
Control of Foreign Fishing (CFF) Workshop

14th-15th November 2005

Dar es Salaam, Tanzania

Results of the Workshop Evaluation Questionnaire



MRAG

DFID Department For
International
Development

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1 Introduction

The Control of Foreign Fishing (CFF) workshop was held in Dar Es Salaam, Tanzania between 14th and 15th November 2005 to increase regional awareness of economic models to maximise the benefits through application of the CFF model developed under the DFID Fisheries Management Science Programme (FMSP).

A questionnaire was given to participants of the workshop in order to obtain feedback on:

- The presentation and content of the workshop
- Change in awareness, knowledge and perceptions related to CFF
- The CFF model
- Potential uptake and future use of the CFF model

2 Feedback on the workshop

2.1 Overall comments on the workshop

Nine participants from the workshop completed the questionnaire, with representatives from Kenya Fisheries Department, Seychelles Fishing Authority, Mozambique Fisheries Ministry, Somalia interim government and the EU/SADC MCS Programme (see Annex for list of respondents). 56% of participants reported the workshop to be very useful, 22% extremely useful and 22% quite useful (Figure 1).

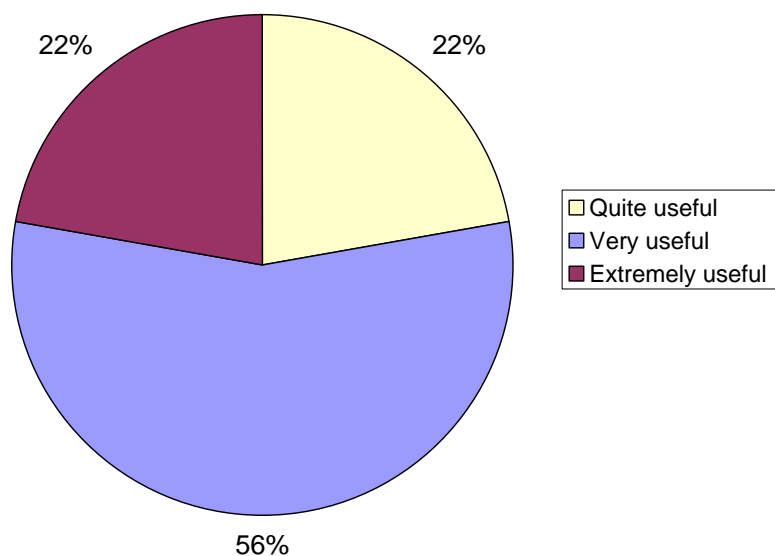


Figure 1 Participants rating of the workshop

Some of the general comments of the workshop are provided in Table 1. In addition to the positive feedback there were also comments that it would be useful to have a manual and user-friendly version of the model available for participants and for additional case study examples. It had been indicated to participants however, that the model was not primarily designed as a stand-alone application or suitable for distance learning. This was further reinforced by the number of questions raised during the workshop. It is feasible however, to develop a training of trainers workshop,

where the model could be further refined, including help menus and a comprehensive user manual.

Table 1 Comments on the workshop

'An excellent attempt at addressing the issues in the Control of Foreign Fishing at a regional level. Much more needs to be done to establish MCS in all countries and to put in practice what has been learned'

'The workshop was well organised and presented. The mathematical model was greatly simplified for comprehension by the participants. It would have been good to present the results of the case studies where real data was used in the model.'

'An eye opener'

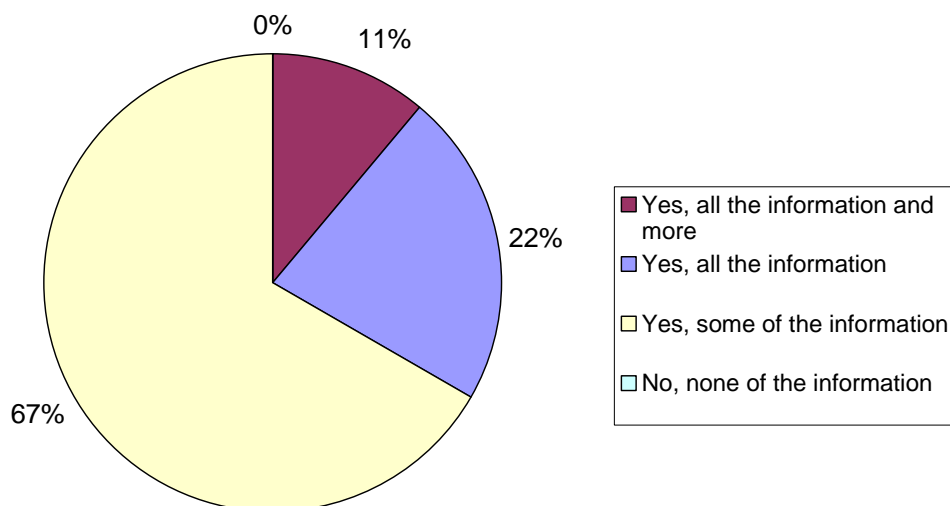
'The workshop materials are important information for setting bilateral agreements for sustainable fishery rent and control of foreign fishing.'

