

Chapter 3: Implementation, Monitoring and Future Plans





THE PLAN AS FRAMEWORK FOR IMPLEMENTATION OF THE CBD

- 3.1 This National Biodiversity Plan sets out the general framework for implementing the CBD by Ireland. It includes proposed actions of both a strategic and more specific nature. The elaboration of Sectoral and Local Biodiversity Plans will be key means to achieving the integration of biodiversity concerns into all relevant sectors which is a core focus in line with the CBD.
- 3.2 Implementing the actions in the Plan will require the involvement and participation of a wide range of interests, especially from Government Departments and Agencies and Local Authorities. This represents a major challenge for the sectors and individuals involved particularly those which have heretofore had little or no experience in confronting biodiversity issues. While action by Government is essential, it is critical to ensure the biodiversity process which is put in place encourages and provides for the participation of the full spectrum of stakeholders.

IMPLEMENTING THE PLAN Co-ordination and Consultation

- 3.3 A key to delivering an effective and integrated National Biodiversity Plan is to have an adequately resourced and central co-ordinating body. To date, the Department of Arts, Heritage, Gaeltacht and the Islands has had the principal responsibility for co-ordinating the implementation of the CBD and for producing the National Biodiversity Plan. The resources of the Department will be increased to perform this co-ordinating role. The Biodiversity unit within the Department will be charged with co-ordinating the delivery of the National Biodiversity Plan and with its subsequent review and revision. It will also assist as proposed other Departments and agencies on integrating biodiversity requirements into all relevant legislation, policies, programmes and plans, and advise them on the preparation of their Sectoral Action Plans.

- 3.4 The preparation of the National Biodiversity Plan and the subsequent elaboration of Sectoral Action Plans by Departments and relevant agencies, as well as Local Biodiversity Plans, will be of considerable benefit in contributing to sectoral awareness and action for biodiversity in Ireland. Notwithstanding this, there is, and will continue to be, a need for close collaboration between all Departments in the development of Biodiversity Plans and of other relevant policies, programmes and measures.

The role of the Inter-Departmental Steering Group on Biodiversity, which was established in 1996, will be continued and expanded to ensure ongoing co-ordination and collaboration in respect of biodiversity, both in terms of national actions and input into the Convention.

- 3.5 The conservation of biodiversity is not a matter solely for Government, but is clearly an issue which should involve the people and economic sectors most affected as well as groups or bodies with a particular interest or role in this area such as academic institutions and conservation NGOs. It is essential to establish a widely based participatory process. In order to provide for consultation with, and input from, all stakeholders, a specific Biodiversity Forum representative of the different interests from the public and private sectors will be established.

North-South Co-operation

- 3.6 In terms of biodiversity, Ireland is one biogeographical unit. Many biodiversity conservation issues would benefit considerably from being addressed by a common or co-operative North-South approach. There has been co-operation and joint initiatives - both between the authorities and between non-governmental organisations and bodies - on various nature conservation projects for many years.
- 3.7 As indicated already Northern Ireland has published a report - Recommendations to Government for a Biodiversity Strategy. While this has been developed in the context of the UK Biodiversity Action Plan, it also considers the all-Ireland context.
- 3.8 This National Biodiversity Plan contains a number of specific actions that will be developed through a joint or co-ordinated North-South approach. These apart, there is much scope for further co-operation on biodiversity, particularly given the new cross-boarder bodies and processes. Increased co-operation would benefit biodiversity in both jurisdictions. It is envisaged there will be regular North-South consultation, with a view to promoting joint actions for biodiversity.

Resources

- 3.9 In some cases additional staff will be required or existing staff will have to be assigned to carry forward the action outlined in this Plan. It is estimated that ten new staff will be required in the Department of Arts, Heritage, Gaeltacht and the Islands and the Department of Agriculture, Food and Rural Development will require 4 additional staff.
- 3.10 Some of the action set out in this Plan will be achievable within existing financial resources. It is estimated an extra €38.60 million (£30.40 million) will be required across the State and Semi-State Sector to implement this Plan.

