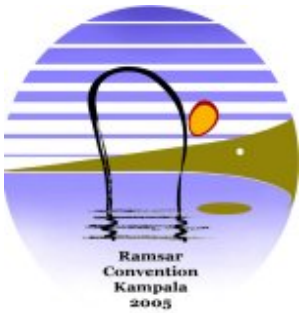

9th Meeting of the Conference of the Parties to the Convention on Wetlands (Ramsar, Iran, 1971)

"Wetlands and water: supporting life, sustaining livelihoods"

Kampala, Uganda, 8-15 November 2005

Resolution IX.4

The Ramsar Convention and conservation, production and sustainable use of fisheries resources[1]

1. RECOGNIZING the important role that inland, coastal and near-shore marine wetlands play in supporting aquatic species populations and fisheries resources;

2. CONSCIOUS that fishing is of great social, cultural and economic importance throughout the world;

3. RECOGNIZING that fisheries resources are a vital source of food and income for millions of people, which can assist in the further reduction of poverty, and CONCERNED that the Millennium Ecosystem Assessment (MA) has reported that fisheries yields in many parts of the world are declining due to unsustainable harvest, habitat degradation, and loss of fisheries resources spawning and nursery grounds, as well as feeding and refuge areas and NOTING that the different fisheries techniques and related activities within or adjacent to wetlands (from catch to consumption) may impact on other biota;

4. CONCERNED by the loss of fisheries resources and the increasing number of aquatic species recognized in the IUCN Red List as globally threatened, and AWARE of the important role that some Ramsar sites play in the conservation of endangered aquatic biota;

5. AWARE of the lack of sound scientific data on fisheries resources in many wetlands;

6. RECALLING the relevance of the guidance adopted by the Convention on integrating wetland conservation and wise use into river basin management (Resolution VII.18) and coastal zone management (Resolution VIII.4) to securing the integrated management of wetland ecosystems upon which fisheries resources depend;

7. ALSO RECALLING that in Resolution VIII.2 the Conference of the Parties encouraged "Contracting Parties, wherever possible and appropriate, to take the necessary steps in order to maintain the migration access for indigenous [native] fish and other species past dams";

8. COMMENDING those Parties that have taken actions to conserve or restore native aquatic species populations and their habitats, such as through habitat restoration, the

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1 "fisheries resources": fish, crustaceans, mollusks and algae.

provision of fish passages past in-stream infrastructure, the control of invasive alien species competitors, the control of unsustainable aquaculture practices and/or the reduction of water pollution impacts;

9. NOTING the comparative ecosystem benefits gained from supplying protein from sustainable fisheries, thereby alleviating agricultural pressure on land and in reducing water pollution;

10. ALSO NOTING the widespread growth in aquaculture, its potential benefits for increasing fish resources and reducing environmental costs, and the need for careful planning and management to avoid negative impacts upon native aquatic species and wetland ecosystems;

11. AWARE of the adoption by the UN Food and Agriculture Organisation (FAO) of the *Code of conduct for responsible fisheries* (1995) and its subsequent associated range of Technical Guidelines, and of the recognition that these give to the need to promote sustainable use of fisheries resources and to mitigate negative impacts of aquaculture practices;

12. ALSO AWARE of the ongoing work of the Comprehensive Assessment of Water Management in Agriculture (CA) led by the International Water Management Institute (IWMI) and its relevance to issues of wetlands, capture fisheries and aquaculture;

13. RECALLING that Action 1.2.6 of the Ramsar Strategic Plan 2003-2008 calls for an assessment of "the contribution of Ramsar sites and other wetlands to the maintenance of fisheries, including utilizing information available from the Millennium Ecosystem Assessment (MA) and other assessment programmes, and [recommendation of] sustainable management practices which can contribute to the WSSD target of, where possible by 2015, maintaining or restoring depleted fish [fisheries resources] stocks to levels that can produce the maximum sustainable yield" and ALSO RECALLING the Programmes of work of the Convention on Biological Diversity on inland waters and coastal and marine biodiversity;

14. RECOGNIZING that coral reefs are amongst the most complex, species-rich and productive of marine ecosystems, covering less than 1% of the ocean's area yet home to one-third of all marine fish species, that coral reef fisheries are estimated to yield 6 million metric tons of fish catch annually, with one-quarter of the total worldwide fish production being in developing countries with coral reefs, and that they provide a habitat for a significant proportion of marine biodiversity;

