GLOBAL CHALLENGES IN RECREATIONAL FISHERIES

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Chapter 17

Recreational fisheries in the twenty-first century

Towards a code of conduct

Ian G. Cowx and Robert Arlinghaus

Abstract

Recreational fisheries are important in terms of income and jobs in regional and national economies, provision of social, cultural, physiological and psychological benefits for the practitioners, food security and biological impact on fish stocks. Yet no universally accepted code of conduct exists for the practice and management of the activity. The present chapter discusses fundamental issues critical for sustainable recreational fisheries management and practice. It is not the intention of this chapter to formulate a final code of conduct. This would require active involvement of all stakeholders, including practitioners, managers and policy makers. Instead, the aim of this chapter is to suggest that components of a code of conduct might ensure that recreational fisheries are conducted in a sustainable manner to maximize the environmental, social and economic benefits while minimizing potential negative impacts.

Introduction

It is now well established that the recreational fisheries sector is important in terms of employment, income generation in regional and national economies, food security in selected countries (e.g. Eastern Europe, IUCN 2004), and through provision of various social, cultural, physiological and psychological benefits to practitioners (Arlinghaus *et al.* 2002; Cowx 2002b). In the United States of America, there are 34.1 million participants in recreational fishing spending in excess of US$35.6 billion on equipment, transportation and lodging, and other expenses associated with their activity (US Fish and Wildlife Service 2001). Within the European Union, there are more than 3000 companies (manufacturers, and wholesalers) trading in recreational fishing tackle, representing 60,000 jobs.[1]

The combined annual turnover of these companies is over €5 billion. The European Fishing Tackle Trade Association estimated that total expenditure by recreational fishers in Europe on their hobby and related lodging and transportation is in excess of €25 billion annually. However, this is probably a vast underestimation because of lack of reliable and accurate data for many European countries. In Germany, for example, the direct and indirect expenditure by anglers in 2002 amounted to an annual financial turnover of €5.2 billion, with 52,000 jobs directly or indirectly dependent on this expenditure (see Section 2.5 by Arlinghaus Chapter 2, this volume). By comparison, the total value of commercial fishery import and export products by the 25 countries in the European Union in 2003 was estimated at respectively €24 and €13 billion, and employment in the commercial fishery sector in Europe was estimated at 746,000 persons.[2] However, in addition to various benefits of recreational fishing to society, impacts on fish stocks are increasingly being documented on a global scale (Arlinghaus *et al.* 2002; Post *et al.* 2002; Cooke and Cowx 2004, 2006; Lewin *et al.* 2006; Lewin *et al.* Chapter 4, this volume).

These socio-economic figures along with the potential of recreational fishing to impact negatively on fish and fisheries have led many governmental jurisdictions to pay increasing attention to recreational fisheries. However, it is somewhat incongruous that there is no universal code of practice or code of conduct for sustainable development specifically for recreational fishing within a framework that is tailored to modern societal needs and demands. By contrast, there are codes of conduct for commercial fishing (FAO 1995), European Coastal Zones[3] and recreational activities such as golfing[4] that have been successful in raising awareness of important issues, which in turn influenced behaviour of practitioners, legislation and management. A universal code of conduct for recreational fishing is particularly important because the activity is undergoing considerable change, sometimes for the worse, and action is urgently needed (Arlinghaus *et al.* 2002, 2007a; Cooke and Cowx 2004, 2006; Lewin *et al.* 2006). For example, over time the goal of recreational fisheries management in many industrialized countries has shifted from a focus on maximizing harvest or metrics of angling quality (e.g. total angler satisfaction) to incorporate fish biodiversity and conservation issues, protection of fish stocks, harmonization of conflicting stakeholder demands and incorporation of fish welfare considerations (Figure 17.1; see Arlinghaus *et al.* 2002, 2007a; Arlinghaus 2005, 2006 for example). This change in management focus has induced considerable change in traditional management practices from traditional regulatory management actions through fishery enhancement practices (e.g. stocking) towards habitat-orientated actions as a general trend worldwide (Figure 17.1). It should also be noted, however, that in most developing countries and in some less populated developed nations where the fisheries are exploited by people primarily for food and where stakeholder conflicts and anthropogenic alterations are minimal, recreational fisheries remains orientated towards maximizing catches and harvest.