'A good primer to the subject'

2.2 Provision of information

Overall, the majority of participants felt that most of the information they required from the workshop was provided at this stage (Figure 3). 67% of participants felt the workshop had provided some of the information they required; 22% all the information and 11% all the information and more.

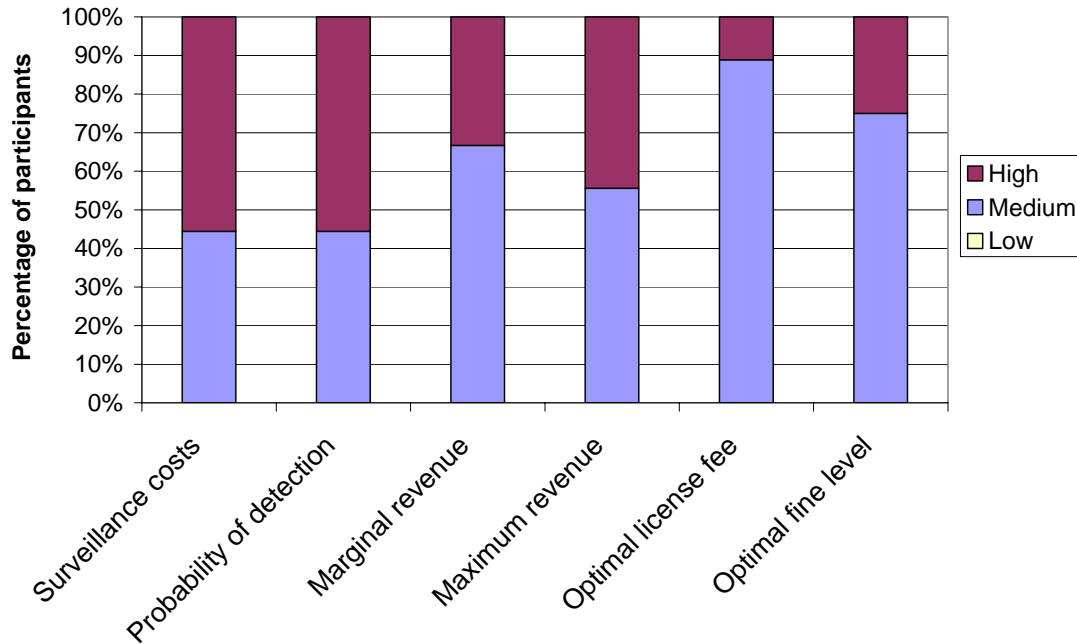
Figure 2 Provision of information required by the participants



2.3 Clarity of workshop

The workshop gave an overview to the CFF spreadsheet model and explanations on the key principles used within the model. Figure 3 illustrates that participants scored the clarity of descriptions and illustrations with highs and mediums. There was relatively higher clarity of principles such as surveillance costs, probability of detection and maximum revenue compared to principles such as the optimal licence fee and optimal fine level.

Figure 3 Clarity of descriptions and illustrations of CFF principles within workshop



3 Changes in awareness, knowledge and perceptions

3.1 Changes in awareness

Figure 4 Increased awareness of the CFF model before and after the workshop

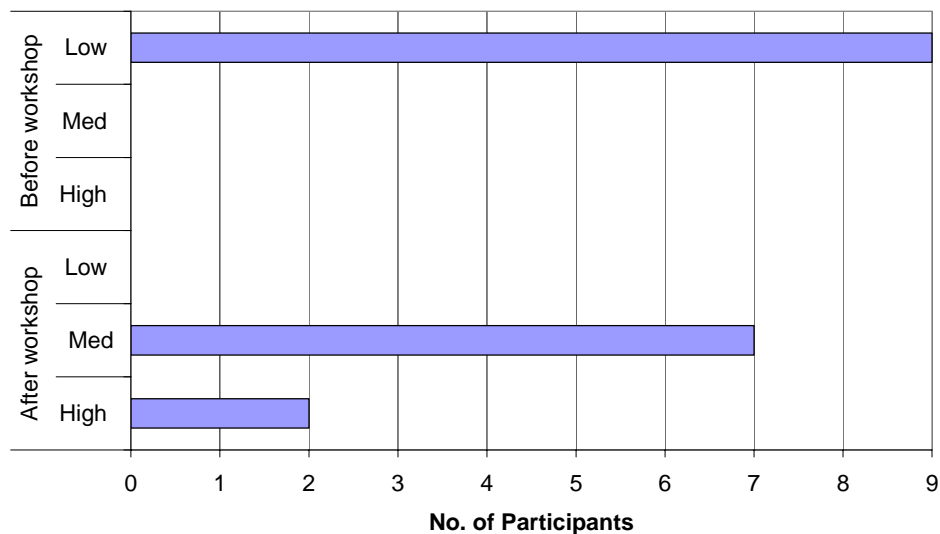
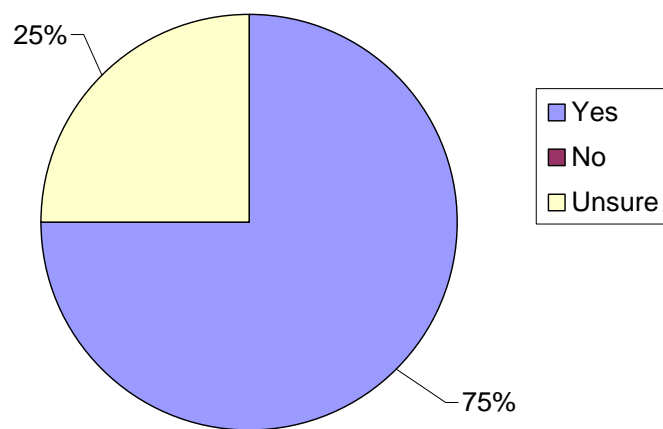


