

## **Fisheries/aquaculture case studies: Summary report of the ABDC-10 parallel session<sup>1</sup>**

In the parallel session for fisheries and aquaculture, three case studies on cryopreservation, polymerase chain reaction (PCR) based technologies, and genetic improvement of farmed tilapias provided examples where biotechnologies delivered key solutions for small farmers. They demonstrated that clear goals, sufficient time (several years) and long-term government support (to allow effective technology development, demonstration of value and uptake by farmers), the involvement of user groups from an early stage, and effective integration of the biotechnology with other aspects of the production system, were key factors behind their success.

In general, biotechnology uptake in fisheries and aquaculture has been limited, partly because of the relatively low biotechnology activity in the field, but where work has been done, because of the lack of involvement of end users (industry, farmers) in project development and lack of effective extension efforts. Additional impediments are costs of research, intellectual property issues, lack of public sector investment, confusion of biotechnology with corporate agriculture, and concerns for environmental impact. However, large potential for application of biotechnologies was identified.

The development of suitable national policies and legal frameworks to provide clarity for investors (private or public sector) will help adoption of biotechnologies, their downstream application and market acceptance. National policies can assist by providing frameworks that have identified stakeholders, mechanisms for their inclusion in project planning, and major issues to be included in planning such as risk assessment, quality controls, extension requirements and market assessments. The inclusion of such excellent expert advice will allow improved integration of technology development with practical application and societal outcomes. These frameworks would help informed negotiation for access to investment, noting the need for developing countries to collaborate with developed countries or corporate entities. Additional specific elements identified were public education to enhance understanding of biotechnologies and the use of collaborative collectives of small producers to access technologies.

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<sup>1</sup> This is the summary report of the roundtable organized by FAO on case studies in fisheries and aquaculture on the first day of the FAO international technical conference on Agricultural Biotechnologies in Developing Countries (ABDC-10) that took place in Guadalajara, Mexico on 1-4 March 2010 (<http://www.fao.org/biotech/abdc/parallel/en/>).