Monitoring

- 3.11 Progress in implementing the actions set out in the Plan will be monitored on a yearly basis by the proposed Biodiversity unit of the Department of Arts, Heritage, Gaeltacht and the Islands in collaboration with the proposed Inter-Departmental Steering Committee on Biodiversity and the consultative Biodiversity Forum.
- 3.12 A full interim review of progress in implementing the Plan will be submitted for consideration by Government in mid-2004.





REVIEW

- 3.13 The National Biodiversity Plan covers the five-year period 2002-2006. It is only the first step in a permanent process of committed action to promote conservation and sustainable use of biological diversity designed to meet the challenges of implementing the CBD, in particular Article 6 of the Convention in Ireland. It should not be viewed as a definitive statement of everything to be done in the future. Some areas of biodiversity are covered in less detail than others, often necessarily so due to limited knowledge or experience. It is essential to address the known more urgent issues now. It is even more important to begin the process of committed action for the conservation and sustainable use of biodiversity that this Plan initiates.
- 3.14 This Plan will have to be succeeded by new five yearly plans adapted as time goes on to address the challenges in conserving and sustaining biodiversity in the light of the learning experience in implementation and progress achieved. The revision process should take account of the successes and difficulties in implementing the actions set out in this Plan, the value of these measures in contributing to the conservation and sustainable use of biodiversity, and the changing status of biodiversity. It will also have to take account of newly emerging issues and developments at the national, EU and international levels, particularly under the Convention on Biological Diversity.



Appendix 1: List of Actions

INTEGRATING BIODIVERSITY INTO SECTORS

1. Relevant Government Departments and State agencies to prepare, with stakeholders, their own Biodiversity Action Plans in line with agreed guidelines to ensure and promote the conservation and sustainable use of biodiversity.
2. Improve generation and management of information on biodiversity within Government Departments and agencies.
3. Create Biodiversity Units or posts within relevant Government Departments and State agencies whose functions will include the preparation of biodiversity action plans within the framework of the National Biodiversity Plan.
4. Ensure all relevant plans and programmes and all new legislation, and key existing legislation, incorporates provisions requiring the conservation of biological diversity.
5. Ensure biodiversity continues to be fully addressed in the implementation of the operational programmes of the National Development Plan, and in the preparation of future National Plans (e.g. National Development Plan, National Sustainable Development Strategy) ensure the integration and enhancement of biodiversity will be a key consideration.
6. Consider the development of financial instruments/incentives to promote the conservation of biodiversity.
7. Establish a Biodiversity Unit within the Department of Arts, Heritage, Gaeltacht and the Islands to:
 - co-ordinate and support the delivery of the National Biodiversity Plan and the continuing response to the CBD;

- support the preparation of the sectoral biodiversity plans; and
- assist the work of the Biodiversity Forum.

8. Continue the role of the Inter-Departmental Biodiversity Steering Group and expand to oversee ongoing exchange of information, co-ordination and collaboration in respect of biodiversity in the context of the implementation of the National Biodiversity Plan and furtherance of the objectives of the CBD.
9. Establish a specific Biodiversity Forum, representative of all stakeholders, to provide a mechanism for consultation with, and input from, all interested parties specifically in relation to biodiversity.

Providing for Biodiversity at the Local Level

10. Each Local Authority to prepare a Local Biodiversity Plan in consultation with relevant stakeholders.
11. Each Local Authority to designate a contact officer for natural heritage conservation matters in its area.

LEGISLATION

12. To review continuously the adequacy of wildlife legislation in furthering the objectives of strategies for biodiversity.
13. Introduce legislation to provide a legal basis for National Parks (and other heritage properties) and, if necessary, introduce a National Parks and Heritage Properties Bill.
14. Review the need for legislation to provide additional conservation measures for a limited number of species which are of particularly serious conservation concern.