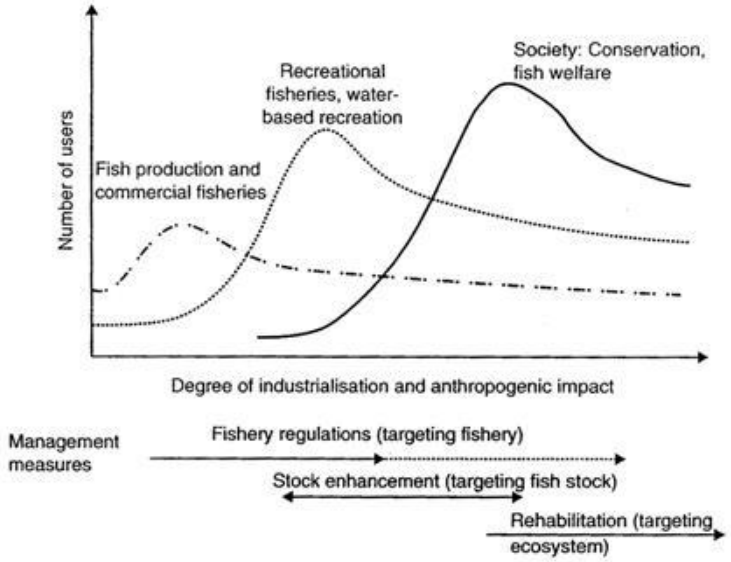

Figure 17.1 Schematic presentation of the life cycle of inland fisheries (modified after Arlinghaus *et al.* 2002) and the dominant measures to address issues of concern. With increasing degree of industrialization and associated anthropogenic influences, commercial fishing importance decreases, while the importance of recreational fishing increases. Ultimately, stakeholders other than fisheries, conceptually society as a whole, demand that fishing shall contribute to conservation and that fishing practices shall address fish welfare issues.

This chapter examines the need for a common code of conduct for recreational fisheries through an analysis of the constraints, threats and potential problems inherent within the sector, and identifies major aspects that should be included within the code to ensure sustainable development of recreational fisheries. It is not the intention of this paper to formulate a final code because this requires the active involvement of all stakeholders, including practitioners, managers and policy makers. Instead, the aim is to suggest components of a code of conduct that might ensure recreational fisheries and fishing are conducted in a sustainable manner to maximize the environmental, social and economic benefits, while minimizing potential negative impacts and stakeholder conflicts. Our hope is that this can spark a further debate and process that can eventually lead to the development, agreement and establishment of such a code.

Recreational fisheries: threats and impacts

A wide array of factors threatens fish and fisheries in general, and recreational fisheries specifically, but anthropogenic disturbance seems to underlie the decline of many fish species (see Cowx 2002a for review). The main perturbations can be broken down into: species introductions and translocations, impoundment of

rivers (dams and weirs, water abstraction and water transfer schemes), water quality deterioration (pollution, eutrophication, acidification), habitat degradation and fragmentation (channelization and land-use change, mineral extraction) and overexploitation. These problems seem to be universal. Although many issues are being addressed in developed countries through environmental legislation, the rate of progress in reversing the impacts is slow. This is largely because the cost of rehabilitation programmes or seeking alternative solutions to the demands on water resources, which underlies many of the problems, is prohibitive. In the developing world, where financial resources are limited, continued deterioration of the aquatic environment remains. Of these key threats, water resource development schemes are particularly insidious because the economic value of such schemes outweighs recreational fisheries benefits in many cases.

Despite the problems facing fish and fisheries, it is widely accepted that there is a need to protect the environment and biodiversity, including fish. This is evident from the numerous international conventions and directives (e.g. Bern and Washington Conventions, EU Habitats Directive 92/43/EEC, EU Water Framework Directive 2000/60/EEC, 2000, IUCN Red List) that underpin biodiversity protection, promulgated through Agenda 21 of the Rio Convention. This international recognition, which has filtered into the political arena, should be used to promote recreational fisheries, because anglers can be considered guardians of the environment and have direct interest in protecting fish stocks and species diversity (see, however, comments on stock enhancement). Fisheries management activities, for example, maintain and improve habitat on behalf of anglers, with the knock-on benefit that what is good for fish is invariably good for all other wildlife.

