

Information Paper 5

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## Regional Action Plan on Aquatic Biosecurity – issues and challenges

The Third Regional Technical Meeting on Coastal Fisheries is supported  
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## Purpose

1. The purpose of this Information paper is to present a summary of the first Regional Action Plan on Aquatic Biosecurity, which has been developed by SPC and is based on a thorough consultative process among all SPC member countries and territories.
2. The purpose of this Information Paper is to raise awareness among Pacific Island countries and territories (PICTs) on aquatic biosecurity. This session, which is focused on aquaculture and aquatic biosecurity, will present concrete examples on the development and implementation of specific aquatic biosecurity measures, which have served to improve the country's aquaculture production and to open new market options.

## Introduction

3. The aquaculture sector is becoming a relevant economic activity for the Pacific region and the local communities. In order to achieve sustainable development of the aquaculture sector, it is a clear priority that farmed aquatic species are healthy and free from diseases and pests. Moreover, it is also necessary to protect and conserve our rich and highly biodiverse natural aquatic environment.
4. Aquatic biosecurity has been defined as a “system of standardised protocols to deal with biological risks in aquatic environments”, and is therefore the key to managing biological risks in aquatic environments, such as the risk of exotic pathogens and invasive aquatic species. Good aquatic biosecurity measures are vital for maintaining healthy organisms, reducing the risk of acquiring diseases and pests in aquaculture facilities, and harvesting high-quality yields.
5. Aquatic biosecurity actions need a holistic approach that involves government officers and members of the private sector who have expertise in different fields such as environment, aquaculture, fisheries, agriculture, livestock and human health. In a region like ours – which has comparative advantages, but also many technical and logistical limitations – an action plan is necessary for facilitating harmonisation of legislation, capabilities, infrastructure and protocols related to aquatic biosecurity. The world's demand for high quality aquaculture (and fisheries) products make control of aquatic biological risks, including aquatic diseases and aquatic invasive species, important.
6. Therefore, the major aim of aquatic biosecurity protocols is to protect marine and freshwater aquatic organisms, existing and future aquaculture development and the human population that depends on these resources, from the ecological and socio-economic harms caused by aquatic invasive species and aquatic diseases and pests.
7. Aquatic biosecurity protocols aim to assist SPC members in meeting both international obligations and domestic needs to prevent the movement of aquatic invasive species and relevant aquatic diseases, both into and out of countries or territories, and their spread within the country or territory. For this reason, the implementation of aquatic biosecurity protocols at the national and regional levels has strong positive implications for both the fisheries and aquaculture sectors.

## Relevance for the Pacific

8. The Pacific region, with many comparative advantages regarding fisheries and aquaculture, but at the same time, with unique, bio-diverse and sensible aquatic environments, needs the establishment of context-adapted protocols on aquatic biosecurity, which will support Nations to develop their economies in a sustainable and environmentally friendly manner.
9. Pacific countries have an obligation to maintain biosecurity through their commitments to international agreements, such as the World Trade Organization Agreement on the Application of *Sanitary and Phytosanitary Measures* (SPS)<sup>1</sup> and the United Nation's Convention on Biological Diversity (CBD).
10. The aquaculture sector contributes greatly to improving food and nutrition security and increasing livelihoods within the Pacific region; but most aquatic organisms successfully cultured in the region are introduced (e.g., Nile tilapia, red seaweeds, common carp, blue shrimp and white-leg shrimp), and new species introductions are being pursued for further aquaculture development. It has been estimated that more than 90% of the Pacific aquaculture production, both in volume and value is derived from exotic aquatic species.
11. Aquatic diseases are a significant threat to the sustainability and productivity of aquaculture in the region, which is known for its high aquatic health status; potential threats for trans-boundary diseases spreading cannot be overlooked.
12. The risk of introducing exotic aquatic diseases, as well as the risk of introducing invasive aquatic species, should not be underestimated in a region that has extremely sensitive aquatic ecosystems.

## Status of aquatic biosecurity in the Pacific Region

13. Although the term "aquatic biosecurity" is relatively recent for the Region, most countries are taking seriously the protection of their aquatic organisms and ecosystems, as they are of extreme importance for national economies. Some illustrative examples include:
  - The **development of legislation** (laws and regulations) **and policies** (national strategies and action plans) aimed at establishing aquatic biosecurity protocols (e.g. National Strategies on Aquatic Biosecurity for Cook Islands, Tonga, PNG, Solomon Islands; new aquaculture regulations on aquaculture with aquatic biosecurity sections for Tonga, RMI and Kiribati).
  - The **establishment of biosecurity authorities** with personnel specifically responsible for aquatic issues (fisheries and aquaculture) (e.g. Biosecurity Authority Fiji, National Agriculture and Inspection Authority of PNG and Biosecurity Authority Vanuatu).
  - The **development of standards for import/export** of aquatic products and live aquatic organisms (e.g., in Fiji, PNG, New Caledonia).

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<sup>1</sup> The sanitary and phytosanitary measures (SPS Agreement) introduces new disciplines that govern trading practices at international level. It sets out the rights and responsibilities of WTO member countries to apply measures necessary to protect human, animal and plant life and health (<http://www.fao.org/3/x7354e/x7354e02.htm>).