Figure 4 illustrates the increased awareness and understanding of the CFF model before and after the workshop. All participants had a low understanding of the CFF model before the workshop with 7 reporting a medium increase in this understanding and 2 a high increase.

Figure 5 illustrates the increased awareness of potential outcomes of national and regional CFF strategies through use of the model. 75% of participants reported an increased awareness.

Figure 5 Increased awareness of potential outcomes of national and regional CFF strategies through use of the model



3.2 Changes in knowledge

In addition to increased awareness of the model and outcomes of CFF strategies, the workshop also resulted in increased knowledge on a range of topics. These are illustrated in Figure 6 and show the percentage of participants with an increased knowledge in these areas.

The highest increase in knowledge was for topics covering setting fine levels for maximum benefits; the role of licenses; the importance of CFF strategies and setting licenses in relation to net benefits of fishing within the EEZ. Lower increases in knowledge were achieved for the importance of catch-effort data.

Participants were also able to increase their knowledge in different aspects of the CFF model, as illustrated in Figure 7. Most participants reported a medium or high understanding.

Rather than only relying on the perceptions of the participants, a series of questions were also provided in order to test this level of understanding. In two of the questions concerning the importance of setting maximum fines and how to increase the chance of surveillance detection over 80% of the participants gave the right answer. All the participants answered correctly for the question on how to ensure total revenue covers surveillance (Figure 8).

Figure 6 Percentage of participants with increased knowledge on a range of CFF related topics

