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Features of Australia's wetland biodiversity: critical issues and strategic responses

Paper presented at Fenner Conference on the Environment, Biodiversity Conservation in Freshwaters, 5–7 July 2001, Canberra

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Acknowledgments - MEA, IPCC, Ramsar, ASL

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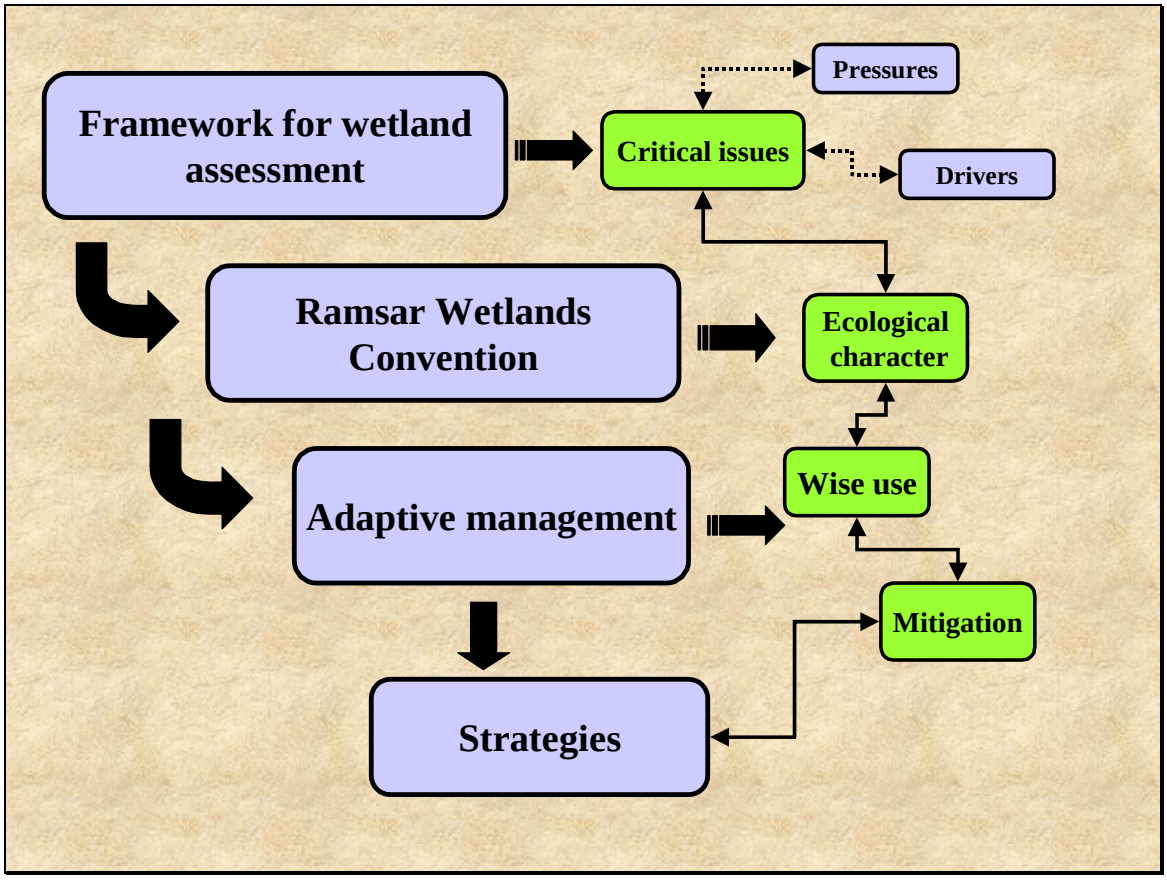
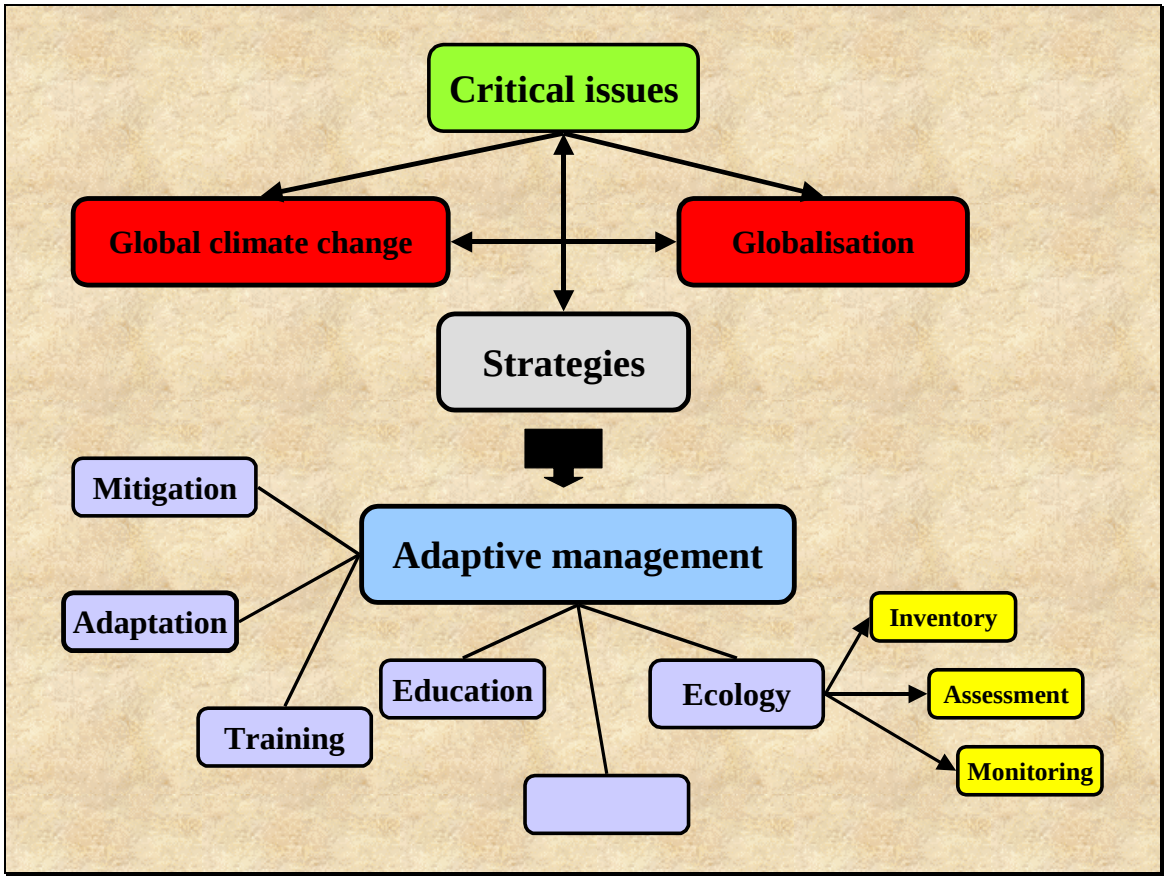
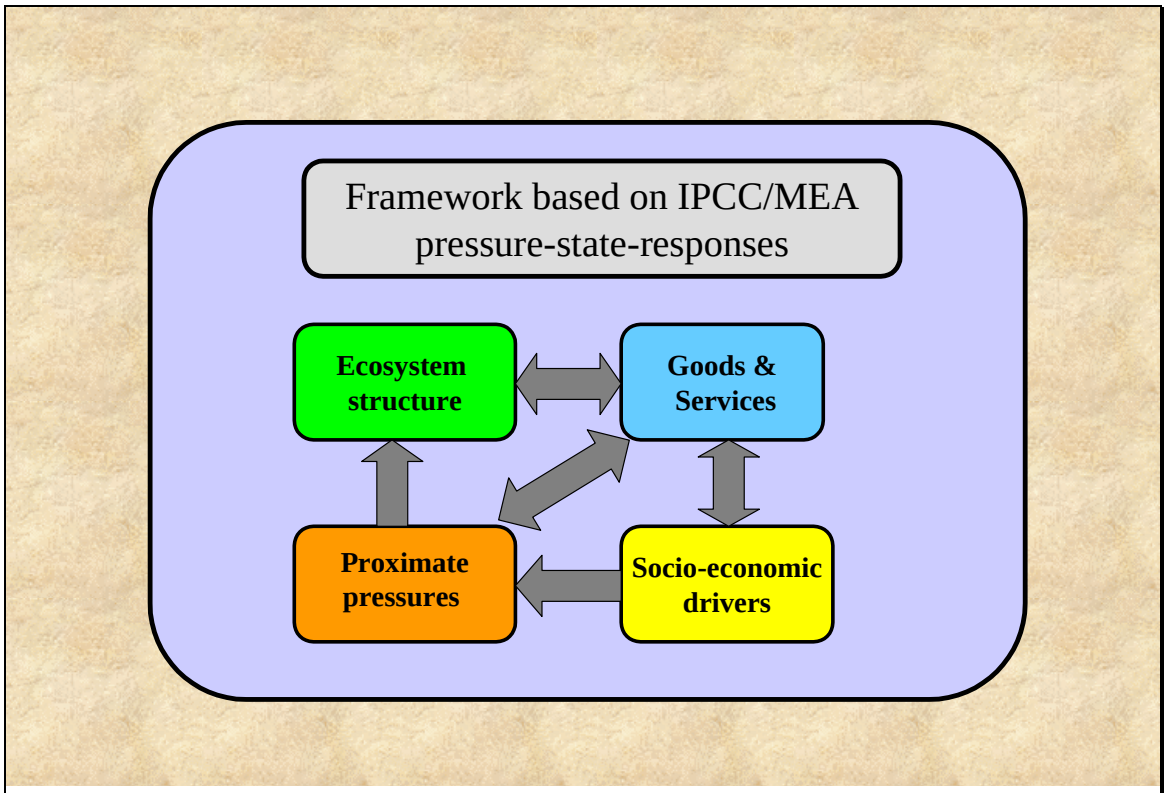
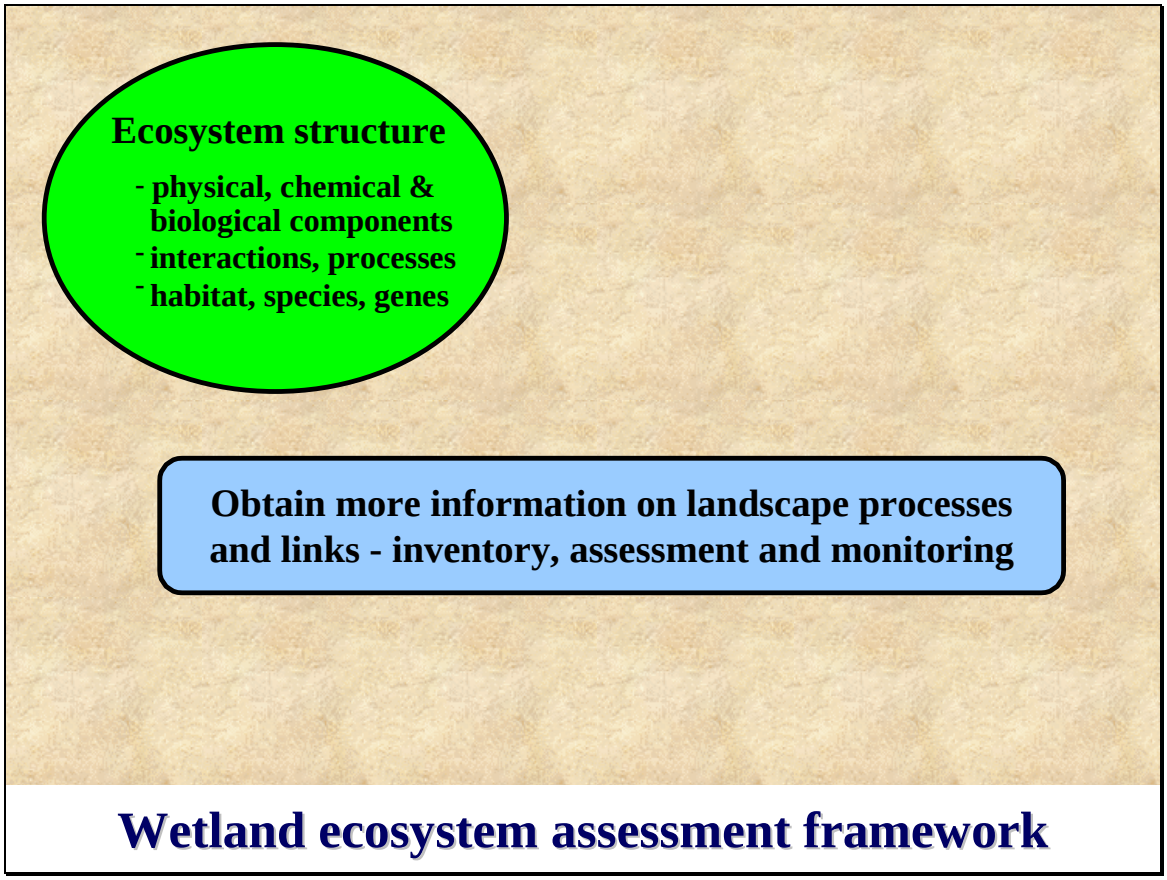


