# OBSERVER AND LANDING SITE PROGRAMMES

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## INTRODUCTION

This text refers to a number of other documents that will be made available on CD Rom. It serves here to create awareness of the availability of this material.

These guidelines and examples are a collection of articles related to observer programmes and landing site programmes. Most of the articles were written for observer programmes, however they are all very relevant to landing site-sampling programmes as the underlying issues are similar. Some of these common areas are training, programme development, documentation, problem areas, management and data collection.

The compilation is intended to give practical information for any organisation considering developing an observer or landing site-sampling programme. The documents should assist you in making you aware of some of the problem areas and in developing a successful programme that will be suitable for your needs.

The following sections are included:

- **Developing an at-sea observer programme**: This is a paper with some practical details of things to consider when developing a programme.

- **Developing a simple landing site sampling programme**: This brief note includes some key points not to be overlooked when considering such a programme.

- **Report on a Commercial Sampling Programme**: This is the final report of a project that ran for 2.5 years to develop a large at-sea observer programme. It is a complete report and holds vital information and ideas for any country wishing to develop or upgrade an observer programme.

- The last section holds many examples of practical documentation from an observer programme. This includes curriculum, lesson guides and other examples that will be of great assistance to someone developing a programme. A full explanation is given at the start of the section.

## DEVELOPING AN AT-SEA OBSERVER PROGRAMME

### INTRODUCTION

This is an overview on how a low-cost fishery observer programme can be designed to suit the needs of developing countries. Such an observer programme can incorporate both the features of biological and catch data collection for stock assessment purposes and information on compliance to fisheries laws for enforcement purposes. A system can be developed to work in a sustainable low cost manner utilising and training locally available personnel. This

paper focuses on aspects related to the framework developing countries face when they want to establish an observer programme.

## BACKGROUND

Fishery observers should be deployed to observe, record and report. They should always be differentiated from fishery inspectors or other law enforcement officers, such as Navy, Coast Guard or Police, as they should not hold any enforcement powers. This is very important for the integrity of the observers and the programme.

In summary the aims of such a programme could include:

- To monitor the compliance of domestic and foreign fishing fleets to the nations fisheries laws and regulations.
- To gather biological information and information on fishing techniques and gear.
- To promptly report pollution to the proper authorities.

## DEFINING YOUR NEEDS?

Identifying and defining your needs is a vital question that you must address before you design or implement an observer programme. Once questions such as how many vessels need observers and what type of information is required, have been answered you can then assess the type of framework you require. This outline framework will include the cost, recruitment, training and management requirements to support your needs.

## EVALUATING FEASIBILITY

Following this mapping out of needs and requirements you will need to evaluate the feasibility for developing and sustaining such a programme. Do you have the necessary resources to run and utilise the programme? At this point all stakeholders should be brought in to discuss the programme and determine the possible obstacles to an effective and efficient observer programme.

Below some of the factors that should be considered when assessing the feasibility.

- **Cost:** Even in a low cost programme you will need enough money to employ and train the observers. One option is to put the cost onto the vessels via a levy or fee. This is a very common system and can be directly related to the vessels carrying observers or it can be spread across the whole fleet at a flat rate per vessel. Whatever system you choose be sure that there will be enough money to cover salaries, equipment and training costs.
- **Observer Salaries:** The salary should not be too low to encourage corruption but be in line with other similar jobs in the country. It is worth considering if you want to pay the observers only when at sea or when on land waiting to be deployed. It is possible to have a small monthly salary topped up with a daily at-sea allowance. This gives observers a better social and economic position and as long as the monthly salary is not too high it will not encourage them to stay on shore. Payment of salaries and sea allowances should, if possible, be paid on a

monthly basis even when the observer is at sea, this gives peace of mind to observers who leave reliant families at home.

- **Technology:** In order to keep the programme at a sustainable cost the need for high technological equipment should be considered before investing in any such equipment. Electronic scales, electronic measuring boards and portable computers are some of the electronic equipment that observers may want but none of them are essential. Observers usually do require some boots and overalls, a fish basket, a knife, a basic measuring board and a clip board for their forms. The programme will no doubt need a least one computer to enter data and organise the work and analysis but it is unlikely that the observers will need any high technology equipment unless performing some special scientific work.