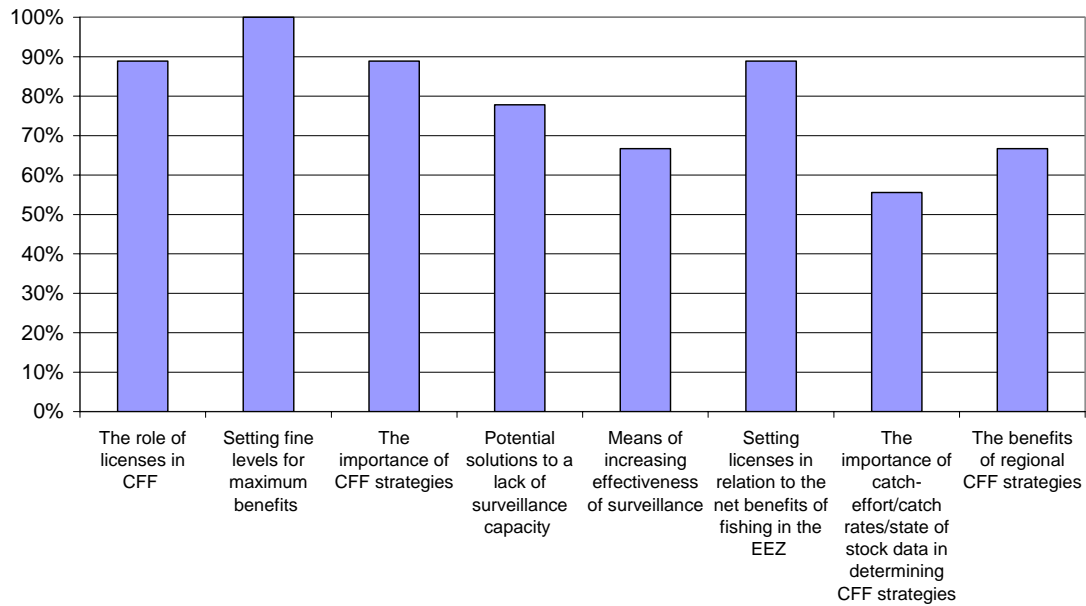


Figure 7 Participants understanding of different aspects of the model

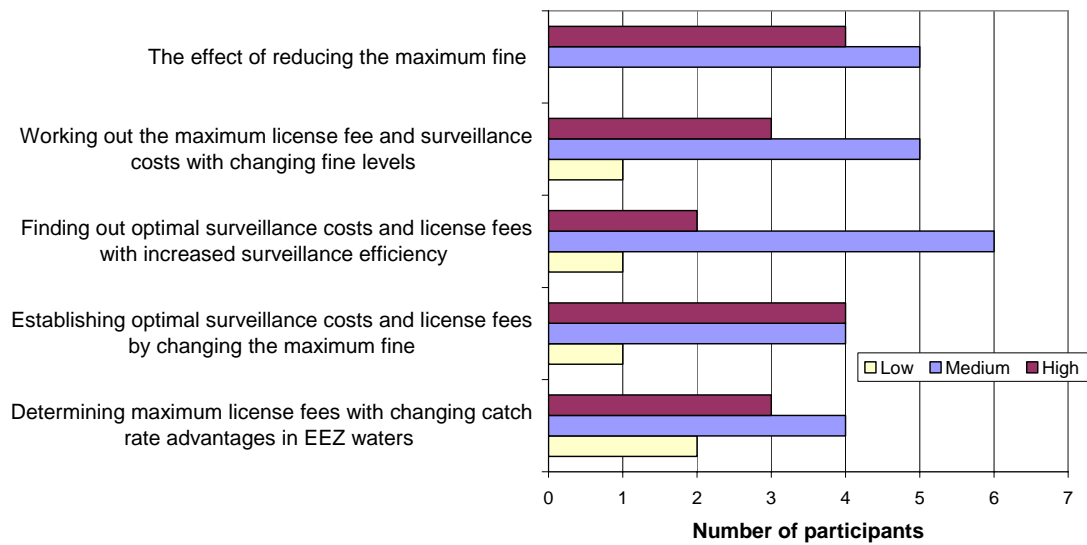
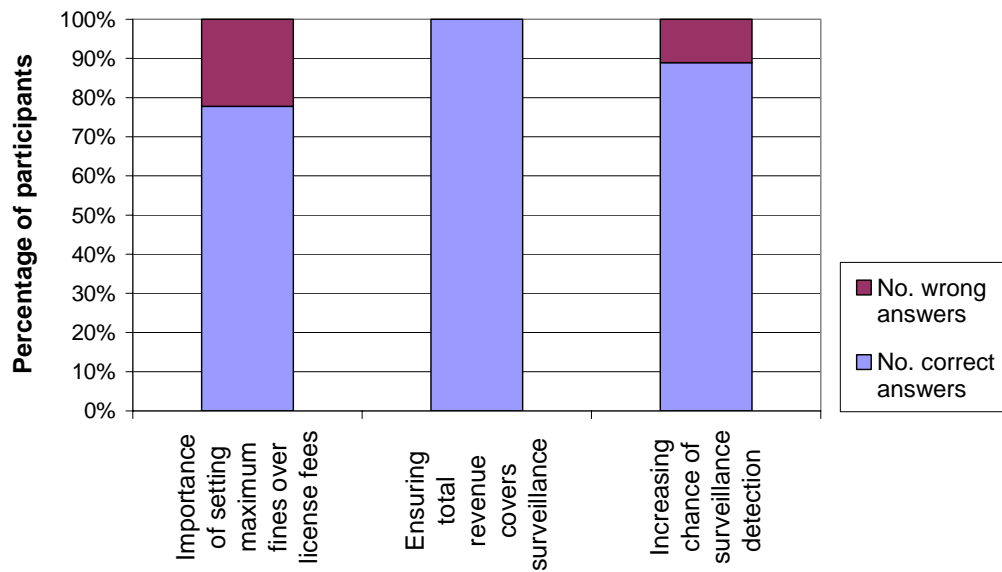


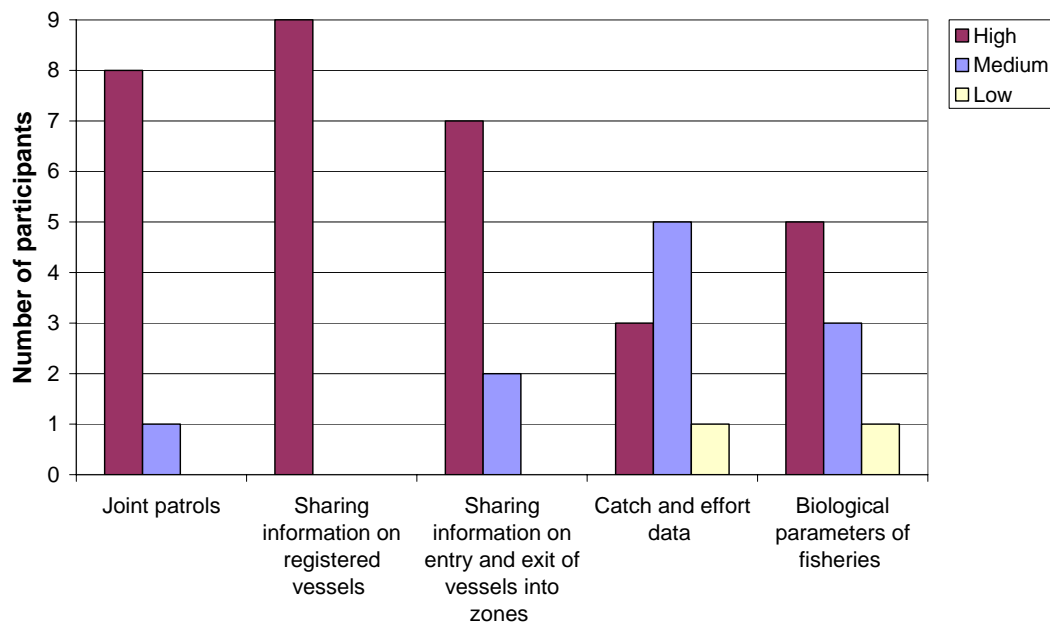
Figure 8 Responses to questions to test participant understanding of model concepts



