

Appendix 3

Latin America

Appendix 3.1

ACTIONS TO IMPLEMENT THE CAPACITY AND CONTRIBUTION OF THE PUBLIC SECTOR

Capacity and contribution of the public sector

Put in place and enforce adequate administrative procedures to facilitate orderly expansion

Implementation of proactive and adaptive public sector that facilitates technology transfer and technical assistance, encourages R&D and education, facilitates access to financial support, etc.

Involve municipal and local governments in aquaculture

Increased training for public sector employees to support aquaculture

Foster increased private-public sector partnerships

Increased awareness of public sector capabilities and limitations

Increase connection links with industry

Appendix 3.2

OTHER FACTORS WHICH MIGHT CONTRIBUTE TO REDUCE AQUACULTURE DEVELOPMENT IN THE REGION AND PRACTICAL MEANS TO LESSEN/CONTAIN THE LIKELIHOOD OF OCCURRENCE OF THESE FACTORS

Negative factors	Containment means
Lack of institutional support (legislation, codes of practice, etc.)	<p>Governments to recognize and prioritize aquaculture as an important economic activity</p> <p>Create or adapt Technology Transfer Institutions</p> <p>Prepare, pass and ratify proactive legislations including codes of practices and sanitary measures (e.g. HACCP) and put in place adequate administrative procedures</p> <p>Make educational plans, facilities and related material available to policy makers and users</p> <p>Training and capacity building for public sector</p>
Environmental concerns	<p>Governments to recognize that problems exist and find ways to tackle them rather than hiding them</p> <p>Develop practical and realistic environmental standards for aquaculture</p> <p>Get the industry well organized (producers' associations, good and permanent contacts with local governments and fellow associations, good public relations) and apply adequate codes of practice</p> <p>Instruct the industry on the potential for environmental damages</p> <p>Improve public awareness (for example, through existing media) of aquaculture benefits</p> <p>Encourage semi-intensive aquaculture activities</p> <p>Conduct EIAs before approving new farms/projects</p> <p>Develop practical and operational environmental regulation systems (including EIAs) with proper sanctions for their violation</p>
Economic policy issues of a general nature	<p>Prepare national and/or regional aquaculture development plans to orient both private and public activities in this field</p> <p>Publicize the potential of aquaculture to create jobs, supply protein, and to foster economic development in general</p> <p>Provide proper advice on international/global markets</p> <p>Provide incentives to the private sector to conduct R&D at the early stages of development</p> <p>Design adequate strategies to promote exports and/or local consumption as appropriate</p> <p>Implement economic policies which promote/encourage private sector investment</p>

Negative factors	Containment means
Economic policy issues of a general nature (cont.)	Develop and implement data collection models which are conducive to reliable statistics Set up computerized national statistics programmes Governments to systematically control private sector activities and its development
Lack of technical support	Create adequate institutional facilities, train monitors and help small-scale producers directly Public investments in extension services/programmes Increase financial support to training activities to improve training institutions, promote research and improve education of technical public sector staff Prepare and distribute adequate documentation Provide farmer-friendly manuals such as fliers and curricula to disseminate new technologies
Lack of financing for aquaculture	Design appropriate financial schemes such as creating microcredit with specific lines for the aquaculture sector Give proper licensing to aquaculture and enhance or backup aquaculture trust for banking/credit issues Call for investment proposals through open contests and finance the best alternatives available Source external funding Adopt self-financing farming technologies and informal lending mechanisms Integrate aquaculture in locally funded activities Develop revolving funds with low interest rates International financing agencies to provide loans via government. Governments to provide these funds to farmers at concessionary rates and long term payback periods Categorize aquaculture as a type of agriculture, requiring the same government financial support and incentives (there were divergences here in experts' rating)

Negative factors	Containment means
Lobbying by NGOs	<p>Publicize the potential of aquaculture to create jobs, supply protein, and to foster economic development in general</p> <p>Publicize aquaculture as having the potential to reduce dependence on capture fisheries, thereby preserving natural ecosystems</p> <p>Prepare adequate information, dissemination materials and training to staff</p> <p>Address the issues of concern. Don't conceal them</p> <p>Get the industry organized to respond responsibly and consistently</p> <p>Promote semi-intensive aquaculture (divergences in expert's rating)</p> <p>Develop proper environmental and social regulations to support sustainable aquaculture</p>
Decreased availability of feeds	<p>Look for alternative locally-produced feed and compost</p> <p>Increase use of plant protein</p> <p>Conduct more R&D for alternative raw materials and synthetic components</p> <p>Promote integrated aquaculture</p> <p>Adopt closed systems using natural feed (plankton)</p> <p>Use of herbivorous and omnivorous species</p> <p>Develop good connections with feed industry and new technologies in feed products</p> <p>Support technologies for development of new and less expensive protein sources</p> <p>Improve culture practices to diminish feed conversion factors</p>
Lack of technologies to farm endemic species	<p>Coordinate and give critical mass to R&D activities and make sure financing is made available for extended periods of time</p> <p>Support local research through better regional cooperation</p> <p>Training to personnel</p> <p>Select and focus on a small number of species with greatest potential and develop their farming technologies</p> <p>Foster greater linkages with countries possessing same or similar species and look for possibilities of transferring their technologies into the country</p>

Negative factors	Containment means
Spread of diseases	<p>Design and implement adequate administrative controls</p> <p>Organize the industry around farmers associations and clusters</p> <p>Have adequate laboratory facilities and trained staff</p> <p>Prioritize sanitary programmes and strengthen regional cooperation</p> <p>Establish government managed quarantine systems</p> <p>Adhere to established codes of conduct and practices</p> <p>Set up regulations on imports into and transfers within countries</p> <p>Develop and enforce proper health management practices and strong regulation with relevant private and public sector involvement</p>
Hurricanes or other catastrophic events	<p>Arrange for disaster prevention and recovery systems</p> <p>Develop efficient warning systems and emergency preparedness to farmers communities and local regional governments</p> <p>Timely disseminate relevant information</p> <p>Establish public rehabilitation banks in different areas of the country</p>
Civil unrest	<p>Generate employment</p> <p>Increase wealth distribution</p> <p>Develop proper communications with all stakeholders and support strong and realistic social/economic regulations for aquaculture considering proper share of incomes</p>