PROTECTED AREAS

15. Review previously proposed Natural Heritage Areas and designate as appropriate under the Wildlife (Amendment) Act, 2000.
16. Elaborate and publish a framework for the selection and designation of future Natural Heritage Areas, including sites of geological and geomorphological importance, taking into account the views of interested parties.
17. Complete identification and notification of SACs and SPAs, their submission to the European Commission and formal designation.
18. Provide advice and prepare and issue Guidelines on the Conservation of SACs, SPAs, NHAs and other protected areas to local authorities and other authorities.
19. Continue the programme of acquisition, agreement to, and designation of a representative series of Nature Reserves.
20. Prepare and implement site specific conservation plans and other plans (e.g. Commonage Framework Plans) with particular reference to Natura 2000 sites, NHAs, Nature Reserves and National Parks in consultation with affected landowners and the public.
21. Continue to provide compensation for farmers and other landowners for losses incurred in managing their lands in a manner which is compatible with the conservation requirements of designated sites.
22. Continue or put in place further measures, including appeals procedures, to provide for consultation with, and the participation of, those affected by existing and future protected areas.
23. Establish a comprehensive programme to monitor the condition of protected areas.
24. Review effectiveness of legislation, policies, practices and mechanisms for site safeguards.

SPECIES CONSERVATION

25. Prepare & periodically revise Irish Red Data Books (or similar assessments) for important species groups, in collaboration with Northern Ireland authorities.
26. Identify species of highest conservation concern in Ireland and prepare, and periodically revise, Species Action Plans for them.
27. Encourage the Gardaí and Customs officers to play an enhanced role in enforcing wildlife legislation, through, among other actions, the provision of specific training and guidance.
28. Prepare strategies, in consultation with Northern Ireland, to control introduced species and to prevent, or minimise, future (accidental or deliberate) introductions of alien species which might threaten biodiversity. Unless clearly safe, all deliberate introductions into Ireland of alien species will require a risk assessment.
29. All public bodies will endeavour to use native species, landraces and breeds and the public will be encouraged to do so.
30. Ireland will seek to ensure that relevant laws and instruments, including those concerned with trade, - both within the EU and internationally - do not contribute to the problem posed by alien species and Ireland and will support the development of specific international instruments to address alien species.

HABITAT AND ECOSYSTEM CONSERVATION

31. Initiate a programme to survey and assess the key natural habitat types which have been inadequately studied. An indicative list of the habitats to be covered by the programme is given in Appendix 3.

COUNTRYSIDE CONSERVATION

32. Review options on Regulation of Hedgerow Removal and Produce guidelines on Hedgerows and Biodiversity.
33. Ensure the new approach to hedgerow management for wildlife under the REPS scheme is implemented throughout the country, and that penalties for any removal of hedgerows are applied.
34. The Department of Arts, Heritage, Gaeltacht and the Islands will develop Guides to Best Practice with Local Authorities and other relevant bodies to safeguard biodiversity. These will, inter alia, normally require such bodies to use native species and seed stock in their tree planting programmes and to employ other environmentally beneficial management practices (e.g. cease using herbicides).

CONSERVATION AND SUSTAINABLE USE OF GENETIC DIVERSITY

35. Establish a national advisory committee with the participation of stakeholders in Ireland to:
 - Report on a co-ordinated programme on the conservation and utilisation of genetic resources for food, agriculture and forestry;
 - Characterise and inventory genetic resources for food, agriculture and forestry both in-situ and ex-situ;
 - Identify genetic resources in greatest danger of extinction and co-ordinate appropriate preservation initiatives;
 - Ensure what is already held in existing collections is maintained; and
 - Promote activities to assist the conservation of genetic resources for food, agriculture and forestry; including through on-farm conservation;

- Examine the need for, and where required propose strategies for the conservation and sustainable use of wild genetic diversity;

- Undertake genetic characterization and analysis of genetic variability for priority wild species;

- Conserve wild genetic resources ex-situ; and

- Support species conservation and recovery programmes for certain priority species.

36. Review the legislative requirements for the protection and maintenance of genetic diversity.

37. Undertake a review and prepare a comprehensive Strategy on Access to Genetic Resources, with appropriate consultation, nationally and internationally.