However, it should also be recognized that the activities undertaken in the name of improving the conditions for angling are frequently conducted without due regard of the possible detrimental effects of the actions (Cowx and Gerdeaux 2004). Two activities are of particular concern, that is, stock enhancement through stocking when this leads to introduction of new species or genotypes not native to the recipient ecosystem or when stocked fish interfere with wild fish to the detriment of natural recruitment, and habitat management when practices such as shoreline development to accommodate access for the angler modifies essential habitat for the fish. Additionally, impacts can occur due to excessive harvest mortality, selective angling mortality, litter, groundbaiting, and disturbance of the environment and wildlife from, for example, gaining access to the water or boat noise. Other issues arise from concerns over fish welfare, especially in relation to handling and playing of fish, holding of fish in keep nets and livewells, and catch-and-release fishing practices. The interested reader can find exhaustive reviews on these issues in the literature (Muoneke and Childress 1994; Bartholomew and Bohnsack 2005; Cooke and Cowx 2004, 2006; Lewin *et al.* 2006; Arlinghaus *et al.* 2007b). All of these issues nevertheless deserve to be included

and addressed in an international code of conduct to guide environmentally friendly sustainable recreational fisheries practices in the future.

Justification for a code of conduct of recreational fisheries

The FAO (1995) Code of Conduct for Responsible Fisheries (CCRF) states in its introduction that 'Fisheries, including aquaculture, provide a vital source of food, employment, recreation, trade and economic well being for people throughout the world, both for present and future generations and should therefore be conducted in a responsible manner'. The CCRF, however, does not address specific recreational fisheries issues and focuses on articles directed at nations and their fisheries management policy. Nevertheless, it is clear from the preceding that the recreational fisheries sector is important in social, economic, biological and food security terms. Many countries and organizations recognize the growing importance of the recreational fishing sector. For example, several regions see recreational fishing tourism replacing less sustainable and less profitable primary industries such as agriculture or commercial fishing. If recreational fisheries are not to become overexploited or degraded, as with commercial fisheries, an international code of conduct for recreational fisheries is considered essential for addressing the needs for more sustainable fishing practices and an agreed standard for recreational fishing. This is more so because of the huge popularity of recreational fishing, which can also potentially contribute to the destruction of vital fish habitats or harm fish populations through stocking and harvest mortality (see Cooke and Cowx 2004, 2006; Lewin *et al.* 2006). Also, a global code of conduct would help avoid the problems with conflicting angling practices, such as removal of catch in catch-and-release fisheries that are becoming prevalent as more and more fishers move across national borders, either as tourists or migrants. A common code should reduce misunderstandings by providing a unifying perspective. The overall objective should be to support the responsible use of aquatic resources, ensuring that present and future generations can enjoy and further develop the recreational benefits of these aquatic resources.

Furthermore, several international conferences (e.g. Hickley and Tompkins 1998; Pitcher and Hollingworth 2002), and international organizations, agencies and angling bodies (e.g. FAO–EIFAC, Food and Agricultural Organization of the United Nations–European Inland Fisheries Advisory Commission; EAA, European Anglers' Association; and IUCN, International Union for the Conservation of Nature and Natural Resources) have highlighted the need for a code of conduct for recreational fisheries as an international policy document. It is important to recognize, despite considerable environmental and cultural differences, that the millions of recreational fishers worldwide face similar issues and concerns. Moreover, an international code would reduce the need for national, provincial and local authorities to develop their own code as they could use and adapt

an international code that sets a minimum standard to their local needs and circumstances. As many recreational fishers participate on a casual basis, it is important that they can find some guidance on what practices are acceptable from both national and international perspectives. An international code of conduct would provide the guiding principles for those who are involved in recreational fisheries and for those who would develop more specific codes of conduct locally or regionally.