15. RECOGNIZING that several environmental benefits/services are provided by mangrove ecosystems including coastal protection, nutrients and sediments retention and carbon dioxide sink, their special relevance as nurseries of various aquatic species, and their protective role to the existing associated ecosystems such as coral reefs and sea grass beds, and HIGHLIGHTING the importance of mangrove ecosystems, including their associated tidal flats, and estuaries as a source of fisheries resources to several coastal communities;

16. AWARE that, according to the FAO World Mangrove Atlas, mangrove areas are being destroyed at a rate of 1% a year, despite their relevance to fisheries production;

17. ALSO AWARE that sea grass beds are vital as spawning grounds, habitat and refuge for many marine species at different stages in their life cycle;

18. RECALLING Resolution VIII.10 which recognized these ecosystems as being under-represented on the Ramsar List;

19. AWARE of the WSSD Plan of Implementation actions concerning the establishment of marine protected areas, the CBD COP7 Decision VII/5 on marine and coastal biological diversity, the CBD Programme of work on protected areas (Decision VII.28), and the recent work of the FAO Committee on Fisheries (CoFi) on the role of marine protected areas (MPAs) in fisheries management; and NOTING the urgent need to address the under-representation of protected areas in marine and coastal habitats and in inland waters through National Plans for Protected Areas;

20. NOTING with satisfaction the financial support provided by IUCN, WWF and the World Fish Centre in the implementation of Action 1.2.6 of the Ramsar Strategic Plan 2003-2008 and their role as advocates and technical advisors in relation to aquatic resources and sustainable fisheries, and FURTHER NOTING their collaboration with the Scientific and Technical Review Panel through the preparation of a 'Review of Ramsar Sites and Fisheries Maintenance', to be published as a *Ramsar Technical Report*, and the outline of issues and recommendations concerning wetlands and the conservation and sustainable use of fisheries resources annexed to this Resolution; and

21. ALSO NOTING that Wetlands International and IUCN-The World Conservation Union have established a Freshwater Fish Specialist Group that will provide advice on priority actions for freshwater fish conservation to Contracting Parties, river basin organizations and others;

THE CONFERENCE OF THE CONTRACTING PARTIES

22. CONFIRMS that this Resolution covers issues in inland, coastal and marine fisheries in wetlands within the scope of Article 1 and Ramsar sites within the scope of Article 2.1 of the Ramsar Convention;

23. URGES Contracting Parties to apply as appropriate the recommendations annexed to this Resolution when addressing issues of the sustainable use of fisheries resources in relation to the conservation and wise use of Ramsar sites and other wetlands;

24. URGES Contracting Parties to review their policy frameworks and institutional arrangements, in line with Resolutions VII.6 on National Wetland Policies and VII.7 on reviewing laws and legislation, so as to ensure that fisheries management authorities and those involved with conserving and/or managing aquatic biodiversity are aware of, complement and support national, subnational and local efforts to implement the Convention;

25. REQUESTS fisheries authorities responsible for managing fisheries within, adjacent to, or associated with Ramsar sites to ensure that their activities support the maintenance of the ecological character of the Ramsar site (or sites);

26. URGES Contracting Parties and INVITES relevant organizations to use the habitat and species conservation provisions of the Convention to support the introduction and/or continuance of management measures that mitigate the environmental impacts of fishing, including the use of spatial management approaches as appropriate, and ALSO URGES the Ramsar Secretariat to work with other conventions, instruments and organizations concerned with the conservation of biodiversity and the management of natural resources (including FAO at an international and regional level), in order to promote the synergy and alignment of planning and management approaches that benefit the conservation and sustainable management of fisheries resources and recognition of the contribution this makes towards meeting CBD targets, WSSD goals, and Millennium Development Goals (MDGs);

27. ENCOURAGES Contracting Parties to liaise with relevant partners to undertake inventories, assessments and monitoring of fisheries resources which depend on wetlands;

28. REQUESTS those responsible for the management of Ramsar sites to incorporate into their management planning processes, in line with Resolution VIII.14 on management planning, measures to maintain the ecological benefits/services of wetlands including sustainable fisheries;

29. REQUESTS Contracting Parties to review and, where necessary, enhance national and regional programmes for the systematic collection of ecological and socio-economic data on fisheries, including artisanal fisheries, and data on aquaculture of relevance to Ramsar sites and associated areas;

30. URGES Contracting Parties to take the necessary steps within their frameworks for integrated river basin and coastal zone management to maintain or reinstate aquatic biota migration pathways, to reduce the impacts of point source and diffuse pollution in all its forms, to establish and implement environmental flow allocations supporting the conservation of aquatic biota, to protect critical spawning and nursery grounds, and to restore relevant habitats where these have become degraded, taking into account the guidance adopted in Resolutions VIII.1 on water allocation, VIII.4 on Integrated Coastal Zone Management, and VIII.32 on mangrove ecosystems;