3.3 Changes in perceptions

Following the workshop the participants gave their perceptions on the importance of regional cooperation for different MCS activities. The majority felt that joint patrols and sharing information on registered vessels and sharing information on entry and exit of vessels was important. There was more of a mixed response for sharing catch and effort and biological parameters of fisheries (Figure 9).

Figure 9 Perceptions of the participants on the importance of regional cooperation for different MCS related activities



4 Feedback on the CFF model

4.1 Comments on the model assumptions

Participants were asked for their comments on the model assumptions (Figure 10) and how these could be improved to make the model more realistic or tailor it to their fishery (Table 2).

Most participants commented that the assumption that there is only one fishing fleet is not realistic. In most of the countries, represented at the workshop, there are a range of different fleets and gears in operation such as purse seiners; long-liners and artisanal fisheries targeting the tuna stock. In some countries the assumption that increased expenditure on surveillance increases detection holds, whereas in others participants commented that the amount of investment is large before a change in detection is realised. There were mixed reactions to the assumption of one surveillance platform. In some countries this is realistic, whereas in others there are likely to be a range of platforms including sea and air surveillance.

Figure 10 Participants comments on the model assumptions

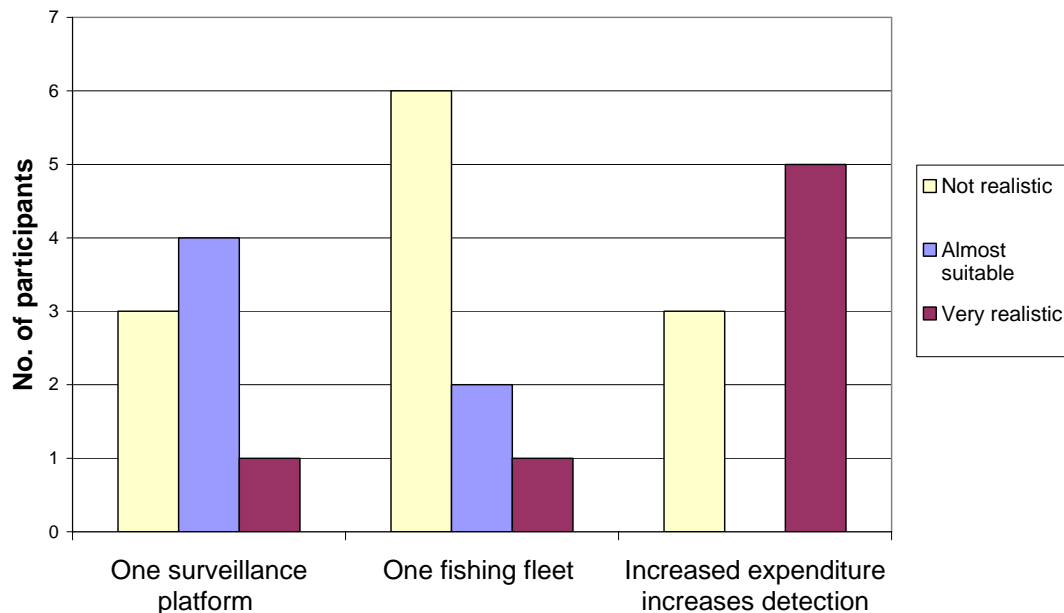


Table 2 Comments on the assumptions used in the CFF model

Assumptions	Comments	Country/Institution
One surveillance platform	No surveillance programme as yet	Kenya
	Patrol vessels for EEZ	EU/SADC MCS
	Air, Sea and Land options	EU/SADC MCS
	Suitable for most countries in the region. However in Somalia for there is a complete lack of surveillance	SANDI Consulting and Associates (Somalia)
	Applicable but not very efficient	Seychelles fishing authority
	Use a chartered plane only	EU/SADC MCS
One fishing fleet	Both long-line and purse seine	Kenya
	Purse seine, long-line, trawlers, artisanal	EU/SADC MCS
	There are several fleets with multiple gears	EU/SADC MCS
	A number of major fisheries excluded	EU/SADC MCS
	Many different types of fishing vessels e.g. purse seines, long liners, and often fleets from more than one foreign country	SANDI Consulting and Associates (Somalia)
	Applicable purse seine fleet also present	Seychelles fishing authority
	The presented model was simplistic and did not reflect major complex real life situations	Kenya
	Purse seine and long lines	EU/SADC MCS
Increased surveillance expenditure increases chance of detection	Using the model a high capacity vessel would increase probability of detection without necessarily costing more	EU/SADC MCS
	It is almost impossible for most countries to invest heavily in surveillance to a point whether detection leads to increased revenue.	SANDI Consulting and Associates (Somalia)
	Many cases of detecting reported by local fishermen	Seychelles fishing authority
	It requires considerable time and resources to track down illegal fishers	Kenya
	This has happened over the past five years in Tanzania	EU/SADC MCS

4.2 Suggested improvements to the CFF model

Participants gave various suggestions for improving the model as illustrated in Table 3. These comments included tailoring the model to include more than one fishing fleet, providing case studies with actual data, provision of a manual and on-line help to be able to use the model outside of the training workshop.