BIOSAFETY - GENETICALLY MODIFIED ORGANISMS (GMOs)

38. Ireland supports the Cartagena Protocol on Biosafety and will ratify it in a timely manner, taking account, inter alia, of progress in relation to necessary legislative measures at EU level.

39. Through its participation in the Cartagena Protocol, Ireland will continue to support capacity building for biosafety in developing countries.

KNOWLEDGE: IDENTIFICATION, MONITORING AND RESEARCH

40. Prepare a prioritised and co-ordinated programme of inventories, surveys and research, and implement the first phase of the programme. Priority will be given to endangered or threatened habitats and species about which little is known, or which are of special conservation importance.

41. Establish an Irish Biodiversity Database as part of the Department of Arts, Heritage, Gaeltacht and the Islands Heritage Archive and provide links to other relevant databases.
42. Put in place a national biological data management system to be co-ordinated by a National Biological Recording Centre.
43. Strengthen the capacity of relevant State institutions to undertake work to broaden and consolidate our knowledge of wildlife species and to maintain biological records. Capacity building for taxonomic work will be a key focus.
44. Establish a postgraduate studentship programme for research specially focused on the conservation and sustainable use of biological diversity and put in place a programme to encourage the scientific community to focus their research efforts to a greater extent on biodiversity.
49. Seek the adoption by the European Union and the subsequent extension to Irish waters of the provisions of the Agreement on the Conservation of Small Cetaceans in the North and Baltic Seas (ASCOBANS).
50. Ensure that the required measures are taken to enable the State to ratify Annex V to the 1992 OSPAR Convention on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Areas.
51. Ireland will seek to ensure, in co-operation with other relevant states, that the Greenland White-fronted Goose Conservation Plan is finalised, adopted and implemented.

Contributing to the Conservation and Sustainable Use of Biodiversity Overseas

45. Develop a targeted education and awareness strategy for the specific purpose of promoting the objectives of the Convention on Biological Diversity in Ireland.
46. Develop an Internet-based national Clearing House Mechanism.
52. Biodiversity will be made a specific objective of ODA, and all support to, and co-operation with, developing countries shall take account of biological diversity.
53. Ireland will provide specific funding for biodiversity projects in developing countries and countries with economies in transition and for work which contributes to the identification, assessment and monitoring of the state of biodiversity at the global scale (€6.35 million (£5 million)).
54. Ireland will support the development of international law in accordance with the CBD.

PUBLIC AWARENESS AND EDUCATION

45. Develop a targeted education and awareness strategy for the specific purpose of promoting the objectives of the Convention on Biological Diversity in Ireland.
46. Develop an Internet-based national Clearing House Mechanism.

EU, REGIONAL AND INTERNATIONAL Participating in and fulfilling international endeavours in Ireland

47. Ireland will implement fully the CBD and relevant biodiversity-related conventions, etc. to which Ireland is already a Party (e.g. CBD, CITES, Ramsar, Bonn, Berne, Bats Agreement, International Convention for the Regulation of Whaling, World Heritage Convention).
48. Ratify the African-Eurasian Migratory Waterbirds Agreement (AEWA).
55. Continue to work with Member States and the Commission to secure the conservation of biodiversity across the Community.
56. Support the implementation, and future development, of the EC Biodiversity Strategy and other community initiatives to ensure they are successful and widely supported in providing for the conservation and sustainable use of biodiversity.