- **Use of data generated:** When the programme is designed take into account the personnel that are going to use the generated data. It can be that a decision to collect scientific or compliance data was made at a senior level and that the scientists or inspectors that are expected to utilise this data also require training. Also when defining needs for data types and formats close co-operation with the end users is required.

- **Motivation:** The observers need to be taken seriously. They will not perform if they feel neglected by the fisheries authorities. Appropriate reactions on reports as well as good communication are necessary factors to create a good programme. Explanations on why the different tasks are performed together with a basic course in fisheries management are necessary for the observers to get a more holistic picture of their work.

- **Corruption:** The observers are most of their time working in an intimate environment with the fishing industry. It is obvious that they can be easily exposed to corruption. This issue is connected to motivation. A good team spirit is necessary as well as a feeling of being backed up by the authorities. Ways to reduce corruption is to deploy two observers on each vessel, provide uniformed work clothes, react appropriately to harassment of observers, design manuals and forms for reporting, arrange regular workshops where information and relevant issues are discussed between all stakeholders. Always respond professionally and strongly when any form of corruption is brought to your notice.

- **Training and recruitment:** You cannot expect the observers to perform unless they have been trained to do so. You have to determine the training needs regularly to keep the programme up to date and to ensure the wanted output. This could be a course of a few weeks up to a whole year depending on the tasks they are expected to perform and the entry level into the profession.

- **Safety:** The observers need to be equipped with basic safety gear and training. Life at sea is tough. You have to care about their lives. They will not care about your worries as long as you do not respect their situation.

## THE OBSERVER STRUCTURE AND TRAINING

### *The Structure and it's Philosophy*
The observers should be recruited with a basic school education. You need to identify the type of information that is needed and the importance and quantity required. You have to make sure that the observers are capable of producing a reliable output based upon basic school

education and short vocational training courses. It is essential to keep the programme simple and basic to make sure that you develop the programme realistically.

Recording of violations and basic random catch sampling is vital to all observers, but the need for more advanced biological information is not essential for the whole group. It is therefore possible to develop a training plan that suites this. A tiered system associated to the tasks and training of the observers can for example be developed, this could include for standard, intermediate and advanced levels.

### The Training
The training programme can facilitate competency-based module training with on the job training between the respective levels. This system also allows the management team to select only capable and suitably motivated observers to move on to the next grade. Training of trainers is often an important element if the training will be in-house training. Again, simple courses and a module system can assist in this.

### The Observer Manuals
All observers should also have a comprehensive observer manual that covers all aspects of their work including code of conduct, role and duties, confidentiality, rights and responsibilities, how to use the Act and Regulations, navigation, safety at sea and many other areas. In addition they may require further manuals related to any intermediate and advanced level of training.

## THE OBSERVERS TERMS OF REFERENCE

Experiences have shown that a career structure is important for the observers. In less developed countries observers stay in their jobs for many years. You can turn this into an advantage were you utilise the experience accumulated. One way to do this is to implement a rank or grade system with increased responsibilities. The following is an example on how such a system could be designed.

### The Standard Observer Level
All observers should be trained and work to this level and for this they should complete the following tasks:

14. Record and report data and other relevant information on vessels' compliance to fisheries law. Prepare a summary of this information and present oral and documented evidence in a Court of Law;

15. Record and report set-by-set information;

16. Collect random samples from catches;

17. Identify all species in the catch and check the vessel logbook on a daily basis; Collect, label and preserve all specimens as requested;

18. Measure the commercial species and record the information on the appropriate forms;

19. Record and report on the technological characteristics of the fishing gear being used;

20. Collect technological data relating to the processing of the fish;

21. Monitor operations on the trawl deck and in the processing room for discards of fish;

22. Monitor and report on the dumping of harmful and polluting material into the ocean;

23. Produce a trip report for each trip.

### *The Intermediate Observer Level*

The next level of training includes the following new tasks:

24. Full calculation of catch composition by weight and percentage using sampling methods;

25. Identification and measurements of any by-catch;

26. Biological recordings including the sex ratios of commercial fish;

27. The collection of otoliths from finfish;

28. Determine the accuracy of data being collected through the observation of navigational and fishing aids onboard the vessel.