31. URGES Contracting Parties carefully to control aquaculture (e.g. pond and cage culture) practices in Ramsar sites and in areas that are liable to impact on Ramsar sites and other wetlands so as to prevent adverse changes to the ecological character of wetlands, applying the provisions of the 1997 FAO Code of Conduct and its associated Technical Guidelines for Responsible Fisheries – Aquaculture Development and the 2000 Bangkok Declaration and Strategy for Aquaculture Development (Network of Aquaculture Centres in Asia-Pacific (NACA)/FAO))**;**

32. STRONGLY URGES each Contracting Party to enforce existing policies and legislation to suspend any promotion, creation of new facilities, or expansion of unsustainable aquaculture activities harmful to wetlands, in line with Resolution VII.21 on intertidal wetlands;

33. ALSO STRONGLY URGES Contracting Parties with mangrove ecosystems in their territories, taking into account the provisions of Resolution VIII.32, to review and, as

appropriate, to modify any of their national policies and strategies that have or could have harmful effects on these ecosystems, and to implement measures to protect and restore the benefits of these ecosystems for human populations, recognizing their rights, uses and traditional customs and the maintenance of biodiversity, and to cooperate at the international level to agree regional and global strategies for the maintenance of these ecosystems;

34. FURTHER STRONGLY URGES each Contracting Party, in order to maintain the ecological character of wetlands, to review its policies, laws and programmes for regulating the introduction of aquatic biota for aquaculture and the aquarium industry, to control the accidental movement of species for example through ballast water, to avoid introduction of invasive and/or alien species, and to undertake the necessary measures to prevent the introduction or spread of known alien and/or invasive aquatic biota (including invasive alien genes), in line with Resolution VIII.18;

35. URGES each Contracting Party with coral reef, sea grass beds and other associated ecosystems in their territories to implement national programs for the protection of these ecosystems through the establishment of effective protected areas, monitoring programs, awareness programmes and cooperation for innovative coral reef, sea grass beds and associated ecosystem restoration projects;

36. ALSO URGES each Contracting Party to take necessary steps within their policies and national systems of protected areas for establishment and recognition of inland, coastal and marine protected areas as a tool for biodiversity conservation and fisheries resources management;

37. REQUESTS each Contracting Party to take into account the provisions of Resolution VII.36. which highlights the importance of participatory management to be considered in policies, actions and programs for the conservation and sustainable use of fisheries resources;

38. REQUESTS the Ramsar Secretariat to draw attention to the important role of wetlands in fisheries resources conservation and sustainable use through its ongoing CEPA activities, in particular through future World Wetlands Day celebrations and events;

39. REQUESTS the Secretary General to pursue appropriate partnerships with expert bodies or organizations such as The WorldFish Center and FAO that are concerned with fisheries resources/resource conservation and sustainable use, in order for the Ramsar Convention to gain further advice and to fulfill its mandate;

40. REQUESTS the STRP to consider ways and means of elaborating the annex to this Resolution, taking into account the findings of the Millennium Ecosystem Assessment (MA), the Comprehensive Assessment of Water Management in Agriculture (CA), and other relevant assessments, in order to provide further guidance for Contracting Parties on wetlands and their relation to sustainable fisheries; and

41. ENCOURAGES Contracting Parties to assist fishers in gaining access to environmentally friendly technologies for fisheries and related activities.

Annex

Issues and recommendations for Contracting Parties concerning the management of sustainable fisheries in Ramsar sites and other wetlands

Note: these recommendations cover issues in both inland and coastal fisheries in wetlands within the scope of Article 1 and Ramsar sites within the scope of Article 2.1 of the Convention. .

Issue 1: Aquaculture

- Aquaculture is practiced in many Ramsar sites and in the waters adjacent to such sites and is sensitive to social, economic and technological changes that can impact on the nature of associated wetlands. Aquaculture also carries with it many risks to the environment and to native fisheries resources, and conversion of, for example, natural mangrove systems to aquaculture can greatly reduce the total value of the ecosystem benefits/services for people.

Aquaculture (e.g. pond and cage culture) practices in Ramsar sites or in areas that are liable to impact on Ramsar sites should be carefully controlled. Specifically, governments are encouraged to enforce relevant national legislation, apply the provisions of the FAO Technical Guidelines for Responsible Fisheries – Aquaculture Development (FAO 1997) (STRP to check whether guidelines or also the code), the Bangkok Declaration and Strategy for Aquaculture Development (NACA/FAO 2000).