Table 3 Suggested improvements to the model

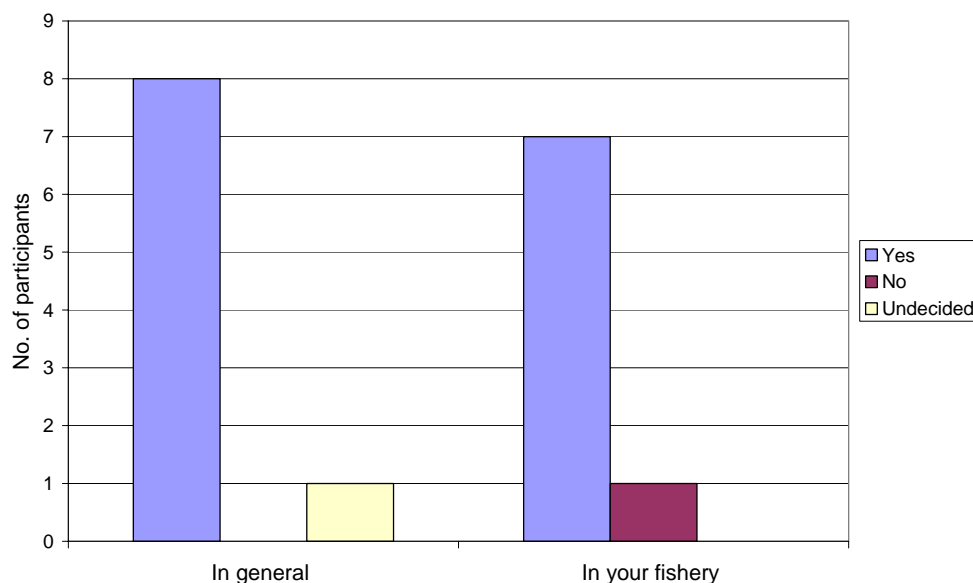
Suggested improvement or changes to the model	No of participants
Inclusion of two methods of fishing: long lines and purse seines	✓
Use of data for an actual fishery	✓✓
Reduce restriction of assumptions	✓
Take account of effort levels	✓
Consolidate model within one workshop	✓
International database open for use by foreign fishers and coastal states	✓
Manual and on-line help	✓

5 Uptake and potential future use

5.1 Potential for using the model in the future

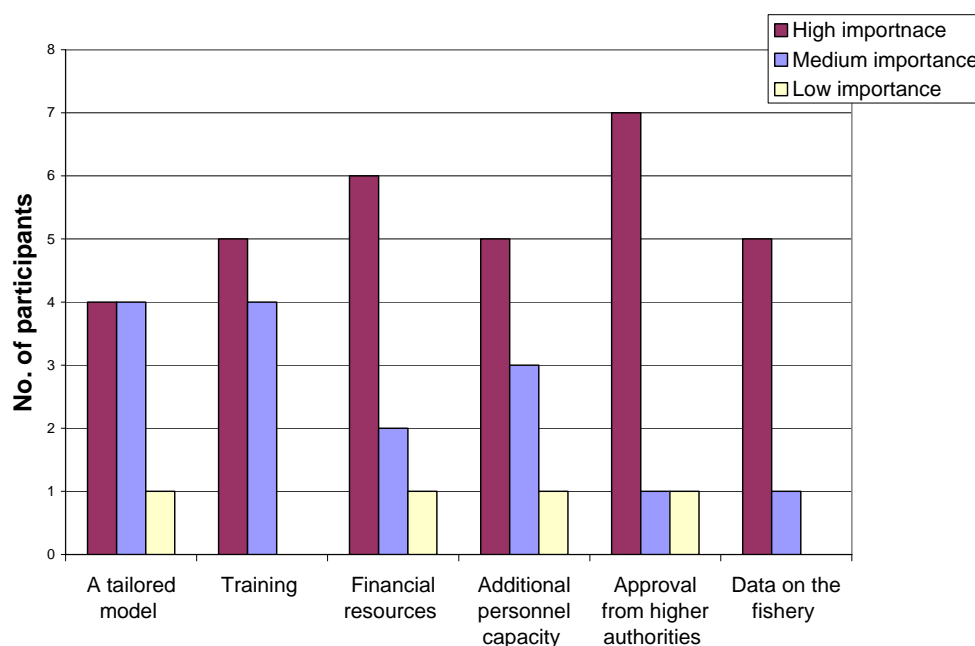
The majority of participants felt that a tailored CFF model would be potentially useful in general and for their fisheries for designing or reviewing MCS strategies (Figure 11).