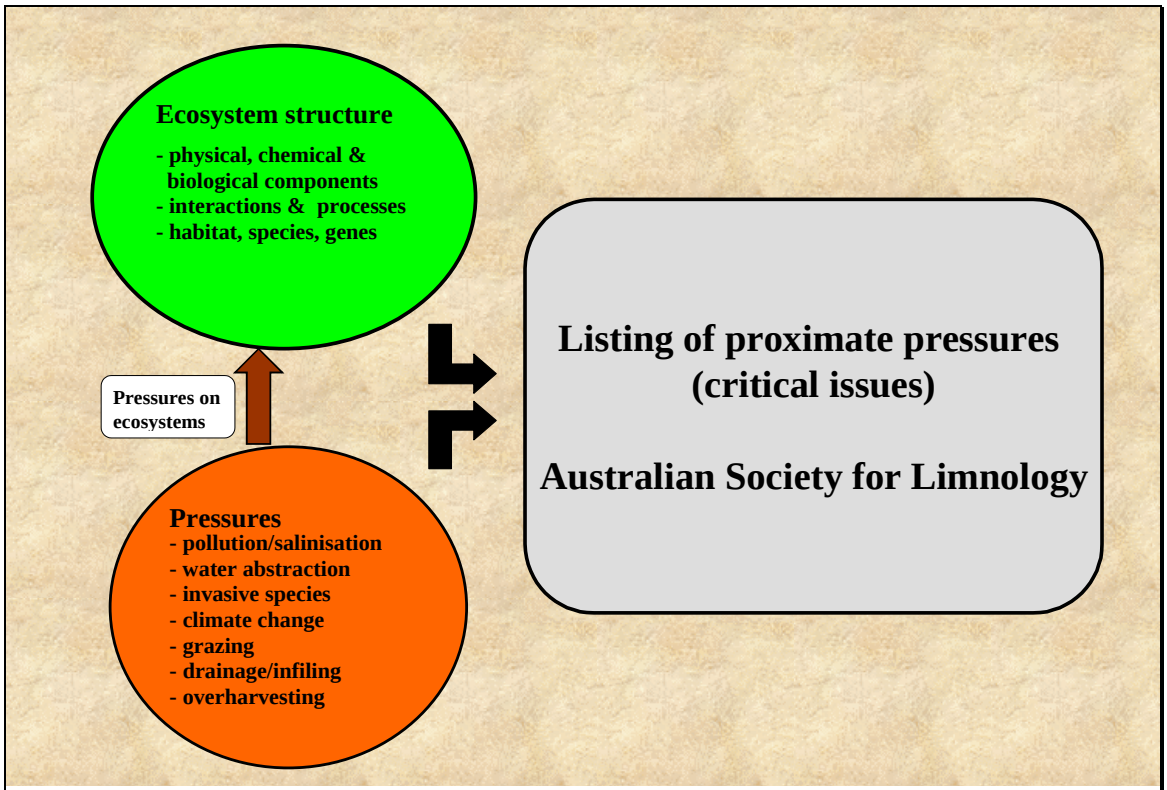




Framework for wetland ecosystem assessment



Wetland ecosystem assessment framework



Wetland ecosystem assessment framework

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Features of Australia's wetland biodiversity: critical issues

- provision of surface and groundwater for environmental benefits
- prevention of pollution and contamination of aquatic habitats
- prevention and reduction of salinisation
- prevention of further drainage and infilling of wetlands
- management of grazing in wetlands
- restoration and protection of riparian vegetation
- prevention and control of invasive species
- mitigation of climate change and sea level rise
- development of rigorous inventory, assessment and monitoring protocols

