



Priority adaptations to climate change for Pacific fisheries and aquaculture: reducing risks and capitalising on opportunities

SPC and FAO

5-8 June 2012

Noumea, New Caledonia

Venue: SPC Conference Room

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 even more significant contributions to government revenue, especially for small island states.

Fish is also a cornerstone of food security in the region. Fish consumption is at least 2–4 times greater than the global average in more than half of all 22 Pacific Island countries and territories (PICTs). In rural areas, fish often makes up 50–90% of dietary animal protein and most of the fish consumed (60–90%) comes from subsistence fishing.

Fisheries and aquaculture are also an important source of jobs and opportunities to earn income. More than 12,000 people are employed in tuna canneries or processing facilities, or on tuna fishing vessels, throughout the region. Fishing also makes important contributions to livelihoods in rural areas - an average of 47% of households in coastal communities across the region earn either their first or second income from fishing. In some remote atolls, pearl farming is an important source of employment and in inland Papua New Guinea there are now more than 10,000 freshwater fish farms.

To maintain or improve the important contributions made by fisheries and aquaculture in the face of the many drivers affecting the sector, many PICTs are implementing the plans required to (1) optimise the economic benefits derived from industrial tuna fisheries, (2)

provide sufficient fish for the food security for rapidly growing populations, and (3) identify the number of livelihoods that can be sustained from coastal fisheries and aquaculture.

Climate variability and climate change are among these drivers and climate change expected to progressively increase in significance. SPC and FAO are assisting PICTs to understand how climate change may affect their plans to maintain or improve the benefits they derive from fisheries and aquaculture, SPC has co-ordinated a comprehensive assessment of the vulnerability of tropical Pacific fisheries and aquaculture to climate change¹, and FAO has produced a global overview of the current scientific knowledge and adaptation and mitigation options for the sector².

With the generous support of AusAID, and the Governments of New Caledonia, Japan and Sweden, SPC and FAO are jointly organising this workshop to help PICTs use this information to identify priority adaptation actions to climate change by government, enterprises, communities and other stakeholders involved in fisheries and aquaculture; with the ultimate aim of building resilience and flexibility at the community, enterprise and regional levels.

Objectives of the Workshop

The objectives of the workshop are to provide the Heads of Fisheries and national focal points for climate change from Pacific Island countries and territories with a sound understanding of the main projected effects of existing climate variability, global warming and carbon dioxide emissions on the ecosystems supporting fisheries and aquaculture, the consequences for current and future production, food security and livelihoods and the actions required to reduce the risks and capitalise on the opportunities.

An interactive format will allow representatives from PICTs to work closely with a broad range of technical experts to:

- understand the direct and indirect effects of climate change, including potential disasters, and ocean acidification on oceanic, coastal and freshwater fish stocks and aquaculture production;
- identify the implications of the projected changes to fisheries and aquaculture activities on the economic development, food security and livelihoods;
- choose and prioritise the adaptations and policies needed to build the resilience of enterprises and communities to the projects threats and to equip them to take advantage of the potential opportunities; and
- plan the actions needed to raise the support required to implement priority adaptations and monitor their success.

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

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

Expected Outputs

Participants will leave the workshop with (1) an increased awareness of climate change implications for fisheries and aquaculture in the region; (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, climate change and the risk of natural disasters.

A report will be produced summarising the activities and recommendations from the workshop. This report will include a case study based on the projected effects of climate change on fisheries and aquaculture in the region, including priority adaptations and supporting policies, based on the recent vulnerability assessment coordinated by SPC.

Programme for Climate Change Workshop

Tuesday 5 June 2012 (Facilitator: Johann Bell)

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| 08h30 | Registration and tea/coffee – SPC Conference room |
| Session 1: Welcome and introduction | |
| 09h00 | Welcome, opening remarks and prayer – Mike Batty |
| 09h20 | FAO climate change and disasters programme – Cassandra DeYoung & Masa Izumi |
| 09h40 | Objectives and structure of the workshop – Johann Bell |
| COFFEE & TEA: 10h00 – 10h30 | |
| Session 2: Understanding the projected changes to surface climate and Pacific Ocean | |
| 10h30 | Observed and projected changes to surface climate – Janice Lough |
| 10h50 | Breakout groups to discuss surface climate |
| 11h30 | Observed and projected changes to the ocean Part 1 – Alex Sen Gupta |
| 11h50 | Breakout groups to discuss the ocean Part 1 |
| LUNCH: 12h30 – 13h30 | |
| 13h30 | Observed and projected changes to the ocean Part 2 – Alex Ganachaud |
| 13h50 | Breakout groups to discuss the ocean Part 2 |
| Session 3: Understanding projected changes to tuna | |
| 14h30 | Projected changes to food webs for tuna – Valerie Allain |
| 14h50 | Breakout groups to discuss effects on food webs for tuna |
| COFFEE & TEA: 15h30 – 16h00 | |
| 16h00 | Projected changes to tuna stocks – Patrick Lehodey |
| 16h20 | Breakout groups to discuss effects on tuna stocks |
| 17h00 | Summary Day 1 (Johanna Johnson) |