Figure 11 Participants view on whether a tailored CFF model is potentially useful for designing or reviewing MCS strategies



In order to be able to use the model in the future participants commented on what support would be required. Financial resources and approval from higher authorities were some of the important factors (Figure 12).

Figure 12 Importance of the following elements to apply the model



5.2 Constraints in applying CFF measures in practice

Participants also commented on the constraints in applying CFF measures in practice (Table 4). Changing laws and policies were among the constraints in making changes to the license fee or level of fines. Other problems with raising the fine levels were related to the increased risk of bribes and the uncertainty in recovering the full amount of the bribe.

Table 4 Constraints when applying Control of Foreign fishing measures in practice

Change	Constraint	No. responses
Changing the License Fee	If lowered can result in conflict (at a regional level)	✓
	If increased can chase fishers away/Loss of business	✓✓
	Changing the law/Slow administrative process	✓✓✓
	International competition	✓
	Lack of good quality data or stock indications	✓✓
	Relies on a policy decision	✓✓
	Determining optimal fee	✓
	Risk associated in setting maximum license	✓
Changing Fine Levels	Changing the law and/or policy	✓✓
	Enforcement	✓
	High fines may encourage bribes	✓✓
	It is uncertain that large fines will be recovered	✓
	Lack of good quality data & information on the value of vessels	✓
Implementing Fine levels	Enforcement	✓
	High fines may encourage bribes	✓✓
	It is uncertain that large fines will be recovered	✓
	Legal system	✓✓
	Cases settled out of court	✓

Some of the wider constraints in applying effective MCS strategies are summarised in Box 1 below.

Box 1 Constraints in applying effective MCS strategies

- *Lack of basic patrol and monitoring systems*
- *Finance, political will, regional cooperation, cultural change*
- *Divergence of opinions in Ministries*
- *Budget availability and high costs of MCS*
- *Human resources, lack of capacity & training*
- *Limited surveillance*
- *Inadequate government regulation and policy*
- *Use of navy with focus on security rather than fisheries management*

5.3 Follow up from the workshop

A number of participants indicated that they would undertake follow-up actions following the workshop. Examples of these are provided in

Table 5 Follow up actions

Kenya		<ul style="list-style-type: none">• Obtain catch data from fishing fleets to improve data in the CFF model• Use lessons learned from workshop to support the extension of national and regional MCS activities
Seychelles		<ul style="list-style-type: none">• Revisiting the model application to Seychelles Tuna fishery
EU/SADC Project	MCS	<ul style="list-style-type: none">• Disseminate workshop outputs• Review model and consider providing training material to senior MCS operatives in the region• Recommended the model as an example of using information to assist decision making

Other suggestions for follow up included:

- Develop a regional forum for exchanging information for example through meetings and workshop and agreed through signed MOUs between the relevant countries;
- Produce a user-friendly version of the model with a manual;
- Employ a local fisheries economist to work with the Tanzanian government to consider the usefulness of the model

Suggestions for application of funds were provided by participants as illustrated in

Box 2 Potential sources of funds for support for future use of the CFF model

- *World Bank MACEMP Programme*
- *DFID,*
- *EU*
- *Italian donors*
- *SADC programme (few months remaining)*

6 Annex

6.1 End-of Workshop Questionnaire

Introduction

This end-of workshop questionnaire has been designed to get feedback on:

- A. CFF strategies
- B. The CFF model
- C. The workshop
- D. Follow up

The results are confidential in the sense that no names will be associated with the results. However we will hope to use compiled results to i) improve on the model; ii) improve on future workshops; iii) report on the results of the workshop and potential uptake of the generic lessons for CFF. *The questionnaire is short and should take 15-20 minutes to fill in. We appreciate your time in completing the form.*

Please complete the questions below and return to Rob Wakeford **before** the end of the workshop.

Questionnaire

General Information

Name	Organisation	
Position	Email	Telephone

Part A Lessons learned on CFF strategies

- 1) Did the workshop increase your awareness of some of the issues on developing national and regional MCS strategies to control foreign fishing?

Yes	
No	

- 2) Please indicate by ticking the boxes below what you have learnt through attending the workshop

Issue	Tick if applies
i) The role of licenses in CFF	
ii) Setting fine levels for maximum benefits	
iii) The importance of CFF strategies	
iv) Stock assessment parameters	
v) Potential solutions to a lack of surveillance capacity	
vi) Means of increasing effectiveness of surveillance	
vii) Setting licenses in relation to the net benefits of fishing in the EEZ	
viii) The importance of catch-effort/catch rates/state of stock data in determining CFF strategies	
ix) The benefits of regional CFF strategies	

3) How would you score the importance of regional cooperation in the following activities? Please tick the relevant boxes

	High importance	Medium importance	Low importance
i) Joint patrols			
ii) Sharing information on registered vessels			
iii) Sharing information on entry and exit of vessels into zones			
iv) Catch and effort data			
v) Biological parameters of fisheries			

Part B The CFF model

D) Understanding the basis model concepts

1) How would you rate your overall understanding of using the model to determine optimal revenues from the control of foreign fishing?

