

The challenges and implications of linking wetland science to policy in Europe – experience from the UK National Ecosystem Assessment

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Wetlands have been at the focus of societal conflicts throughout human history. This has resulted in their progressive loss and degradation as a result of competing land use demands, especially agriculture. In most countries the remaining wetland resource represents only a small proportion of the original or even recent historic landscape (Maltby 1986).

The last century has witnessed a major change in emphasis in wetland research which has contributed to a significant alteration in policy priorities. The change has been primarily from a conservation focus emphasising 'traditional' descriptive ecological characters and particular species or populations including key features such as rarity, uniqueness and particularly 'good examples' to a more functional approach with wider relevance to societal priorities (e.g. Maltby, 2009a). The switch in emphasis from what wetlands 'are' to what they (can) do has opened up numerous policy questions which go well beyond the conservation versus agricultural production competition. These include sectors from water resources and flood management to poverty alleviation, fisheries and climate change mitigation. Examples are presented to illustrate the range and degree of these policy links.

Some countries such as the United States, Canada and Uganda have specific wetland policies – but most do not. This is generally the case throughout the European Union despite the recent innovation of an integrated strategy for water management through the Water Framework Directive. In the UK significant parallel policy advances have followed international initiatives, including the Millennium Ecosystem Assessment (*sensu* Convention on Biological Diversity). These have culminated in the UK National Ecosystem Assessment (NEA). The NEA is the first analysis of the UK's natural environment in terms of the benefits it provides to society and continuing economic prosperity. It has involved over 500 scientists from 2009 to 2011 and has provided key input to the new government white paper (see web for details). The outputs of the NEA include drivers of ecosystem change, status and trends in broad habitat types and in ecosystem services and valuation of the contribution of ecosystem services to human well-being. There is consideration of 'plausible futures' of how ecosystems may change in the future and the implications of human well-being and response options.

The challenges of linking the available evidence base from wetland science and social science research to the NEA framework are examined. These include the fragmented and diverse ecological and landscape character of the wetland resource, robustness of the available data and evidence and questions of trade-offs.

The place of wetlands in the agricultural landscape presents some of the most challenging and contentious questions to which the NEA and associated policy

initiatives are now providing guidance on potential solutions. These are examined in the context of the new International Standards emerging of natural environment accounting and a suggested new paradigm for wetland science.

References

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