Committee meetings were held on a scheduled basis and the research team was asked to facilitate. Various issues and problems were identified, an action plan prepared, and responsibilities allocated. However, despite the fishers support for and involvement in the monitoring and experimental activities, and their expressed desire to take greater responsibility in managing the resource, when it came to following up on matters, executing management functions and reporting back to their broader constituency, the committee did not perform.

There are various factors which could be contributing to the Fishing Committee's current poor performance, including the historical and political context sketched in 6.1. However, it is our view that key obstacles to the effective functioning of the Fishing Committee and implementation of the co-management system are as follows:

- weak leadership;
- lack of incentives for committee members to participate and fulfill their functions;
- inadequate representation of fisher communities on the committee;
- lack of communication between Fishing Committee and fishers; and finally
- lack of transparency and accountability of the Fishing Committee.

It is the authors' view that the weak leadership in the fisher organisation has been a major obstacle to finalising and implementing the co-management proposals. Furthermore, the lack of accountability has contributed to the breakdown in progress since fishers are demanding to know how the R20 000 has been spent and whether this money has furthered the interests of the fisher community or not. This is questioned since no meetings with the broader fisher community and the CNC were convened throughout 1998, yet all the funds have been spent.

This points to one of the dilemmas facing Development Agencies worldwide, namely, whether funds should be given directly to beneficiary communities; or channelled via non-governmental organisations (NGOs) or other appropriate institutions. The Independent Development Trust (IDT), the development agency providing funds to the Fishing Committee, had a clear policy on this issue, namely that funds should flow directly to beneficiaries to achieve maximum development impact. However, unless capacity building, monitoring and evaluation takes place, it is likely that in communities, where there are low levels of education and limited experience with project management, problems will arise.

Unfortunately, the IDT did not have a monitoring and evaluation system in place, and the Fishing Committee was never asked to provide a report on progress and expenditure. It is our view that this lack of accountability has created tensions within the Fishing Committee, fostered suspicion and mistrust amongst the fisher community, and reduced the committee's overall credibility.

### 6.3 Lack of capacity and commitment from CNC

Although CNC has been supportive of the co-management proposals and participated in most of the discussions leading to the draft co-management

agreement, they have not been proactive in finalising the agreement nor implementing the new system.

In fact, in the recent survey undertaken in May 1999, fishers complained that over the past year, CNC officials had seldom been seen in the area or patrolling the waters. They expressed frustration at CNC's lack of response to calls by fishers reporting illegal fishing activities. In particular, they expressed anger at the increased license fees (from R20 to R100 per annum) introduced in June 1998, and that CNC never consulted them on this issue. Although these fees were imposed by the Provincial Treasurer, and beyond the control of district officials, fishers felt CNC should have provided a forum for feedback and discussion.

CNC admits that they have inadequate capacity and resources to adequately service all areas under their jurisdiction. However, they claim that they have attempted to arrange meetings with fishers, but that these efforts were either cancelled or postponed by the fishers themselves. While the rationale for proposing a more collaborative approach to management was partly to alleviate CNC's capacity problems, the benefits of such a partnership may only be experienced long term. Initially, CNC will have to be proactive and assist with capacity building so that fishers can embrace their new responsibilities.

The restructuring processes occurring within CNC and DEAT have also created uncertainty and caution amongst CNC officials which further impacts relations with the fishers. Budget cuts have greatly impacted duties, responsibilities, and overall effectiveness. These restructuring effects have no doubt also been experienced at the district level.

#### 6.4 Lack of communication between the fisher organisation and community

Over the past 18 months, there appears to have been considerable breakdown in communication and co-operation between the fishing committee and the general fishing community. Over half of survey respondents said that the fishing committee is "doing a bad job of fulfilling their duties" as expected by the general fishing community. These duties include representing the needs and concerns of the fishers, assisting fishers in obtaining and maintaining equipment, managing the number of fishing licenses, and managing the fishing area (in order of importance). Only twenty-four percent indicated that the committee was doing well in fulfilling their duties, 14% felt that the committee was performing satisfactorily, and 7% were not sure.