| Wednesday 6 June 2012 (Facilitator: Mike Batty) | |
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| 08h00 | Recap of Day 1 (Johanna Johnson) |
| Session 4: Understanding changes to coastal fisheries | |
| 08h20 | Projected changes to coral reefs – Janice Lough |
| 08h40 | Breakout groups to discuss effects on coral reefs |
| 09h20 | Projected changes to mangroves, seagrasses and tidal flats – Johanna Johnson |
| 09h40 | Breakout groups to discuss effects on these coastal habitats |
| COFFEE & TEA: 10h20 – 10h50 | |
| 10h50 | Projected changes to coastal fisheries production – Morgan Pratchett |
| 11h10 | Breakout groups to discuss effects on coastal fisheries production |
| Session 5: Understanding changes to aquaculture | |
| 11h50 | Projected changes to coastal aquaculture – Tim Pickering |
| 12h10 | Breakout groups to discuss effects on coastal aquaculture |
| LUNCH: 12h50 – 14h00 | |
| 14h00 | Projected changes to freshwater aquaculture – Tim Pickering |
| 14h20 | Breakout groups to discuss effects on freshwater aquaculture |
| Session 6: Understanding changes to freshwater fisheries | |
| 15h00 | Projected changes to freshwater fish habitats and stocks – Peter Gehrke |
| COFFEE & TEA: 15h30 – 16h00 | |
| 16h00 | Breakout groups to discuss effects on freshwater habitats and stocks |
| 16h40 | Summary of Day 2 (Johanna Johnson) |

| Thursday 7 June (Facilitator: Cassandra DeYoung) | |
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| 08h00 | Recap of Day 2 (Johanna Johnson) |
| Session 7: Implications, adaptations and suggested policies | |
| 08h20 | Implications for economic development – Mike Batty |
| 08h40 | Breakout groups to discuss implications for economic development |
| 09h20 | Adaptations and policies for economic development – Mike Batty |
| 09h40 | Breakout groups to discuss adaptations for economic development |
| COFFEE & TEA: 10h20 – 10h50 | |
| 10h50 | Implications for food security and livelihoods – Johann Bell |
| 11h10 | Break out groups to discuss implications for food security and livelihoods |
| 11h50 | Adaptations and policies for food security and livelihoods – Johann Bell |
| 12h10 | Breakout groups to discuss adaptations for food security and livelihoods |
| LUNCH: 12h50 – 14h00 | |
| Session 8: Climate-related disasters | |
| 14h00 | Global frameworks – Florence Poulain |
| 14h20 | The Pacific approach – Tagaloa Cooper |
| 14h40 | Breakout groups to discuss DRM and fisheries |
| COFFEE & TEA: 15h10 – 15h40 | |
| Session 9: National priority adaptations and policies | |
| 15h40 | National climate change strategies and action plans – Pepetua Latasi |
| 16h00 | Driving priority adaptations and policies at the sector level – Brian Dawson |
| 16h20 | Working groups to identify national and regional priority adaptations, including how these fit into/are supported by existing national climate change strategies/plans (prepare 1-2 page summary for each country and 5-10 min report for Day 4) |
| 17h30 | Summary of Day 3 (Johanna Johnson) |

| Friday 8 June (Facilitator: Andrea Volentras) | |
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| Session 9: National priority adaptations and policies cont'd Facilitator (Andrea Volentras) | |
| 08h00 | Brief reports to plenary by Melanesian countries and territories (10 mins each) |
| 09h15 | Brief reports to plenary by Micronesian countries and territories (10 mins each) |
| COFFEE & TEA: 10h30 – 11h00 | |
| 11h00 | Brief reports to plenary by Polynesian countries and territories (10 mins each) |
| LUNCH: 12h45 – 14h00 | |
| Session 10: Dialogue with partners | |
| 14h00 | Overview of opportunities to fund climate change adaptation – Brian Dawson |
| 14h20 | Presentations by development agencies (ADB, AusAID, EU, GIZ) (10-15 mins each) |
| COFFEE & TEA: 15h20 – 15h50 | |
| 15h50 | Statements from regional organisations/NGOs on additional assistance for PICTs (CI, IUCN, LLMA, TNC, UNDP, USP, WorldFish) (5-10 mins each) |
| 17h15 | Summary of workshop (clearing of summary document) (Mike Batty) |
| BBQ 18h00 – 22h00 | |