MACALISTER ELLIOTT & PARTNERS LTD

# Capacity development and proposed training plan

## REPORT FOR MFMRD



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| Caitlin Gilmour | Project Manager |  | 23/10/2023 |
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# 1. Outline of assignment

Under the Pacific Islands Regional Oceanscape Program (PROP), the Ministry of Fisheries and Marine Resources Development (MFMRD) has engaged MacAlister Elliott & Partners (MEP) to deliver a consultancy entitled “Kiritimati Island Ocean Resources & Fisheries Management Planning”. Task 3 of this consultancy aims to support the implementation of the draft Kiritimati Island Marine Aquarium Fish (MAF) Trade Management Plan 2017 by (i) assessing the human resource and capacity needs to implement this plan; (ii) designing and implementing a training and capacity development program; and (iii) carrying out a legal and regulatory framework gap analysis to identify the pathway through which the management plan can be promulgated.

In response to these aims, this deliverable represents the proposed training and capacity building plan to support the implementation of the draft Kiritimati Island Marine Aquarium Trade Management Plan 2017. Additionally, to also support Task 2 ‘Development of a Sport Fishing Management Plan’, introductory training sessions which address elements of the Sport Fishing Management Plan, but which would also be of wider benefit to MFMRD staff, and the implementation of the MAF, have been suggested as part of this training plan.

# 2. Training plan structure

The proposed training and capacity development plan forms two key areas of focus – data collection needs and analysis to inform evidence-based fisheries management, and Monitoring, Control and Surveillance (MCS) to strengthen resource management. The training will occur in person with two members of the MEP team over the course of five working days.

In total, four modules will be delivered, which includes fifteen different sub-components. A mixture of training methods will be employed, including instructor led PowerPoint presentations, interactive question-and-answer sessions, case studies and practical field sessions.

## 2.1 Monitoring and Evaluation

Monitoring and evaluation is an important aspect of training related activities which ultimately allows the effectiveness of training to be assessed, to determine whether training is having the desired impact and to inform the development of future training programmes. As such, the following steps will be taken during and after training:

- Pre-tests will be used to evaluate participant baseline knowledge, and to establish learning expectations.
- Post-tests will be used to evaluate participant learning and training efficacy.
- Feedback questionnaires will be used to assess participants’ perceptions on the relevance and usefulness of training delivered.

# 3. Curriculum

## 3.1 Module 1. Precursor Data Governance for Evidence-Based Fisheries Management

### Session 1.1. Data governance and integrity

***Target audience:***

- Ministry of Fisheries and Marine Resource Development (MFMRD) Kiritimati division fishery officers involved in marine aquarium MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand the importance of data governance and integrity for evidence-based fisheries management.
- Recognise key features of a quality management system, documented information, and ISO9001.
- Recognise the five principles of data integrity.
- Understand how to implement data entry and verification procedures to ensure data integrity.
- Understand how to implement data access procedures and permissions to ensure data integrity.
- Understand how to implement data redundancy and backup procedures to ensure data integrity.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive exercises.

***Duration:***

- 1 hour (est.)

## 3.2 Module 2. Evidence-Based Management of Kiritimati's Marine Aquarium Fishery

### Session 2.1. Introduction to Kiritimati's draft marine aquarium fishery management plan

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Have a working knowledge of the draft management plan's key objectives, management measures and content.
- Possess the foundational knowledge required for subsequent training sessions and their application.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive question-and-answer exercises.

***Duration:***

- 1 hour (est.)

### Session 2.2. Data needs for marine aquarium fishery management

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand the key differences between fishery dependent and fishery independent data.
- Have a working knowledge of the types of data required to manage Kiritimati's marine aquarium fishery.
- Understand statistical grids and their application to area-based and ecosystem-based fisheries management.
- Understand industry-reported catch and effort data and its application to evidence-based fisheries management.
- Understand the principles of data triangulation, validation and verification.
- Understand the strengths and weaknesses of species-specific fisheries information and management.
- Possess a framework and templates for collecting data to inform management of Kiritimati's marine aquarium fishery.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive exercises.