Hence, with a universal code of conduct, we envisage a policy document that complements nation-specific legislation and regional-specific best-practice guidelines and fishing regulations that exist worldwide. It should serve as a framework that describes the minimum standards of environmentally friendly, ethically permissible and, depending on local situations, socially acceptable recreational fishing. It should discuss and clarify the most important issues critical for sustainable recreational fisheries management and practice. Although many of the issues to be included in the code are already addressed through national fisheries legislation and regional fisheries management regulations in many countries, an international code can help in making these approaches more coherent globally. The code cannot have a legally binding character on a global scale, but such a code can have a major impact through the voluntary adherence to the minimum standards set in the document or by serving as a universally accepted policy document guiding local regulations and education campaigns. For example, it can play an influential role in guiding fishing practices from local to international domains (Figure 17.2). This is important because anglers must recognize that they are integral in the management of the resources they exploit, and must adopt practices that are not in conflict with animal welfare and conservation lobbyists if they are to maintain their pastoral image of protecting and maintaining the aquatic environment in society. In this context it is important that anglers behave in a manner commensurate with protecting the environment and treating their catch in a humane way. Such a code will, therefore, be primarily useful for policy makers, representatives of angler associations, unions and clubs, the angling industry, local and regional fisheries managers and applied fisheries scientists to serve as a communication tool for best practices for individual anglers and angler groups and local recreational fisheries management. It may also help to raise awareness of recreational fishing for policy makers traditionally focusing on commercial fishing (e.g. European Commission).

Framework for a code of conduct for recreational fisheries

Although protocols and procedures are available to address many of the issues raised above, these need to be collated into a format that is understandable by all practitioners and interested parties. A good example, what is possibly the most comprehensive code of practice available to date is the Australian National Code

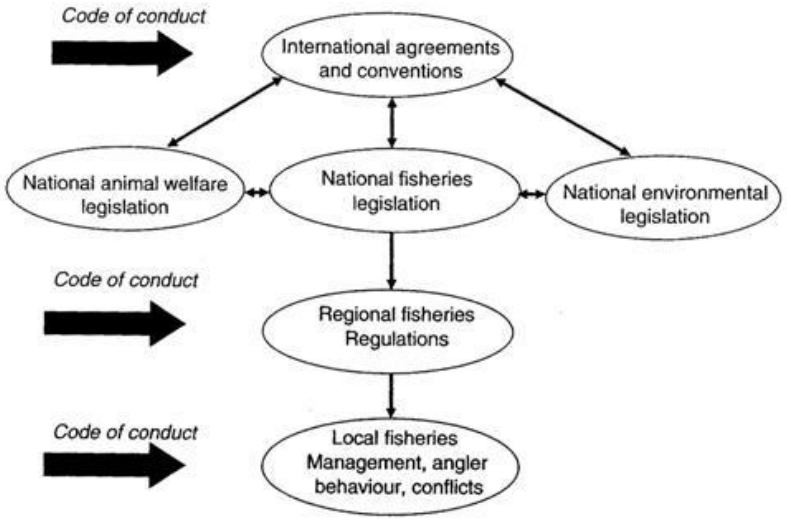

Figure 17.2 Schematic outline of areas where the international code of conduct for Recreational Fisheries can serve as a guideline for best recreational fishing and fisheries management practices. Areas are indicated by the thick black arrow. Although a code of conduct might theoretically also directly influence national fisheries legislation, we feel that such influence might primarily arise through international conventions or regional stakeholder pressure.

of Practice for Recreational and Sport Fishing (Recfish Australia 1996). This document highlights the key issues and practices to ensure angling is carried out in a manner acceptable to the sector and society in general. It also highlights the need for the code to be written in a sympathetic manner that anglers, managers and planners can refer to and assist in their decision-making processes. The following components could form the framework for a universal Code of Conduct, which should provide guidelines for both the practice and management of recreational fisheries. They are broken down into

- fish and fishing
- fisheries and habitat-related issues
- interactions between users
- safety
- legislation and regulations.

