

## Linking Science to International Wetland Policy – the Ramsar Convention on Wetlands

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This Research Front comprises three papers that address the links between science and international wetland policy as shown through formal decisions taken by the Ramsar Convention on Wetlands. The papers cover three very different topics – water quality, ecosystem services and wetland monitoring.

The Convention is an inter-governmental treaty, signed in 1971, that provides a framework for national and international cooperation for the conservation and wise use of wetlands and their resources, and is built around three areas of activity: the wise use of all wetlands; designation and management of Wetlands of International Importance (Ramsar Sites); and international cooperation (Gardner and Davidson 2011). At the centre of the Convention's philosophy is the 'wise use of wetlands' as shown in the mission statement, namely 'the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world' ([www.ramsar.org](http://www.ramsar.org), accessed 18 April 2014). Wise use of wetlands is specifically defined as 'the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development'. As such, wise use comprises the conservation and sustainable use of wetlands and their resources, for the benefit of humankind (Finlayson *et al.* 2011).

The Convention has 168 Contracting Parties (member countries) who meet every three years to review administrative arrangements, review national reports on the implementation of the Convention, and consider guidance for the wise use of wetlands. Formal decisions made by the Contracting Parties are adopted through consensus. Observers from many organisations also attend these meetings and until 2012 were able to intervene in all discussions. Partway through the 2012 meeting, observers were prevented from intervening in order to recoup time spent on earlier issues. Implementation of the Convention between meetings is managed by a Standing Committee and a permanent Secretariat with technical advice being provided by a subsidiary expert body, the Scientific and Technical Review Panel (STRP). The meetings of Contracting Parties have made 289 formal decisions, with technical information for wetland management derived from these decisions being compiled in 21 handbooks for the wise use of wetlands (Secretariat of the Ramsar Convention 2010).

The program of each meeting (referred to as a Conference of Parties, CoP) includes several technical sessions that enable ongoing and emerging issues for wetland conservation and wise use, including the interpretation and development of key concepts, to be addressed, and guidance adopted for the wise use of wetlands. Ramsar meetings have gained the reputation of being highly effective events, generally allowing active participation of the non-governmental and academic communities.

The STRP provides technical input to the meetings through the provision of draft decisions on technical issues and the facilitation of technical discussions, in particular when it is necessary to form sub-groups to work through complex or contentious issues. The STRP comprises members appointed for their expertise in wetland conservation and wise use as well as experts chosen specifically to provide advice on priority topics. These members are chosen on the basis of their technical expertise and not to represent specific organisation or countries. They are supported by several observer organisations, including the Society of Wetland Scientists (SWS; <http://www.sws.org/>), which itself has formed a Ramsar section to support networking and the promotion of activities that address wetland topics ranging from science to policy. In 2012 and 2103, the SWS-Ramsar section organised sessions at the Society's annual conferences, with the respective themes of Linking Science to International Policy and on Understanding How Wetland Science Supports International Wetland Policy. These sessions had the dual purpose of introducing policy issues to wetland scientists and receiving feedback on the science supporting those policy issues. In this way it was anticipated that the nexus between wetland scientists and policy makers could be better understood and strengthened.

In a further step to support the aims of the SWS-Ramsar section, *Marine and Freshwater Research* has compiled a short collection of papers dealing with technical topics and how they contribute to or have been undertaken in response to wetland policy adopted by the Convention.

McInnes (2014) assesses the ecosystem services provided by wetlands in urban settings. This assessment was undertaken in response to formal decisions being agreed by UN-Habitat in 2011 and the Ramsar Convention in 2012. The latter in particular provided principles for the planning and management of urban and periurban wetlands and invited countries to

raise awareness of the importance of wetlands to urban populations.

Lucas *et al.* (2014) provide an analysis of the use of radar imagery for systematic global mangrove monitoring in support of national and international policies covering the long-term conservation of mangrove ecosystems and the services they provide to society. The proposed monitoring could also support the development of a global wetland observation system and provide information for a report on the state of the world's wetlands that is being considered by the Ramsar Convention.

Finally, Verhoeven (2014) reviews water quality issues in wetlands of international importance in support of efforts to provide guidance to managers about the inclusion of water quality in the description of the ecological character of internationally important wetlands. This review covers protection of the water chemistry characteristics as part of the Ecological Character of the wetland, consequences of nutrient loading and opportunities for nutrient retention and their limitations.

Although these papers consider the technical bases of the relevant decisions made by the meetings of the Contracting Parties, they do not investigate the intricacies of the policies. Rather, they expand on the technical issues that contribute to or are derived from the policy decisions. An analysis of the effectiveness of the technical responses is another story (Finlayson 2012), especially given the extent of wetland loss and degradation, as reported in the Millennium Ecosystem Assessment (2005).

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