***Duration:***

- 1.5 hour (est.)

### Session 2.3. Analysis of fishery-dependent data to inform effort-based harvest control rules

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand how to analyse industry-reported data to determine catch-per-unit-effort.
- Understand how to determine spatial and temporal trends.
- Understand the principles of target and limit reference points.
- Possess a framework for applying data analysis and harvest control rules within Kiritimati's marine aquarium fishery.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive case studies, examples and exercises.

***Duration:***

- 2 hours (est.)

## Module 3: Evidence-Based Management of Kiritimati's Sport Fishery

### Session 3.1. Introduction to Kiritimati's draft sport fisheries management plan

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in sport fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Have a working knowledge of the draft management plan's key objectives, management measures and content.
- Possess the foundational knowledge required for subsequent training sessions and their application.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive question-and-answer exercises.

***Duration:***

- 1 hour (est.)

### Session 3.2. Data needs for sport fishery management

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in sport fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand the key differences between fishery dependent and fishery independent data.
- Have a working knowledge of the types of data required to manage Kiritimati's sport fishery.
- Understand angler logbooks, angler-reported catch and effort data, and their application to evidence-based fisheries management.
- Understand the strengths and weaknesses of species-specific fisheries information and management.
- Possess a framework and templates for obtaining data to inform management of Kiritimati's sport fishery.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive question-and-answer exercises.

***Duration:***

- 1 hour (est.)

### Session 3.3. Analysis of fishery-dependent data to inform population structure harvest control rules

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in sport fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Be familiar with the general principles of population structure, spawning potential ratio and stock status.
- Understand how to analyse angler logbooks to determine target population length-frequency structure.
- Understand how to determine temporal trends.
- Understand the principles of target and limit reference points.
- Possess a framework for applying data analysis and harvest control rules within Kiritimati's sport fishery.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive case studies, examples and exercises.

***Duration:***

- 2 hours (est.)

## Module 4: Monitoring, Control and Surveillance (MCS)

### Session 4.1. Introduction to the MAF plan MCS

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Have a clearer understanding of the MAF plan MCS related data submission requirements
- Have a better understanding of the rationale behind the data submission recommendations from an MCS perspective.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive question-and-answer exercises.

***Duration:***

- 1.5 hours (est.)

### Session 4.2. Intelligence led; risk based enforcement principles

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand how to grade and use fisheries related intelligence
- Know how to test the reliability of intelligence received from different sources
- Understand how to carry out a risk assessment
- Understand how to assess the impact of activities to inform patrol priorities and tasking.

***Delivery methods:***

- Instructor-led, classroom-based, with interactive examples and mock practical exercises.

***Duration:***

- 3 hours (est.)

### Session 4.3. Introduction to harvest records

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand the key MCS data elements associated with harvest records
- Understand the submission requirements
- Understand common non-compliance issues
- Have a clearer understanding of the enforcement needs

***Delivery methods:***

- Instructor-led, classroom-based, with interactive examples and mock practical exercises.

***Duration:***

- 2 hours (est.)

### Session 4.4. Introduction to take-over declarations

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand the key MCS data elements associated with take-over declarations
- Understand the submission requirements
- Understand common non-compliance issues
- Have a clearer understanding of the enforcement needs

***Delivery methods:***

- Instructor-led, classroom-based, with interactive examples and mock practical exercises.

***Duration:***

- 2 hours (est.)

### Session 4.5. Introduction to export documents

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand the key MCS data elements associated with export documents
- Understand the submission requirements
- Understand common non-compliance issues
- Have a clearer understanding of the enforcement needs

***Delivery methods:***

- Instructor-led, classroom-based, with interactive examples and mock practical exercises.

***Duration:***

- 1.5 hours (est.)

### Session 4.6. Data cross check and validation

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand how to validate the data submitted in support of the MAF plan
- Understand how to cross check the data and identify potential non-compliance
- Understand common non-compliance issues

***Delivery methods:***

- Instructor-led, classroom-based, with interactive examples and mock practical exercises.

***Duration:***

- 2.5 hours (est.)