- The development of **Memorandum of Understanding to facilitate the exchange and introduction of exotic species** within a framework of coherent biosecurity measures (e.g., RMI, Kiribati, New Caledonia)
  - **Screening and epidemiological surveillance** of aquatic notifiable diseases - most of these diseases are relevant to market access (e.g., Fiji, Vanuatu, Kiribati, PNG, Tonga).
14. The Pacific region has a high aquatic health status, which offers a great comparative advantage with respect to other regions of the world: most notifiable aquatic pathogens are not present in the Pacific. This situation is beginning to facilitate access to more attractive markets.

## The Regional Action Plan on Aquatic Biosecurity

15. The goal of the Regional Action Plan is to provide a regional framework for the harmonisation, development and implementation of coherent aquatic biosecurity policies at regional and national levels.

### *Specific objectives and expected outcomes of the Regional Action Plan on Aquatic Biosecurity*

**Specific objective 1 – Governance:** To harmonise, develop and promote enforcement of coherent national aquatic biosecurity policies, regulations, procedures and practices.

- Outcome 1.1. Regulatory framework on aquatic biosecurity is reviewed and updated at the national level.
- Outcome 1.2. Enforcement strategies are defined and implemented.

**Specific objective 2 – Practices:** To improve aquatic biosecurity practices and infrastructure at the national level.

- Outcome 2.1. National databases on aquatic animal health are improved and/or developed.
- Outcome 2.2. National and regional capacities on health certification for live aquatic organisms are developed.
- Outcome 2.3. National and regional capacities on relevant disease diagnosis, surveillance and reporting are developed.
- Outcome 2.4. National and regional emergency response plans for aquatic pathogens are developed.
- Outcome 2.5. National and regional capacities on risk analysis applied to aquaculture are developed.

**Specific objective 3 – Transfer of aquatic species:** To assure responsible use and control of aquatic species translocation and introductions in the context of aquaculture activities, through the development and implementation of standardised import risk analysis procedures.

- Outcome 3.1. National and regional capacities on import risk analysis that are applied to aquaculture are developed.

- Outcome 3.2. Guidelines for import risk analysis for the movement of live aquatic organisms are developed.
- Outcome 3.3. National and regional capacities on quarantine for live aquatic organisms are developed.
- Outcome 3.4. National infrastructure and operations for quarantine of live aquatic organisms are improved and/or developed.
- Outcome 3.5. National and regional capacities on border control are developed.

**Specific objective 4** – Training and cooperation: A coherent regional approach to capacity building and collaboration in aquatic animal health and biosecurity, with particular reference to diagnosis, surveillance, reporting, quarantine, border control and the prioritising of research and development activities.

- Outcome 4.1. Major regional research and education areas on aquatic biosecurity are identified and developed.
- Outcome 4.2. Major capacity building needs are identified and developed.
- Outcome 4.3. Regional cooperation on aquatic biosecurity is promoted.

### *Stakeholder engagement*

16. National and regional stakeholder engagement is critical to the successful uptake and implementation of the regional action plan in order to improve aquatic biosecurity in PICTs. Setting an engagement plan will allow for the following:
  - Information, consultation and empowerment of government and non-government stakeholders.
  - Greater awareness of stakeholders' roles and responsibilities.
  - Prevention of unnecessary duplication of efforts across jurisdictions.
  - Greater participation of stakeholders.
  - Behavioural change across the entire decision-making spectrum from civil society and communities to government agencies.
17. Engagement with key stakeholders will be enhanced through various approaches such as the following:
  - Information – e.g. articles in newsletters, journals and newspapers, website, social media and open discussion groups.
  - Consultation – e.g. surveys and meetings/workshops with focus groups such as policy makers, animal health practitioners, WAHIS operators, etc.
  - Collaboration – e.g. workshops for the participatory development of new policies and procedures on implementation, and monitoring and evaluation (M&E) of aquatic biosecurity strategies.
  - Empowerment – e.g. delegate implementation, and M&E to country authorities and private sector.

## Priority technical issues and opportunities

18. The geographical isolation of countries, the limited availability of specialist expertise, resources and infrastructures, and narrow prospects for development of specialist capability across multiple disciplines are some of the significant limitations that countries face in implementing sustainable aquaculture development and effective aquatic biosecurity programmes.
19. Specific technical challenges on aquatic biosecurity have been identified by PICTs in various fora:
  - a. **CAPACITY:** Limited technical capacity on aquatic biosecurity (e.g., quarantine, disease management, border control, surveillance and response activities).
  - b. **RESOURCES:** Limited human/financial resources, equipment and infrastructure on aquatic biosecurity (e.g., quarantine, disease management, border control, surveillance and response activities)
  - c. **INFORMATION:** Inadequate or inexistent information on aquatic disease status at national and regional levels.
  - d. **GOVERNANCE:** Limited legislation and unclear policies relating to biosecurity, as well as limited effective enforcement.
  - e. **INTER-AGENCY COMMUNICATION:** Need for better inter-agency coordination.
  - f. **POLITICAL WILL:** Need for political commitment to the core values of biosecurity.