When asked specifically if the Fishing Committee was representing the fishers' interests, nearly 70% of respondents said "no". Lack of community meetings was the most frequent response given for misrepresentation, as well as a lack of feedback regarding issues important to the fishing community, license problems, and general misrepresentation. Rather than continuing with initiatives that had been put into place in 1997, it appears that relationships and matters of business and interaction have recessed. The same concerns and confusion that were noted in the last report of this project are apparent in this report as well. This seems to be apparent amongst all parties and all parties share responsibility.

## 6.5 Enforcement Problems

The acceptability and legitimacy of the regulations currently in force on the Olifants River Estuary also pose a threat to co-management efforts . There are conflicting views amongst fishers regarding the legitimacy of these rules and they are urgently in need of review. In particular, rules affecting boundaries of the restricted fishing area and the presence of diamond boats in the estuary, need to be reviewed and amended. Unless fishers support the rules and regulations governing their fishery, compliance will not be achieved and conflicts may arise among members of the group and between the fishers and the regulatory authority. Although various legal investigations have been undertaken, and meetings have been held with all relevant stakeholders, no concrete actions have been taken to change the status quo. In all instances government claims that more research is needed to provide empirical evidence before action can be taken. This represents a stumbling block in the process, since the research required would be extremely costly and time-consuming. Furthermore, the concerns regarding the diamond boats are more to do with fishers' dissatisfaction about how decisions are made and the apparent contradictory goals of conserving a pristine environment while at the same time allowing activities which are potentially environmentally damaging.

## 6.6 Limited involvement of research team

On various occasions during 1997 the future role of, and input from the research team, was discussed. By the end of 1997, both the Fishing Committee and CNC agreed that the researchers should play a secondary role in facilitating further action regarding management of the Harder Fishery and that they should assume greater control of the process. However, the research team would continue to provide technical assistance and information regarding analysis of catch data and its implications for management.

In our view, this was a positive development, and suggested that capacity had been strengthened, that both parties were eager to work together, and that the fishers were ready to assume greater responsibilities. Also, since limited research funds were available for 1997, and there were no guarantees that funds would be received for the project in 1998, the research team decided to limit their role to providing technical support and responding to calls for assistance.

During 1998, assistance from the research team was only requested during times of crises, for example, when the license fees were drastically increased in June 1998. During the 1998/1999 fishing season, the community monitoring system collapsed, no catch cards were submitted to the research team or CNC, and no meetings were convened between the fishers and the broader community.

Although the reduced involvement of the research team may have contributed to the breakdown of the monitoring system and co-management efforts, it was our view that the fishers and CNC should take greater control of the process and outcomes. This was supported by all parties.

However, the researchers continue to review and reassess their role in this process and have identified the following shortcomings in their involvement and role:

- taking the initiative too often and not allowing the community to set their own pace;
- not giving sufficient attention and allocating adequate resources to capacity building and skills training;
- ineffective feedback mechanisms to the broader fishing community regarding results of the monitoring and experimental work and its implications for management.

Although beyond the ambit of the research projects' objectives, on reflection, the research team feels that because of its relationship with the Fishing Committee, it should have provided guidance to the Committee on financial reporting and auditing requirements of donor agencies.

Although communication with the leadership remains difficult, communication with other members of the Committee and community suggest that people are eager to resolve these problems and move forward with assistance from the research team.

## 6.6 Lack of Supportive Government Institutions

A concern that has been constantly raised by the project team, is the need for institutional support from a large-scale government agency to provide capacity building and scientific support to this co-management initiative on an ongoing basis. Financial support for this initiative has been obtained from different research agencies since 1994, and much of the input from research personnel has been provided on a voluntary basis. Since funding from research or development agencies has to be applied for on an annual or biannual basis, there is no guarantee that funds will be forthcoming for research and community development activities which emanate from such participatory research approaches. This co-management initiative which evolved from initial research activities should be supported by a department or unit within DEAT responsible for subsistence fisheries management or charged with fostering partnerships between government and resource user groups. The Chief Directorate of Marine and Coastal Management or the newly established Resource Partnerships Directorate within DEAT should take on these functions. The absence of large-scale supportive institutions has been identified by Ostrom (1994) as one of the threats to sustainable community governance of resources.

## 7. THE WAY FORWARD

There are clearly a number of factors and events that have contributed to the breakdown in efforts to implement a community-government management system for the Olifants River Harder Fishery. Some of these factors such as the illegitimacy of certain rules can be addressed. Others, however, are part of South Africa's socio-political legacy and will take decades until society and government is transformed.