TERRESTRIAL ECOSYSTEMS: AGRICULTURE

57. Support policies and measures to adapt support mechanisms for extensive farming systems at EU and other levels which will preserve and promote bio-diversity and be environmentally sensitive.
58. The Department of Agriculture, Food and Rural Development will seek, in any future revisions of REPS, to ensure that the conservation and sustainable use of biodiversity is a priority.
59. The Department of Agriculture, Food and Rural Development will engage in full and ongoing consultation with other parties including the Department of Arts, Heritage, Gaeltacht and the Islands, in relation to REPS and other biodiversity related issues and will take cognisance of environmental issues outside the immediate remit of the Department of Agriculture, Food and Rural Development when schemes are being devised or reviewed.
60. The Department of Agriculture, Food and Rural Development will set up a systematic evaluation process for REPS.
61. Control overgrazing by the completion and implementation of the strategy involving the preparation of Commonage Framework Plans and by the implementation of other appropriate measures.
62. Establish a special operational biodiversity unit within the Department of Agriculture, Food and Rural Development to oversee biodiversity conservation in REPS and other programmes.
63. Enhance training in ecology and biodiversity conservation in the agricultural sector by for example, implementing a biodiversity awareness strategy for farmers, the provision of appropriate training for REPS planners and ensuring that modules on biodiversity are taught as part of courses in agricultural colleges and other relevant training schemes.

64. Ensure adherence to the guide on Good Farming Practice.

TERRESTRIAL ECOSYSTEMS: FORESTS

Plantation Forests

65. Increase the target for total annual afforestation consisting of broadleaf species to achieve a target of 30% within five years.
66. Encourage the use of local provenances of native species and continue to support the nursery propagation of such material.
67. Introduce guidelines on forestry and biological diversity, and ensure their implementation as a mandatory condition of grant aid and revise other guidelines to enhance their role for biodiversity conservation.
68. Expand the existing forest and biodiversity research programme, including in association with COFORD, to obtain information on the biodiversity that plantation forests and native woodlands support.
69. Continue to adapt the Forest Inventory and Planning System (FIPS) to ensure the conservation and enhancement of forest biodiversity, including the completion of the Irish Forests Soils Project.
70. Develop an Indicative Forest Strategy approach, incorporating FIPS, GIS and the Forests Soils Project, to match the 'right tree in the right place.'
71. The Forestry Inspectorate within the Department of the Marine and Natural Resources will encourage and promote the conservation and enhancement of biodiversity.
72. Adapt the Amenity Woodland Scheme and the Urban Woodland Scheme to provide an enhanced role for the conservation of biological diversity.

73. Continue to implement and enforce EU controls relating to the marketing of forest reproductive material and forest plant health.
74. Review and upgrade the forest legislation as appropriate to inter alia provide for the conservation and sustainable use of biological diversity and Coillte will be provided with new biodiversity responsibilities.
75. Provide for the conservation and sustainable use of biodiversity in all stages of the forest cycle, whether planning, planting or management, through the Code of Best Forest Practice which has been developed in conjunction with the Irish National Forest Standard and Environmental guidelines.

Native forests

76. Introduce a Biodiversity Woodland Scheme. This Native Woodland Scheme will comprise two separate elements:
 - Native Woodland Establishment - Aimed at encouraging the development of new native woodlands on both isolated greenfield sites and sites contiguous to existing woodland cover. Target of 15,000 ha of new native woodland set, plus 1,000 ha of riparian woodland.
 - Native Woodland Conservation - Aimed at protecting and enhancing existing native woodlands through appropriate proactive silvicultural management. Target of 15,000 ha of existing native woodland (plus 1,000 ha of existing riparian woodlands) will be enhanced.
77. Encourage, in conjunction with the Peoples Millennium Forests Project, the planting and management of 600 ha of native Irish Broadleaf trees.
78. Develop a classification system and undertake an inventory of broadleaved woodlands in Ireland.

INLAND WATERS AND WETLANDS

79. Maintain and expand the catchment-based national strategy for the protection and improvement of water quality in rivers and lakes by the establishment by Local Authorities of comprehensive projects for river basin management in relation to all inland and coastal waters, and groundwaters. These projects will provide a major input, to be complemented by other appropriate measures by other public authorities, to the implementation of the EU Water Framework Directive and the achievement of at least “good status” in relation to all waters.
80. Ensure that all significant drainage, including both initial drainage and maintenance drainage, will require assessment of its implications for biodiversity, and particularly for wetlands.
81. Produce guidelines for drainage and wildlife.
82. Consider initiatives which could be employed to enhance the conservation of freshwater fish species and communities including the need to designate sites for the conservation of important fish communities.
83. Ensure waters will primarily be stocked with indigenous species, including reviewing the situation in regard to the translocation of fish between catchments and producing appropriate guidelines or other necessary regulations.
84. Draw up a strategy for the use of machine cutaway and cutover raised bogs as wetland or woodland habitats.