Please tick the relevant boxes:

	Low	Med	High
Before workshop			
After workshop			

2) Were the spreadsheet models easy to use?

Yes	
No	
Not sure	

3) Following the practical what is your level of understanding on the following aspects of the model?

Please tick the relevant boxes

Level of understanding	Low	Med	High
i) Determining maximum license fees with changing catch rate advantages in EEZ waters			
ii) Establishing optimal surveillance costs and license fees by changing the maximum fine			
iii) Finding out optimal surveillance costs and license fees with increased surveillance efficiency			
iv) Working out the maximum license fee and surveillance costs with changing fine levels			
v) The effect of reducing the maximum fine			

4) Complete the following multiple choice questions below, and circle the correct answer (a, b or c) in each case:

4.1. Is it more important to set a maximum fine or a maximum licence fee?

a)	Maximum fine
b)	Maximum licence fee
c)	The same importance

4.2. If the license fee is a low proportion of the maximum revenue how do you ensure that the total revenue covers surveillance?

a)	Through high fines and efficient surveillance
b)	Through high fines only
c)	Through allowing discounts on the license fee

4.3. How can you increase the chance of detection of illegal vessels?

a)	Increase surveillance
b)	Increase license fees
c)	Increase fine levels

5) Did the spreadsheet model game help in increasing your awareness of the potential range of outcomes from national and regional MCS strategies?

Yes	
No	
Not sure	

II) Comments on the model concepts

1) How realistic do you find the following assumptions used within the model? Please tick one of the boxes below, and indicate what the reality is in your fishery.

Assumption	Tick which applies:			Comment on: Realities in your fishery
	<i>Not realistic</i>	<i>Almost suitable</i>	<i>Very realistic</i>	
i) There is one surveillance platform in the fishery				
ii) There is one fishing fleet (i.e. using one particular gear such as long lines)				
iii) Increasing surveillance expenditure increases the probability of detecting illegal vessels				

2) The model game was designed as a teaching aid. What features would you like to see developed further?

--

III) Applying recommendations from the model in practice

1) What constraints are there in practice when:

i) Changing the license fee	
ii) Changing fine levels	
iii) Implementing fine levels	

2) What constraints do you currently face in implementing an effective MCS Strategy?

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Part C The workshop

1) How would you rate the workshop?

Please tick:

Not useful	Quite useful	Very useful	Extremely useful

2) Did the workshop provide you with all the information you were looking for?

Please tick:

Yes, all the information and more	Yes, all the information	Yes, some of the information	No, none of the information

3) Were the following basic principles of CFF clearly described and illustrated?

Please tick the relevant boxes

Principles	Low (Not clearly described and illustrated)	Med (Quite clearly described and illustrated)	High (Very clearly described and illustrated)
i) Surveillance costs			
ii) Probability of detection			
iii) Marginal revenue			
iv) Catch and effort data			
v) Maximum revenue			
vi) Optimal license fee			
vii) Optimal fine level			

4) What general comments do you have on the workshop?

Part D Follow up

1) Do you feel that a tailored CFF is potentially useful for designing or reviewing MCS strategies...

	No	Yes	Undecided
...in general?			
.... In your fishery?			

2) What are the supporting elements you would require to apply the model to your fishery, and how important are these elements?

Please tick boxes below:

	High importance	Medium importance	Low importance
i) A tailored model for your fishery			
ii) Training			
iii) Financial resources			
iv) Additional personnel capacity			
v) Approval from higher authorities			
vi) Data on the fishery			

3) What resources could be applied for to support using the model, and do you need support in applying for these resources?

Donor/Source of Resources (Please list)	Require support in applying for resources? (Yes or No)

4) How could your department use the outcomes of this workshop to inform the national or regional MCS strategies? Please comment

5) What follow-up actions to this workshop do you envisaged carrying out? Please comment

See over

5) Who else in your department or institute should be sent information on the CFF model (please provide email & postal addresses)

Name	Email	Institution and postal address

6.2 Questionnaire respondent

	Name	Institution/Department	Position
1	Kennedy	Kenya Fisheries Department	
2	Ian Shea	EU/SADC MCS Programme	MCS OPS specialist
3	Razack Lokina	EU/SADC MCS Programme	Fisheries Economist
4	James Wilson	EU/SADC MCS Programme	Economist
5	Rashid Aman	SANDI Consulting & Associates	Director
6	Michel Marguerite	Seychelles Fishing Authority	Principle Economist
7	Martha Mukira	Kenya Fisheries Department, Marine Division	Senior Fisheries Officer
8	Manvel Castiano	Mozambique Ministry of Fisheries	Head of Department
9	Richard Aukland	EU/SADC MCS Programme	IT Specialist