The recent follow-up survey in the Ebenaeser districts in May 1999, provided an opportunity to hear the views and concerns of fishers. Dissatisfaction with the leadership of the FC, lack of representation on this structure as well as lack of accountability are major issues of concern. Election of a new FC, which is representative of the interests of fisher groups, is the first step towards rectifying the situation. Although elections are imminent, mobilization of individuals and groups in the community to challenge existing leadership and bring about the necessary changes in the organisation will be required. The project team will need to play a proactive role in facilitating this process and has set up meetings with user groups to discuss a way forward.

Obtaining broad agreement on the role and responsibilities of the FC and amending the draft constitution to reflect these expectations, would be another important step. Formal adoption of the constitution would provide a framework of understanding between fishers and the committee. Mechanisms for ongoing fisher participation in management decisions and activities need to be clarified and implemented. Scheduling regular community meetings, providing ongoing feedback to fishers, setting up good systems of communication between district committee members and their constituencies, and the appointment of a community-based project facilitator, would go some way towards achieving greater fisher involvement in management.

Given the limited communication that took place between CNC and the fishers during 1998, it would be essential for them to meet and clarify their respective day-to-day management responsibilities and decision-making powers. This means that the division of management responsibilities will need to be reviewed and amended in light of experiences gained over the past two years. For example, the role of the FC in enforcement will need to be reviewed.

The whole issue of the legitimacy of the rules also needs to be addressed. It is suggested that one of the first tasks of the newly elected FC should be to request a legal opinion on the legality of the diamond boats anchored in the restricted area. Secondly, a meeting of all fisher groups should be convened to determine under what conditions, if any, the presence of the diamond boats could be tolerated. Unless the rules make sense to and are accepted by the fishers, compliance will not be achieved. In the meantime, it may be necessary for CNC to take total responsibility for enforcement.

Linking the issuing of licenses to monitoring responsibilities is a further proposal for revitalising fisher involvement in monitoring activities. This could be achieved by requiring that all fishers complete a certain number of catch cards for each month during the fishing season and hand them to the project team for analysis. Although we believe that this analysis should be performed by government, at the present time neither CNC nor DEAT have the capacity to provide this technical support to subsistence fishing communities. This proposal is consistent with the notion that as individuals or organisations acquire increased decision-making powers, so do their responsibilities increase. This is not a new idea and has been supported by the FC but has not been discussed and endorsed by the fishers themselves. However, this responsibility will only be embraced by fishers, if the long-term benefits of monitoring are understood and supported by the community.

This points to the need for ongoing education and capacity building of the fishers with respect to concepts and tools for sustainable resource management as well as on subjects that are essential to understanding the socio-economics of resource management, such as governance structures and incentives for compliance and stewardship. Building capacity of the fisher organisation and skills training of office bearers will also be required. Changing the attitudes of government officials and exposing them to the principles and procedures of alternative forms of management which involve users, is also an ongoing capacity building task. While this capacity building role can be played initially by the project team or an NGO, this role will ultimately need to be fulfilled by a government agency that is adequately resourced and staffed. The initial results from workshops and surveys undertaken as part of the investigations of the Subsistence Fisheries Task Group suggest that such a capacity building and support unit is urgently needed at national government level to ensure the sustainability of such co-management initiatives.

This analysis suggests that before co-management arrangements can be implemented, there are certain conditions that must be met and certain initial feasibility stages that must be completed. In the case of Ebenaeser, it could be argued that negotiations on the co-management agreement were being undertaken before institutional feasibility had been adequately established. This supports Borrini-Feyerabend's (1999) framework for understanding and assessing where and why participatory management processes get stuck or breakdown. However, the obstacles encountered in this case study are not unexpected or unusual when reviewing the findings on co-management projects worldwide. What this analysis does reinforce is that certain conditions must be met before a co-management system can be successfully implemented not least of which are the following: the presence of representative, legitimate and accountable institutional structures; strong leadership; mechanisms for user participation in planning and management, commitment by the regulatory authority to change its management style, mutual respect and trust between partner institutions; legitimacy of the rules and regulations; clear division of management responsibilities (but within a dynamic system); support from large-scale government institutions; conflict resolution mechanisms, and ongoing capacity building..

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