MARINE AND COASTAL

85. Prepare and adopt a National Integrated Coastal Zone Management Strategy making specific provision for the conservation of biodiversity.
86. The Marine Institute and the Central and Regional Fisheries Boards will advance the conservation, as well as the sustainable use, of biodiversity, through the establishment of biodiversity units, the provision of appropriate legislative responsibilities and other measures.
87. Develop a National Marine Biodiversity Resources Database as part of the National Biological Data Management System.
88. Enhance surveys and research on marine biodiversity through the implementation of a prioritised programme of surveys and mapping of marine benthic species and communities.
89. Introduce national measures to research and reduce adverse effects of marine fisheries on biodiversity, and within the EU, continue seeking to ensure the Common Fisheries Policy and marine fisheries provide for the conservation of fish species and marine biodiversity generally.
90. Draw up Guidelines and a Code of Best Practice on Aquaculture and Biodiversity.
91. Continue, and where necessary, enhance, in line with relevant EU and international instruments (e.g. OSPAR Convention), existing programmes and measures to control and monitor pollution of coastal and marine ecosystems.

Appendix 2: List of Submissions

An Taisce.	Institute of Technology, Sligo.
An Taisce, Meath Association.	Irish Fishermen's Organisation.
Animal and Plant Health Association (APHA).	Irish Genetic Resources Conservation Trust.
Ashling Woodland Development.	Irish Peatland Conservation Council.
Birdwatch Ireland.	Irish Raptor Study Group.
Bland, John	Irish Seal Sanctuary.
Botanic Gardens Conservation International.	Irish Wildlife Trust.
Carey, Tony J.	Jebb, Dr. Matthew
Coillte Teoranta.	Jeffrey, Dr. David
Connolly, Brendan	Limerick Environmental Watch.
Crann.	McCullagh, Tony
Department of Genetics, Trinity College Dublin.	McDonnell, Karen
Department of Zoology, Trinity College Dublin.	Murphy, William
Department of Oceanography, University College Galway.	National Botanic Gardens.
ECO-UNESCO.	NUI Maynooth.
Ecological Consultancy Services Limited (EcoServe).	Ó Drisceoil, Séamus
Environmental Protection Agency.	Parnell, Dr. John
Fennelly, Shay	Royal Botanic Garden, Edinburgh.
Fota Wildlife Park Ltd.	Royal Irish Academy.
Genetic Concern.	Speleological Union of Ireland.
Gibson, Peter	Spillane, Dr. Charlie
Grogan, Dermot	South Wexford Coast (SWC) Promotions.
Hayes, Karen	Tree Council of Ireland.
Humphrys, Tiernan	Zoological Society of Ireland.
Institute of Technology, Carlow.	<i>In addition relevant submissions made in the context of the National Heritage Plan were taken into account.</i>

Appendix 3: Indicative List of Natural Habitat Types Requiring Survey

*Montane wet heath

*Mountain blanket bog

Fens

Lowland grasslands

Lakes

Rivers

Marshes

*Woodlands

Coasts - Cliffs

Cutaway bogs

Sand/Gravel (including Esker areas)

Important sites for the protection of particular fish species/fish communities (e.g. pristine aquatic habitats, including those with very simple fish assemblages)

