





## Priority adaptations to climate change for fisheries and aquaculture in Cook Islands: reducing risks and capitalising on opportunities

Ministry of Marine Resources (MMR), SPC and AusAID

25 and 26 June 2013

#### Rarotonga

### **Background**

Fisheries and aquaculture are vital to the development goals of the Pacific Islands region. Nowhere else in the world do so many countries and territories depend as heavily on the benefits derived from catching or growing fish and shellfish. Industrial fish processing operations and fishing fleets account for a substantial proportion of gross domestic product in several countries and territories. Licence fees from distant water fishing nations also make significant contributions to government revenue for some small island states. Fish is a cornerstone of food security in many Pacific Island countries and territories (PICTs), and coastal fisheries and aquaculture provide jobs and other opportunities to earn income across the region.

To maintain or improve the important contributions made by fisheries and aquaculture in the face of the many drivers affecting the sector, PICTs are implementing the plans required to (1) optimise the economic benefits derived from tuna fisheries, (2) provide sufficient fish for food security, and (3) identify the number of livelihoods that can be sustained from coastal fisheries and aquaculture.

Climate change is among these drivers and expected to progressively increase in significance. SPC has co-ordinated a comprehensive assessment of the vulnerability of tropical Pacific fisheries and aquaculture to climate change<sup>1</sup> to assist PICTs to understand how global warming and ocean acidification may affect their plans to maintain or improve the benefits they derive from fisheries and aquaculture. In addition, FAO has produced a global overview of the current scientific knowledge and adaptation and mitigation options for the sector<sup>2</sup>. Recently, SPC and FAO have summarised the priority adaptations to climate change for Pacific fisheries and aquaculture<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> Available at http://cdn.spc.int/climate-change/fisheries/assessment/

<sup>&</sup>lt;sup>2</sup> Available at http://www.fao.org/docrep/012/i0994e/i0994e00.htm

<sup>&</sup>lt;sup>3</sup> Available at http://www.spc.int/DigitalLibrary/Doc/FAME/Meetings/13 SPC FAO climate workshop Proceedings.pdf

MMR is organising this workshop to help stakeholders in the fisheries and aquaculture sector to use this information to identify priority adaptation actions to climate change with the ultimate aim of building resilience and flexibility at the community and enterprise levels.

#### **Objectives of the Workshop**

The objectives of the workshop are to provide government departments, non government organisations, communities, enterprises and their development partners with a sound understanding of (1) the main projected effects of global warming and carbon dioxide emissions on the ecosystems supporting fisheries and aquaculture; (2) the consequences for the national and local economies; and (3) the actions required to reduce the risks and capitalise on the opportunities.

An interactive format will allow participants to work closely to:

- understand the possible direct and indirect effects of climate change and ocean acidification on tuna fisheries, coastal fisheries and pearl farming;
- identify the implications of the projected changes to fisheries and aquaculture for economic development, food security and livelihoods; and
- identify the adaptations and policies needed to build the resilience of enterprises and communities to the projected threats and to equip them to take advantage of the potential opportunities.

#### **Expected Outcomes**

Participants will leave the workshop with (1) an increased awareness of climate change implications for fisheries and aquaculture; (2) knowledge of the tools to better understand the vulnerabilities of enterprises and communities to these changes; and (3) clear ideas about the planning and actions needed to assist the sector adapt to climate variability and climate change (including the risk of climate-induced natural disasters).

#### **Expected Outputs**

A list of priority adaptations and suggested supporting policies to be included in the strategies for the sector, and integrated into national plans for climate change adaptation and disaster risk management.

# Programme for Cook Islands Workshop on Climate Change, Fisheries and Aquaculture

Tuesday 25 June		
08h30	Registration and tea/coffee	
Session 1: Welcome and introduction		
09h00	Welcome, opening remarks by MMR and prayer	
09h10	The fisheries and aquaculture sector in Cook Islands - MMR senior staff	
09h50	Objectives and structure of the workshop	
COFFEE & TEA: 10h00 - 10h20		
Session 2: Understanding the projected changes to surface climate and Pacific Ocean		
10h20	Observed and projected changes to surface climate - Arona Ngari	
10h40	Observed and projected changes to the ocean – Johann Bell	
11h00	Breakout groups to discuss projected changes to surface climate and the ocean	
Session 3: L	Inderstanding projected changes to coastal fisheries	
11h40	Projected changes to tuna food webs – Johann Bell	
12h00	Projected changes to tuna stocks – Johann Bell	
LUNCH: 12h20 – 13h30		
13h30	Breakout groups to discuss effects on tuna food webs and tuna stocks	
Session 4: Understanding projected changes to tuna		
14h10	Projected changes to coral reefs – Johann Bell	
14h30	Projected changes to coastal fisheries – Johann Bell	
14h50	Breakout groups to discuss effects on coral reefs and coastal fisheries	
COFFEE & TEA: 15h30 - 15h50		
Session 5: Understanding projected changes to freshwater fisheries and aquaculture		
15h50	Projected changes to aquaculture production – Johann Bell and Dorothy Solomona	
16h10	Breakout groups to discuss effects on aquaculture production	
16h50	End of Day 1	

	Wednesday 26 June	
Session 6: Implications, adaptations and suggested policies		
09h00	Implications, adaptations and policies for economic development – Johann Bell	
09h20	Breakout discussion groups	
09h50	Implications, adaptations and policies for food security – Johann Bell	
10h10	Breakout discussion groups	
COFFEE & TEA: 10h40 - 11h00		
11h00	Working groups to identify priority adaptations	
LUNCH: 12h30 – 13h30		
Session 7: Communication and integrating with national strategic plans		
13h30	Communicating climate change concepts to communities – Anna Passfield	
13h50	National plans for climate change adaptation & DRM – Anna Passfield	
14h10	Breakout groups to discuss communication and national plans for CCA & DRM	
COFFEE & TEA: 15h00 - 15h20		
15h20	Finalising the outputs of the workshop	
16h00	End of workshop	