Fish and fishing

Fish welfare is an important component of any code. Good treatment and handling of fish is critical because it not only reflects the relationship anglers have for their quarry but also how they respect nature and living organisms (Arlinghaus

et al. 2007a). The code should provide guidelines to ensure that only tackle appropriate (and legal) for the size and type of fish is used, that fish are retrieved quickly and handled correctly on capture, and that holding facilities (keep nets and livewells) are appropriate for maximizing the chances of survival of fish to be returned to the water after the fishing event. It is imperative that instructions are given on how to release fish after capture or humanely kill them. Avoiding practices such as leaving fish flopping around on the ground, lying exposed to sunlight or being killed and dumped on the shore should be emphasized. A code must also emphasize cultural issues surrounding differences by which various cultures view specific angling practices, such as catch-and-release fishing. For example, catch-and-release fishing is incompatible with the value systems of many indigenous people and recreational anglers have to be made aware of these issues.

Guidance on good fishing practices, such as always being in attendance of the fishing gear, issues associated with excessive groundbaiting (Arlinghaus and Niesar 2005) and how to minimize disturbance to wildlife, in addition to taking home all litter and discarded tackle (see later), and using 'fish friendly' tackle (e.g. knotless landing-nets, circle hooks), should also be provided in the code.

Fisheries resources

As mentioned previously, recreational fisheries can have a major impact on fisheries resources, both in terms of intense and selective exploitation and manipulation of the stock to enhance the fishing experience. The code of conduct must address both issues.

Intense fishing pressure, potentially contributing to overexploitation, is common in some recreational fisheries [see Cooke and Cowx (2006) and Lewin *et al.* (2006) for exhaustive examples], and there is information available on the effects and efficiency of common regulatory measures such as minimum length limits. In particular, the roles of catch-and-release, close seasons and closed areas, conservation areas, harvest regulations, gear restrictions and access restrictions, which are common tools to reduce exploitation pressures in commercial fisheries, should be highlighted. Reference should be made to the limitations and advantages of each intervention to ensure application of the correct measures to the fishery in question. However, an important point to stress in any code is the careful return of excessive catches (especially where bag limits on catch exist), unwanted or threatened species to the water.

Stock enhancement is a much used and frequently abused fisheries management activity (Cowx 1994). This is because the social and economic value of recreational fishing is high and environmental issues are sometimes ignored (Cowx 2002b). Reversing these philosophies is going to be a major challenge, but must

be given high priority within any code of conduct. The code must play a pivotal role in providing strategies to minimize, or preferably prevent the deleterious effects of stock enhancement activities (Cowx 1998a, 2002a). EIFAC (1998), Cowx (1999) and ICES (2005) have provided protocols and guidelines for this purpose, and these can be adapted for the Code. This will require a risk-assessment-based approach for fisheries enhancement activities (with legislation and regulations strengthened to relate to the potential risk of the management interventions) highlighting acceptable and less acceptable stock enhancement practices. For example, whereas stocking a recreationally valuable fish species into a small isolated water body lacking natural recruitment, such as a pond, is technically a viable option in many countries, stocking the same species in great numbers into a naturally reproducing population that provides acceptable fishing returns would be unacceptable because it potentially poses a risk to the wild stock (Hickley *et al.* 2004).

One issue that has gained prominence in recent years is the impact of selective fishing on fish population structure. Whilst it is difficult to provide precise guidance on the ways to address the problems, because they are intrinsically linked with fishing, anglers and managers should be made aware of the potential causes and effects through the code.

Habitat

Guidelines related to habitat could orientate around three aspects: improvement for fishing, disturbance and degradation arising from recreational fisheries activities and protection of wildlife. The code should cover all three aspects.

When improving or enhancing fisheries, the code should make anglers and managers aware of the fragility and environmental diversity of riparian and aquatic vegetation and how these provide food, shelter and important breeding and nursery areas for many fish species and wildlife. Guidance on methods to improve the fishery whilst protecting wildlife and ecosystem functions and services is also important. Reference to the appropriate manuals and books (e.g. Cowx and Welcomme 1998) on the subject will be necessary to address all components, but the code must offer guiding principles to promote awareness of the issues.

Mechanisms to prevent pollution from angling litter and consumables, and reduce disturbance from bait-digging, boat noise and wash, anchor and wading damage, and gaining access to the fishery need to be highlighted in the code. This should include simple solutions from taking litter home or disposing of it in an appropriate manner to increasing awareness of the problems created by destruction of habitat caused by trampling and the knock-on effects on wildlife. Reference to the various countryside codes that exist may offer guidance here.