**National surveys will be commenced in 2002.*

Appendix 4: Bibliography

- Boelens, R.G.V., Maloney, D.M., Parsons, A.P. & Walsh, A.R., 1999. Ireland's Marine and Coastal Areas and Adjacent Seas: An Environmental Assessment. Prepared by the Marine Institute on behalf of the Department of the Environment and Local Government and the Department of the Marine and Natural Resources. Marine Institute, Dublin.
- Buckley, P. 1998. Legislation and protected areas for the conservation of biological diversity. In: Deevey, M.B. (comp.). Irish Heritage and environmental directory 1999. pp. 13-30. The Heritage Council & Archaeology Ireland, Bray.
- Buckley, P. (2000). The Convention on Biological Diversity and its implementation in Ireland. pp.1-14. In: Biodiversity : The Irish Dimension. Edited by Rushton, B.S. Royal Irish Academy, Dublin.
- Cabot, D. 1999. The New Naturalist. Ireland. HarperCollins Publishers, London.
- Curtis, T.G.F. and McGough, H.N. 1988. The Irish Red Data Book. I. Vascular plants. Stationery Office, Dublin.
- DAFF (1996). Growing for the Future: A Strategic Plan for the Development of the Forestry Sector in Ireland. Forest Service, Department of Agriculture, Food and Forestry. Government Publications Sales Office, Dublin.
- DAHGI (Department of Arts, Heritage, Gaeltacht and the Islands) 1999. National Report Ireland. First National Report on the Implementation of the Convention on Biological Diversity by Ireland, 1998. Department of Arts, Heritage, Gaeltacht and the Islands, Dublin.
- DAHGI (Department of Arts, Heritage, Gaeltacht and the Islands), 2001. Second National Biodiversity Report. Website: <http://www.biodiv.org>.
- DAF (Department of Agriculture and Food), 1999. Evaluation of the Rural Environmental Protection Scheme. Department of Agriculture and Food, Dublin.
- DELG, 1999. National Consultation on Genetically Modified Organisms and the Environment. Policy Statement. Department of Environment and Local Government, Dublin.
- DoE (Department of Environment), 1997. Sustainable Development A Strategy for Ireland. Stationery Office, Dublin.
- DoE, 1997. Managing Ireland Rivers & Lakes: a Catchment-Based Strategy Against Eutrophication. Department of Environment, Dublin.
- EC (1998). Communication of the European Commission to the Council and to the Parliament on a European Community Biodiversity Strategy. (COM (98) 42). Brussels.
- Faulkner, J.S. (2000). Biodiversity in Northern Ireland: Maintaining the Flow pp.15-23. In: Biodiversity : The Irish Dimension. Edited by Rushton, B.S. Royal Irish Academy, Dublin.
- Heritage Council, 1999. A report on the Impact of Agriculture Schemes and Payments on Aspects of Ireland's Heritage. Heritage Council, Kilkenny.
- Lehane, M. (ed.), 1999. Environment in Focus - A Discussion Document on Key National Environmental Indicators. EPA. Wexford.
- Lucey, J. & Doris, Y. (2001) Biodiversity in Ireland. A Review of Habitats and Species. Environmental Protection Agency, Wexford.
- Neff, J. 1996. Biodiversity in Ireland: a review of species diversity in the Irish flora. For the Heritage Policy Unit of the Department of Arts, Culture and the Gaeltacht, Dublin.
- NIBG (1999). Northern Ireland Biodiversity Strategy Proposals June 1999. Northern Ireland Biodiversity Group. The Stationery Office, London.
- Purcell, P. 1996. Biodiversity in Ireland: an inventory of biological diversity on a taxonomic basis. Fauna. Report submitted to the Heritage Policy Unit, Department of Arts, Culture and the Gaeltacht, Dublin.
- Secretariat of the Convention on Biological Diversity. 2000. Sustaining Life on Earth.
- Stapleton, L. (ed.) 1996. State of the Environment in Ireland. Environmental Protection Agency, Wexford.
- Stapleton, L., Lehane, M. & Toner, M. (eds.). (2000). Ireland's Environment. A Millenium Report. Environmental Protection Agency, Wexford.
- Whilde, A. 1993. Threatened mammals, wild birds, amphibians and fish in Ireland. Irish Red Data Book 2: Vertebrates. HMSO, Belfast.