### *The Advanced Observer Level*

The tasks of the most advanced level of observer are related to the specific training they received with the scientists. They may include projects such as collecting stomach contents, parasite collections, discard monitoring projects, seal interaction projects etc. They also act as trainers to the other grades of observers.

### THE MANAGEMENT SYSTEM

The management of the observers could be carried out by the responsible fisheries authorities, parastatal organisations or a private company, which supervise, deploy, debrief and discipline observers. Information in the form of trip reports and data forms should be collected in debriefs and checked by the management team.

- The scientific data should be entered into a database for storage and easy access by researchers.

- Violation reports should be dealt with by the law enforcement organisation that determines the appropriate action to be taken. If required an observer should go to court as a witness.

- If a private company is used to deliver services of observers the following issues should be addressed:

- **Terms of reference**: Make sure that the specification of terms of reference is as accurate and detailed as possible. Include tasks that may become relevant in the future.

- **Contract:** Start with a one-year contract and perform a thorough evaluation before extending the contract. You should operate on 3-5 year contracts after the first year of probation if the fisheries management organisation is satisfied. This will create a better environment for planning and employment.

- **Performance measures:** Define performance measures that the company can be evaluated upon. This should also be communicated to the company and create the basis for both short-term and long-term evaluations of performance.


## CONCLUSION

It is important to determine what your needs and requirements are related to a observer programme. It is also necessary to analyse if it is feasible to establish a programme with the ambitions identified through your needs analysis including required funds, human resources and training programmes.

You need to have a dynamic relation to the programme where motivation and communication are given priority. A fishery observer is exposed to a difficult situation where corruption and threats are common. It is important to address these issues seriously and openly to ensure a good and efficient programme.

An observer programme does not have to be expensive. A few well-trained observers could significantly strengthen both the monitoring control and surveillance organisation and stock assessment, through basic data collection.


## A FEW NOTES ON SIMPLE LANDING SITE SAMPLING PROGRAMMES

The objective of a sampling programme at landing sites is usually to determine the species composition, weights, size of fish and other biological information about the catch linked to details of fishing gear, areas fished and possibly time spent fishing. This information will often be used to gain information on the total catch of an area by species or gear type etc.

Sampling programmes are usually associated with a frame survey of all the fishers, vessels, canoes and gears before hand. The frame survey will cover the entire area and may well include other information on the fishers such as the nature of their fishing, the time spent fishing and on other activities and the ownership structure of the gear, canoes, vessels and ultimately the catch.

These frame surveys provide vital information used for

- Designing the sampling regime;
- Providing the data needed in order to raise the sampling regime into fully raised and representative figures.

In relation to the results of a frame survey and the information that is required from the sampling programme a sampling strategy is then designed that considers among others the following:

- The end use of the information;

- The resources available to the programme, financial, human and support;

- The quality of the resources available especially the human resources and data collectors;

- The type of data processing facilities available;

- The technology available;

- The level of co-operation with the fishers and their interest in the programme.

The types of issues that need to be considered in such programmes are:

- The type of employment of the data collectors and other staff;

- Training requirements and manuals;

- Management support and supervision to the programme;

- Equipment;

- Data processing;

- Design of the sampling – stratified, random, etc;

- Design of collection forms and clear instructions for use;

- Feedback to fishers and data collectors;

- Involvement of community;

- Checks and validation of data.

**REPORT ON A COMMERCIAL SAMPLING PROGRAMME**

The Namibian Commercial Sampling Programme (CSP) Project was developed with a six-month pilot stage and a two-year implementation phase. Namibia already had 200 observers placed on vessels to monitor compliance but they had no biological training and did not sample the catch. This programme was therefore established to develop a programme for commercial sampling, to develop material for training and manuals, to train the observers and the management team, to manage the programme including all aspects of observer management, logistical management and data validation and checking.

The report gives a complete overview of this project and the successful programme that emerged. The programme is still running after five years, fully managed by Namibian staff and providing data for stock assessment and compliance requirements.

The Namibian CSP is an excellent example for developing countries as it initially utilised untrained observers and through a graded system of training taught them how to gather accurate biological data. The programme is a low-technological solution to the observer question and it has low cost implications for the Ministry or organisation implementing it.