Sustainable aquaculture may be facilitated through the use of native species and genomes where possible, and the minimization of the use of chemicals and the prioritization of new sustainable technologies for aquaculture

Issue 2: Rice cultivation

- Rice cultivation is sustainably practised at many Ramsar sites, and there are opportunities to improve the total yield of such areas by "rice-fish" systems in these and other wetlands cultivated for rice.

The significance of fisheries in sustainable rice cultivation within Ramsar sites should be further explored and documented and a more efficient combination of "rice-fish" management practices promoted.

Encouragement of the cultivation of native species of fish in association with rice and reducing as much as possible the use of chemicals may enhance the conservation of wetlands.

Issue 3: Management of fisheries

- In some countries, fisheries management based on central governmental control has generally failed to halt the degradation of fisheries resources stocks. A participatory approach is recommended for the inclusion of all stakeholders in the management process.

Participatory management in appropriate sites should be encouraged and facilitated by revising any existing laws and regulations that exclude it, supporting research, and establishing suitable management systems at international, national and basin levels.

- Co-management systems are frequently difficult to establish because of social traditions, land and water use practices, and legislation.

Fisheries legislation and regulations should promote the participation of stakeholders in the formulation of policies for the management of the resource.

- Growing numbers of people using a fishery can mean that the resource is increasingly overfished.

Measures should be adopted to control to the use of fisheries in Ramsar sites and other wetlands where these are not already in place.

- By-catch of globally-threatened and other wetland-dependent species in fishing gear (such as turtles and waterbirds in gill-nets) continues to threaten the survival of these species.

Measures should be put in place to minimize or prevent by-catch through the use of appropriate fishery techniques.

- Ecologically damaging fishing gear continues to be used in many fisheries.

Where ecologically damaging fishing practices or gear (which may include activities which significantly alter habitat structure, prevent movement of species, or otherwise alter ecological character), are affecting, or are likely to affect, a listed Ramsar wetland, appropriate action should be taken to address the threat of damage to that site caused by such use.

Issue 4: Management of the fisheries resources

- The introduction of alien and/or invasive species in natural fisheries areas poses a growing threat that puts at risk the survival of native species or genomes.

Many inland and coastal fisheries rely on regular stocking programmes: such stocking programmes should preferably use indigenous fish species or genomes. Contracting Parties are encouraged to adopt effective legal tools and programmes to prevent and minimise the introduction of alien and/ or invasive species within wetlands. A code similar to the ICES Code of Practice on the Introductions and Transfers of Marine Organisms and the GEF/UNDP/IMO International Convention for the Control and

Management of Ships' Ballast Water and Sediments should be applied rigorously so that Ramsar sites are not placed at risk through unplanned introductions of aquatic species.

Reasonable practices should be adopted to reduce the risks from unregulated stocking programmes.

Issue 5: Sustainable management of wetland ecosystems for fisheries

- There is a general decline in the environmental health of most inland and coastal ecosystems caused by the impacts of human uses, declines found by the Millennium Ecosystem Assessment (MA) to be already more severe and to be occurring at faster rates in these ecosystems than in others. An area of major concern is the increasing withdrawal of water from inland systems that is affecting the functioning of rivers and the hydrological balance of lakes and coastal waters.

Environmental flow assessments in all rivers and associated wetlands that are threatened by flow-modifying activities such as the construction of dams, levee-ing of river channels, and water abstractions should include specific attention to fisheries resources and fisheries related aspects (see also Resolution VIII.1 and Resolution IX.1 Annex C).

Strategies for the mitigation of negative impacts on the environment from the activities of other users of the aquatic resource should be formulated. Where such impacting uses have ceased, the possibility of rehabilitation of damaged ecosystems should be explored (with reference to COP8 Resolution VIII.16).

The establishment of formal conservation and harvest reserves within selected sites of importance to fisheries should be considered.

Issue 6: Conflicts and multi-purpose use

- A number of human uses compete with fisheries for water and aquatic environmental resources, and these risk fisheries sustainability on Ramsar sites.

Local, national and international mechanisms should be established, as appropriate, whereby allocation of essential resources for the protection of aquatic resources and specifically fisheries resources are negotiated among all users of the resource. Similar mechanisms are needed for the resolution of conflicts between competing uses.

