



GOBIERNO DE CHILE  
SUBSECRETARÍA DE PESCA



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

## INTERNATIONAL AQUACULTURE WORKSHOP

### Environmental and Social Responsibility for Sustainable Aquaculture

Sponsored by Canada – Chile Collaborative Agreement on Environmental  
Management of Aquaculture

Santo Tomas University, Puerto Montt, Chile  
March 20-21, 2006

#### Objectives

- To better understand future trends and upcoming issues from an industry, non-governmental organization, academic and government perspective.
- To improve environmental management of the sector to ensure market viability and competitiveness, public confidence, and environmental sustainability.
- To share best practices and experiences related to environmental management of the aquaculture sector.
- To discuss opportunities for future collaboration.

## FINAL REMARKS AND CONCLUSIONS

#### Monday March 20, 2006

##### Chair:

**Dr. Wendy Watson-Wright**

Assistant Deputy Minister-Science, Fisheries and Oceans Canada.

**Mr. Ricardo Norambuena**

Head of Aquaculture Division, Undersecretariat for Fisheries, Chile.

1. Monitoring programs are crucial to understand environmental changes related with aquaculture activities and can range from direct measurements in the environment to measures of aquatic animal health. All monitoring programs have the challenge of being cost-effective from both private and public interests. Importantly, they can be used in the early detection and mitigation of negative effects to the environment and farm productivity.



GOBIERNO DE CHILE  
SUBSECRETARÍA DE PESCA



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

2. We have seen several modeling and GIS based approaches of environmental and production information that can be used to predict the interaction of cultivation sites with the ecosystem. Depending on the perspective, models respond to specific questions or hypothesis using the best available information and there is a trend towards ecosystem based modeling that promotes the integration of sustainable aquaculture production in the coastal environment.
3. Models can be elaborate or very simple tools that inform public and private stakeholders and assist managers in making decisions to avoid potential negative effects to the environment. However, they are only part of a broader set of management considerations and it has been demonstrated today that models are constantly improving. The use of models outputs in management decisions will depend on the management questions and scientific acceptability of their results. Critically, the value of models is dependant upon the information used- this is a very nice way of saying, garbage in, garbage out. The role of science can not be overstated.
4. It is recognized that active participation of the private sector in meeting the challenge of sustainable aquaculture through cost-sharing efforts demonstrates social and environmental responsibility that can only helping promoting public confidence in production methods. Certification and audit programs further this goal by providing transparency to the regulatory system.
5. The information and analyses presented today provide signals and inputs for our particular interests and it is anticipated that these will serve as the basis for future collaborative research and information exchange agreements. It is clear that, our common interests and questions, our scientific and institutional capabilities, coupled with our partnership with industry, will ensure the long term contribution of aquaculture to global seafood production.

## **Tuesday March 21, 2006**

### **Chair:**

**Dr. Wendy Watson-Wright**

Assistant Deputy Minister-Science, Fisheries and Oceans Canada.

**Mr. Ricardo Norambuena**

Head of Aquaculture Division, Undersecretariat for Fisheries, Chile.

1. Overviews from different countries showed us several realities but a common interest: to promote and develop aquaculture as a source of sustainable economic and social benefits. This is important since failure to address issues associated with sustainability, irrespective of the country of origin, can lead to lost opportunities.
2. The various efforts to establish collaboration agreements between countries demonstrate the recognition that our shared objectives can be promoted through dialogue and cooperation. International collaboration is critical to managing the myriad of global oceans issues, of which aquaculture is one part. The Agreement between



GOBIERNO DE CHILE  
SUBSECRETARÍA DE PESCA



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

CHILE and CANADA is intended to begin a process of addressing these issues cooperatively through the promotion of public confidence in aquaculture production.

3. We must all recognize that the efforts made by the private sector to put in place management practices for environmental and social responsibility provide transparency to the industry that promotes public confidence in aquaculture products. This is fundamental to ensuring the long term contribution of the aquaculture industry to sustainable coastal communities and global food security.
4. It is important to understand the theory and concepts of sustainability indicators associated with aquaculture and to ensure that they are applied in a manner that demonstrates social responsibility.
5. Policies and regulations associated with integrated ocean management establish the necessary framework to support the continued growth of sustainable aquaculture in a way that minimizes marine use conflict and adverse environmental effects. Without this approach, the increasing demand for space and resources will generate increasing conflicts between users.