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

**Vanuatu Fisheries Department, SPC, AusAID and GIZ
30 and 31 May 2013
Port Vila**

Background

In 2012, at the Heads of Fisheries meeting, fisheries senior staff met together at SPC Headquarters with scientists and development partners to discuss the latest scientific research on fisheries and climate change. A strong mandate emerged to further the issue at the regional, national and local levels. At that meeting, heads of fisheries made a special request to SPC that detailed and nation-specific trainings be undertaken in all countries so that more stakeholders and fisheries department staff would be exposed to these findings. This Vanuatu-specific workshop is a direct outcome from that meeting. The Vanuatu Fisheries Department is dedicated to spreading the message of climate impacts among all of its divisions, and promoting locally-appropriate adaptation strategies in the fisheries sector.

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. In addition, fisheries and aquaculture provide jobs and other opportunities to earn income

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.

Fishing for tuna, both within and outside the exclusive economic zone, is an important commercial activity in Vanuatu. National annual per capita consumption of fresh fish is estimated to be about 20 kg per person per year. Almost 50 per cent of surveyed households in Vanuatu derived their first or second source of income from catching or selling fish and the annual coastal fish catch is estimated to be >3,350 tonnes, comprised of >2480 tonnes of finfish and >880 tonnes of invertebrates. Freshwater aquaculture also helps provide fish for the market in Port Vila.

To maintain or improve the important contributions made by fisheries and aquaculture in the face of the many drivers affecting the sector, Pacific Island countries are implementing the plans required to (1) optimise the economic benefits derived from 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 is expected to progressively increase in significance. SPC has co-ordinated a comprehensive assessment of the

vulnerability of tropical Pacific fisheries and aquaculture to climate change¹ to assist PICTs to understand how climate change 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 sector². Recently, SPC and FAO have summarised the priority adaptations to climate change for Pacific fisheries and aquaculture³.

Vanuatu Fisheries Department and the National Advisory Board on Climate Change and Disaster Risk Reduction is organising this workshop to help stakeholders in the fisheries and aquaculture sectors 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 existing climate variability, global warming and carbon dioxide emissions on the ecosystems supporting fisheries and aquaculture; (2) the consequences for current and future production, food security and livelihoods; 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 direct and indirect effects of climate change and ocean acidification on fisheries production and aquaculture;
- identify the implications of the projected changes to fisheries and aquaculture for economic development, food security and livelihoods; and
- choose and prioritise 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 Outputs

Participants will leave the workshop with (1) an increased awareness of climate change implications for fisheries and aquaculture in Vanuatu; (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).

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

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

³ Available at http://www.spc.int/DigitalLibrary/Doc/FAME/Meetings/13_SPC_FAO_climate_workshop_Proceedings.pdf

Programme for Vanuatu Workshop on Climate Change, Fisheries and Aquaculture	
Thursday 30 May 2013	
08h30	Registration and tea/coffee
Session 1: Prayer, Welcome and Introduction	
09h15	Welcome, opening remarks by Moses Amos, Director, Vanuatu Fisheries Department
09h30	The fisheries and aquaculture sector in Vanuatu - Kalna Arthur
09h50	Objectives and structure of the workshop - Johann Bell
COFFEE & TEA: 10h00 – 10h20	
Session 2: Understanding the projected changes to surface climate and Pacific Ocean	
10h20	Observed and projected changes to surface climate - Christopher Bartlett
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: Understanding projected changes to coastal fisheries	
11h40	Projected changes to coral reefs, mangroves and sea grasses - Christopher Bartlett
12h00	Projected changes to coastal fisheries – Johann Bell
LUNCH: 12h20 – 13h30	
13h30	Breakout groups to discuss coastal fish habitats and stocks
Session 4: Understanding projected changes to tuna	
14h10	Projected changes to tuna food webs and stocks - Johann Bell
14h30	Breakout groups to discuss effects on food webs for tuna
COFFEE & TEA: 15h10 – 15h30	
Session 5: Understanding projected changes to freshwater fisheries and aquaculture	
15h30	Projected changes to freshwater habitats and fisheries - Johann Bell
15h50	Projected changes to aquaculture production - Johann Bell
16h10	Breakout groups to discuss freshwater fisheries and aquaculture production
16h50	End of Day 1

Friday 31 May 2013	
Session 6: Implications, adaptations and suggested policies	
09h00	Implications and adaptations for food security and livelihoods - Christopher Bartlett
09h20	Implications and adaptations for economic development - Johann Bell
09h40	Breakout groups to discuss implications, adaptations and policies
COFFEE & TEA: 10h20 – 10h50	
10h50	Working groups to identify priority adaptations
LUNCH: 12h30 – 13h30	
Session 7: Localising vulnerability assessments and integrating with national plans	
13h30	Localising vulnerability assessments - Bani Arudovo & Christopher Bartlett
13h50	National environmental policy and fisheries – Marie Rossetti
14h10	Climate Change/DDR policy and action development - Malcolm Dalesa
14h30	Breakout groups to discuss local assessments and national action plans
COFFEE & TEA: 15h00 – 15h20	
15h20	Finalising the outputs of the workshop VFD
16h00	End of workshop