Issue 7: Increasing awareness of the importance of wetland management for fisheries

- There is an urgent need to ensure wider and better understanding of the importance of maintaining both coastal and inland wetlands for the benefit of fisheries maintenance.

Training programmes should be carried out under the Convention's programme on communication, education and public awareness (CEPA) to promote mutual understanding of the problems of the diverse sectors involved with wetland management and conservation including fisheries.

- Coastal and inland water fishers often operate at a small scale and need support.

> Self-motivated initiatives such as community outreach, wildlife monitoring, codes of conduct, certification and education, and awareness-raising should be fostered within fishing communities that are fishing within, adjacent to or in ways which impact upon Ramsar sites.

Issue 8: Enhancing international cooperation

- Maintenance of fisheries in shared wetlands and seas needs the countries concerned to develop enhanced collaboration.

> Countries sharing rivers, coastal lagoons, seas and lakes with significant fisheries should seek to establish common mechanisms for research, information sharing and management of their aquatic resources and specifically fisheries. If possible, such mechanisms should be incorporated into existing institutions, but where no such institutions exist measures should be taken to establish them.

Issue 9: Applying existing international agreements

- The application of a number of international agreements and existing guidance can help to ensure that fisheries in or affecting Ramsar sites and other wetlands are sustainable.

> The *Code of Conduct for Responsible Fisheries* (FAO, 1995) and its various Technical Guidelines should be taken as the guiding principles in regulating marine and freshwater fisheries and aquaculture. Technical guidelines cover: 1. Fishing operations (1996); 2. Precautionary approach to capture fisheries and species introductions (1996); 3. Integration of fisheries into coastal area management (1996); 4. Fisheries management (1997); 5. Aquaculture development (1997); 5. (supplement 1) Aquaculture development: good aquaculture feed manufacturing practice (2001); 6. Inland Fisheries (1997); 7. Indicators for sustainable development of marine capture fisheries. (1999); 8. Responsible fish utilization. (1998); 9. Implementation of the International Plan of Action to prevent, deter and eliminate illegal, unreported and unregulated fishing (2002), and 10. the ecosystem-approach to fisheries.
>
> Management strategies for the conservation of fisheries and aquatic biota especially in relation to Ramsar sites should take into account any endangered species listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), in accordance with the application of Criterion 2 of the Ramsar *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Resolution VII.11), as amended by Resolution IX.1 Annex B.

Issue 10: The status of fisheries in Ramsar sites

- Information on most fisheries pursued in or affecting Ramsar sites, as supplied in Ramsar Information Sheets, is sparse and generally qualitative. However, the information which does exist confirms that fisheries are practised in many Ramsar sites or in the larger wetland ecosystems with which Ramsar sites are associated. It is clear that Ramsar sites and their associated systems also provide employment to many commercial fishers and

subsistence fishers and collectors. Available evidence suggests that inland and small-scale coastal fisheries, including of the types that presently dominate in Ramsar sites, have declined due to habitat modification, overfishing and other human activities.[2]

National and regional programmes for the systematic collection of fisheries data at Ramsar sites and associated areas should be initiated or reinforced. As a minimum this should include data on weight and size of catch, numbers and effort of fishermen, and social and economic aspects of the fishery.

Issue 11: Coverage of the Ramsar site network for fish

- Since Criteria 7 and 8 for the designation of Ramsar sites for fish were adopted at the 6th meeting of the Conference of the Contracting Parties (1996), 264 Ramsar sites have been designated using these Criteria (as of 21 April 2005), although these occur in only 77 of the current 145 Contracting Parties (as of September 2005). It is clear that for fish the Ramsar site network is not yet the coherent and comprehensive national and international network envisaged by the 1999 *Strategic Framework*. Some systems lack representative sites to cover essential habitats for some important fish species.

Additional Ramsar sites should be designated, especially by those Contracting Parties that have not yet designated Ramsar sites under Criteria 7 and/or 8, to complete the global network of sites of international importance for their fish populations

[2] A key finding of the Millennium Ecosystem Assessment (MA) is that: "The use of two ecosystem services - capture fisheries and freshwater - is now well beyond levels that can be sustained even at current demands, much less future ones. At least one quarter of important commercial fish stocks are overharvested (high certainty). Humans increased the capture of marine fish up until the 1980s by harvesting an ever-growing fraction of the available resource. Marine fish landings are now declining as a result of the overexploitation of this resource. Inland water fisheries, which are particularly important in providing high-quality diets for poor people, have also declined due to habitat modification, overfishing, and water withdrawals." (Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-being: Synthesis*. Island Press, Washington, DC).