SECTION 6
Consensus Strategies and Recommendations

Workshop discussions developed a wide range of ideas for improving the education of fishery managers. Many of these were summarized by panel discussants and breakout groups that considered the three questions described below:

*Which ideas does the workgroup support?*

*If there are good ideas, what are the key barriers to making them work and what steps can we take to overcome them?*

*What actions could workshop participants undertake over the next 12 - 18 months to achieve these ideas and strategies? (Choose the top 3 most likely to have impact.)*

**Potential Strategies**
The six sector workgroups developed remarkably similar recommendations about improving fishery management education (see Appendix E for breakout summaries). The following strategies were presented by panelists and by two or more groups as top priorities:

1. **Develop creative partnerships:**
   - Support new educational partnerships: e.g., government, NGOs, industry
   - Support peer exchanges:
     - Managers and agency personnel
     - Share experiences
     - Cost sharing
     - Highly focused
   - Develop teaching fellowships to support government or industry participation in academic teaching
   - Design MBA/Public Administration partnerships
   - Develop policy simulation and management experiments using laboratories and the internet to link management and academic organizations internationally

2. **Use the management process as a learning experience:**
   - Conduct ongoing evaluation of management outcomes and feed results back into the management and learning process:
     - Evaluate stakeholder needs and behavior
     - Evaluate manager behavior, needs, and incentives
     - Use management analysis to design courses, case studies, simulation games
• Incentives and outcomes
  - Universities can gain access to management process, primary data for research
  - Stakeholders (include agencies)—can develop systematic learning experience

3. **Broaden and lengthen the fishery management career path:**
   - Recruit from a broader range of disciplines
   - Provide long-run management career paths including supportive working environments and educational opportunities

4. **Conduct a gap analysis of curriculum needs—existing and potential programs for educating all “classes” of fishery managers:**
   - Recognize the need and develop a minimum level of skills and knowledge for managers at all levels and classes of management (See Appendix H)

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Level

Sector or type of manager

Minimum level for all = basics
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• Needs assessment should include an evaluation of current employee recruitment patterns to provide a better picture of how manager positions are filled

5. **Complete the development of an international fishery management education and training website:**
   - Comprehensive database with links to all educational programs including industry and stakeholder training
   - Multilingual
   - Clearinghouse for programs and opportunities
   - Educational institutions market programs
   - Notice board for internships, secondments, and fellowships

6. **Design industry scholarships for fishery managers:**
   - Industry could signal their concern and ensure that students have a basic familiarity with industry
   - New Zealand industry would be willing; United States’ industry may be willing but would need someone/group to lead effort
7. **Develop a library of fishery management case studies:**
   - Perform a survey to determine existing cases already used in courses, and perform a literature search for existing published case studies
   - Case studies include written, video, policy simulation software
   - Establish a process, standards, and templates for case studies
   - Include a learning and evaluation component
   - IIFET could act as possible coordinator—special workshops for writing and developing cases, special sessions at conferences for presenting cases, provide structure, clearinghouse
   - Use *Marine Resource Economics*—a section in each issue or a whole issue devoted to case studies
   - Major barriers—funding and incentives compelling individuals to develop cases

8. **Organize a network of training providers and users:**
   - Need individual/organization to coordinate, head up network, provide accountability
   - International needs assessment by sector
   - Launch at World Fisheries Conference in Vancouver
   - Use internet and website as coordinating tools

**Barriers and Strategies for Overcoming Barriers**

A number of practical barriers were discussed that would hinder development and implementation of strategies:

- Institutional inertia—within (e.g., work overload) and between sectors
- Lack of understanding of importance by stakeholders
- Financial support
- Leadership
- Time
- Practicality
- Accessibility (local, global, time)
- Difficulty in determining appropriate service providers for training
- Cultural issues and diversity
- Institutional framework and terms of reference

None of these barriers was considered insurmountable. However, the workshop participants recognized that it would require a committed effort by national and international organizations to address these challenges. The actions summarized below were considered essential first steps in achieving success and overcoming barriers.
**Actions Workshop Participants Agreed to Undertake**

The final activity of workshop participants was to develop strategies to implement consensus conference recommendations during the next 12-18 months. Participants agreed to the following actions:

- Establish an international steering committee to develop the infrastructure to carry on the initiative
- Steering committee meets at IIFET in Wellington, New Zealand in August 2002 to discuss next steps in implementing actions; Develop initial terms of reference and funding possibilities
- Develop case study concept
- Complete the website to coordinate activities and act as clearinghouse for programs
- Consult with executive IIFET committee to determine interest in supporting efforts
- Make workshop results available to relevant audience
- Pursue funding possibilities and ideas within individual countries
- Pursue funding ideas through international funders: EU, NATO, World Bank
- Pursue partnerships—IIFET, FAO, World Bank, NOAA Fisheries
- NOAA Fisheries as a significant financial sponsor of this workshop agreed to review results and recommendation for follow through and support

**Next Steps**

Creating managers who are leaders, innovators, and creative decision makers is recognized as a critical step toward achieving effective management of 21st century fisheries. Participants in this inaugural international workshop were engaged and passionate about the many ideas and strategies discussed, and clearly saw value in developing training capacity for 21st century fishery managers. Since December, 2001 and the follow-up meeting at the IIFET 2002 conference in Wellington, New Zealand, the project has continued to gain in interest, and organizers have received several international inquiries for the workshop report and requests to join the new e-mail listserv (trainfishmngr@lists.orst.edu) associated with this initiative. A draft copy of the entire workshop report including appendices and presentations was made available online (http://oregonstate.edu/dept/trainfishmngr/) by mid-2002, and will be replaced by this final draft. Through the listserv and website, the steering committee will continue to gather information on progress within and among sectors and nations toward accomplishing the workshop strategies. However, momentum will be lost without significant and sustained commitment, in the form of funding, time, and cooperation, to strategies and coordination of this effort.