### Session 4.7. Enforcement planning

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in marine aquarium fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Understand common non-compliance issues
- Have a clearer understanding of the enforcement needs using a ILRBE approach
- Have the ability to create an enforcement plan with inspection priorities and activities clearly identified
- Understand

***Delivery methods:***

- Instructor-led, classroom-based, with interactive examples and mock practical exercises.

***Duration:***

- 1.5 hours (est.)

### Session 4.8. Introduction to the MCS aspects of the proposed sport fishing management plan

***Target audience:***

- MFMRD Kiritimati division fishery officers involved in sport fish fishery MCS.
- MFMRD fishery officers involved in coastal fishery MCS.

***Learning objectives:***

Upon successfully completing this session, participants will:

- Have a clearer understanding of the MCS components of the proposed plan
- Have a clearer understanding of the requirements, who they apply to and how
- Be able to assess resource and inspection requirements
- Understand the types of MCS response and enforcement options available to effectively implement the proposed plan

***Delivery methods:***

- Instructor-led, classroom-based with interactive examples.

***Duration:***

- 2.5 hours (est.)

## 4. Provisional Timetable

| Day 1 | |
|---|---|
| 08:30 – 09:30 | Introductions, learning objectives, pre-test |
| 09:30 – 10:30 | 1.1. Data governance and integrity |
| 10:30 – 10:45 | Comfort Break |
| 10:45 – 11:45 | 2.1. Introduction to Kiritimati's draft marine aquarium fishery management plan |
| 11:45 – 12:45 | Lunch |
| 12:45 – 14:00 | 2.2. Data needs for marine aquarium fishery management |
| 14:00 – 14:15 | Comfort Break |
| 14:15 – 16:00 | 2.3. Analysis of fishery-dependent data to inform effort-based harvest control rules |
| Day 2 | |
| 08:30 – 09:30 | 3.1. Introduction to Kiritimati's draft sport fisheries management plan |
| 09:30 – 10:30 | 3.2. Data needs for sport fishery management |
| 10:30 – 10:45 | Comfort Break |
| 10:45 – 12:30 | 3.3. Analysis of fishery-dependent data to inform population structure harvest control rules |
| 12:30 – 13:30 | Lunch |
| 13:30 – 15:00 | Participant directed learning, Q&A and discussion |
| 15:00 – 15:15 | Comfort Break |
| 15:15 – 16:00 | Post-test and feedback |
| Day 3 | |
| 09:00 – 10:30 | 4.1 Introduction to the MAF plan MCS |
| 10:30 – 10:45 | Comfort Break |
| 10:30 – 12:30 | 4.2 Intelligence led; risk based enforcement principles (part 1) |
| 12:30 – 13:30 | Lunch |
| 13:30 – 14:30 | 4.3 Intelligence led; risk based enforcement principles (part 2) |
| 14:30 – 14:45 | Comfort break |
| 14:30 – 16:30 | 4.4 Introduction to harvest records |
| Day 4 | |
| 09:00 – 09:30 | Recap – Q&A |
| 09:30 – 10:30 | 4.5 Introduction to take-over declarations (part 1) |
| 10:30 – 10:45 | Comfort break |
| 10:45 – 12:00 | Introduction to take-over declarations (part 2) |
| 12:00 – 13:00 | Lunch |
| 13:00 – 14:30 | Introduction to export documents |
| 14:30 – 14:45 | Comfort break |
| 14:45 – 16:30 | 4.6 Data cross check and validation (part 1) |
| Day 5 | |
| 09:00 – 09:30 | Recap – Q&A |
| 09:30 – 10:30 | Data cross check and validation (exercise) |
| 10:30 – 10:45 | Comfort break |
| 10:45 – 12:30 | 4.7 Enforcement planning |
| 12:00 – 13:00 | Lunch |
| 13:00 – 14:30 | 4.8 Introduction to the MCS aspects of the proposed sport fish management plan (part 1) |
| 14:30 – 14:45 | Comfort break |
| 14:45 – 15:00 | Introduction to the MCS aspects of the proposed sport fish management plan (part 2) |
| 15:00 – 16:00 | Course wash up and final Q&A |