Recreational anglers are key guardians of the aquatic environment and they have a responsibility to protect and report pollution problems to the relevant authorities. The code must encourage them to report pollution incidents and discharges, stranded or dead aquatic animals and protected species, damage to vegetation or stream damage, for example, sedimentation, declining water quality, algal blooms and the occurrence of invasive species.

Interactions between users

An issue that needs attention within the code is harmonization of conflicts between fisheries and wildlife conservation groups, for example, those protecting birds (Cowx 1998b, 2003; Arlinghaus 2005). The solution probably lies in the optimization of resource allocation of the fish stocks to satisfy both groups. Essentially, sufficient fish must be available to satisfy the demands of the anglers/fishers in terms of catching success whilst allowing the birds and other wildlife to coexist. As previously indicated, the problem arises because the fish stocks are often inadequate to meet the recreational fishing needs. Cowx (2003) suggested three mechanisms to ameliorate the problems: (1) addressing overexploitation of the fish stocks that may exist; (2) rehabilitation or habitat improvement to reinstate spawning and nursery areas, and provide optimal conditions for growth and survival of fish (Cowx and Welcomme 1998) and (3) reduce foraging opportunities for the birds, for example, through the use of fish refuges (Defra 2006). Cowx (2003) also explicitly indicated that stock enhancement is not an overarching mechanism to achieve optimal resource allocation because stocked fish tend to be naïve and prone to predation, and should only be considered as a last option. These approaches should be inherent within the code as guiding principles for optimal utilization of the aquatic resources for all user groups, in addition to resolving the issues especially with fish-eating birds. It is only through strategies such as this that the conflicts inherent within the recreational fisheries sector will be resolved.

It must be recognized that angling goes beyond the interaction between the participant and the fish and its environment. Interactions between people are a fundamental component of enhancing the enjoyment and pleasure gained from recreational fishing. People interact in many ways, both during the angling experience but also between groups exploiting the aquatic environment in different ways. Anglers must be aware of these interactions and act accordingly. Anglers must also have due respect for the fishing experience of their fellows and behave in a manner that does not interfere with that experience. This could involve making undue noise, disrupting the fishing capability of the fellow angler or degrading the habitat. Anglers must also be aware of the needs of other users such as walkers, canoeists and conservation groups, as must these groups

have an awareness of the needs of anglers. Voluntary codes of conduct and memoranda of understanding (MoU) exist between these groups in several countries, allowing access to shared waters but laying down rules to avoid conflict. The MoUs are particularly important because they reflect active dialogue between user groups and agreement to respect each other's activities. Lessons learnt from these codes and MoUs can benefit the proposed code of conduct for recreational fishing.

Beyond the interactions with and between user groups, anglers must have respect for managers, officials, rights holders and peers. These people have a role to maintain the quality of the recreational fishing and it is their duty to ensure that the anglers adhere to the rules and regulations. Without such enforcement, the quality of the fishery is likely to deteriorate. Thus, when anglers are challenged to produce the correct certification or license, or to prove they are following the regulations, they should do so in a manner that is commensurate with the request. The code should stress this point strongly.

Landowners or those that have traditional fishing rights should be given similar respect. Permissions should be obtained from the riparian owners and traditional countryside practices that avoid interfering with, harming or harassing crops, livestock or wildlife must be followed. Recognition should also be given of the cultural and spiritual attachment indigenous people feel for their fish, land and water.

Safety

Operating near water has inherent risks and playing it safe while fishing is good common sense. The code of conduct must stress the potential risks associated with fishing and provide simple guidelines to minimize these risks. These include taking due care while trying to catch a fish; observing and understanding boating regulations; keeping a safe distance from shore-based anglers, jetties, swimmers and other boats and particularly being aware of the dangers surrounding the environment being fished, for example, wave actions and currents, submerged hazards or eroding river banks. Naturally, the code of conduct should encourage the use of relevant safety equipment.

Legislation and regulations

Most jurisdictions have well-established regulations to manage the fisheries, protect fish stocks and fish habitat and prevent illegal fishing activities. While such regulations have worked in many cases, some have failed, in part due to lack of enforcement and inadequate monitoring resources (Post *et al.* 2002). It is important that the fishing community does not ignore activities that threaten

the fisheries and damage the reputation of responsible fishers. Consequently, the code must stress the importance of:

- fishing licensing and permit requirements
- keeping up to date with regulations and observing them
- acquainting themselves with gear and catch restrictions, including close seasons and closed areas
- reporting poaching, theft and illegal fishing to the relevant authorities.

In this context, it is important to recognize that cultural differences and lack of awareness of national regulations may lead to local conflicts over access and fishing practices between owners, anglers and indigenous peoples with rights to fish. The code should raise awareness of these potential conflicts as a precursor to managing recreational fisheries in a global market.

Considerations for the future

Provision of a code of conduct will provide many advantages to the recreational fisheries sector including

- improved understanding of impacts of recreational fisheries
- assessment of and potential resolution of conflicts between sectors and user groups
- identification of issues of conservation concern
- a focus for viable dialogue, at global, regional, national and local level
- offering a platform for exchange of experiences and the identification of best practices and behaviour
- raising awareness among relevant actors and stakeholders within the recreational fishing community
- promotion of traditional management measures
- promotion of low risk and sustainable enhancement measures
- promotion of benefits of angling in society
- promotion of integrated aquatic resource management or ecosystem-based management
- promotion of environmentally and socially friendly behaviour of anglers.

Such a code can have a dual role in influencing international fisheries management through its incorporation into international agreements and conventions, and national and local fisheries management through its influence on regional fisheries and angler behaviour (Figure 17.2). The best way to achieve this aim is delivering a code agreed upon by international bodies such as EIFAC and international and national angler associations such as EAA through regional and local angler bodies and clubs. These efforts would capitalize on the long-term self-interests of anglers as guardians of the environment.

This would create spin-over benefits for conservation in general. Anglers are excellent ambassadors to promote the fish cause. More opportunity needs to be made of anglers' willingness to support environmental and conservation campaigns because the general public often has poor awareness of the issues and problems facing freshwater fish (Cowx 2002a). Similarly, fishing clubs and organizations should be encouraged to promote protection of fisheries and front environmental lobbying of potentially damaging development projects. In addition, recreational fishing is an excellent opportunity to support urban regeneration through enhancement of degraded waters. This has major social benefits, including increasing employment opportunities (Hickley *et al.* 2004). Consequently, a code should exploit these opportunities by providing procedures and mechanisms to ensure recreational fishing is operated in a sustainable manner.

Increasing pressures on aquatic resources dictate that recreational fisheries can no longer be treated in isolation and an integrated approach to aquatic resource management is required (Cowx 1998b; Arlinghaus and Cowx Chapter 3, this volume). Fishing opportunities are being constantly eroded, not only by exploitation of fish directly but mainly through degradation of their habitat. However, the demands for sustainability have put emphasis on the need to manage exploited resources. Consequently, conflicts between these various interests must be resolved by involving all stakeholders in the management process. This can be achieved through integrated aquatic resource planning and management (Cowx 1998b). Aquatic resource management plans, at both the national and multinational scale, will support this process but the profile of recreational fisheries needs promoting and better integrating into the planning process. A code of conduct can be an important platform for the recreational fishing sector in its dialogue with other major users and interests in aquatic resources.

However, to be viable, a code of conduct must be adopted by the recreational angling practitioners and must evolve as new issues and conflicts arise. Consequently, it is recommended that the Code of Conduct for Recreational Fisheries is institutionalized as an annex to the FAO Code of Conduct for Responsible Fisheries (FAO 1995) and is adopted by member states of FAO and by international angler associations such as the EAA. This will give the code the recognition it deserves and a focal point for governments and agencies. It will also provide the necessary infrastructure for development and updating of the code on a timely basis.

Notes

1 http://ec.europa.eu/maritimeaffairs/contributions_post/22european_anglers.pdf
2 http://www.fao.org/figis/servlet/static?xml=FIDI_STAT_org.xmlanddom=organdxp_nav=3,1,1
3 http://www.coastalguide.org/code/index.html
4 ttp://www.gao.ca/index.cfm/ci_id/1261/la_id/1.htm

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