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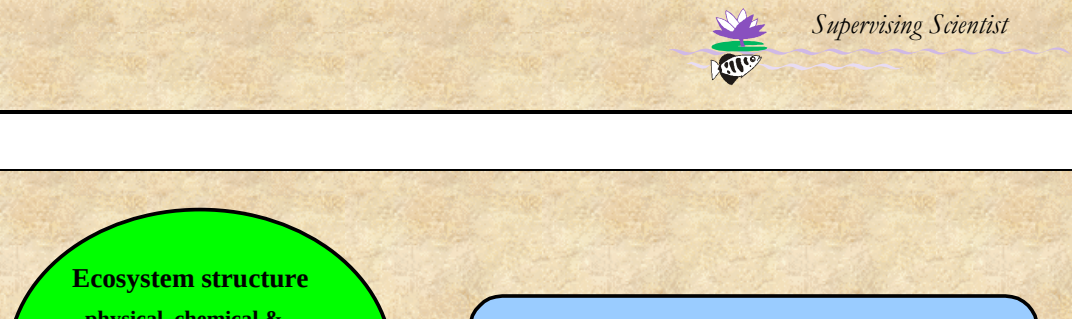
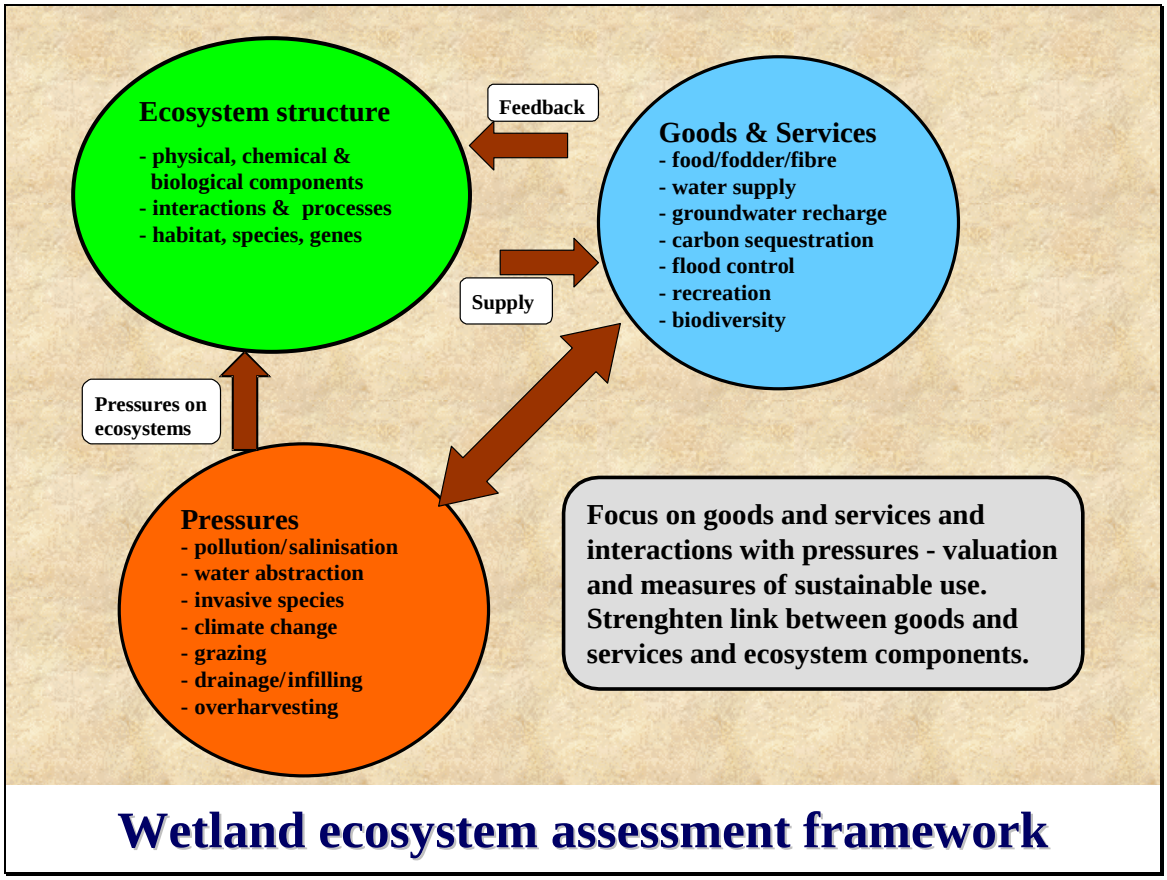
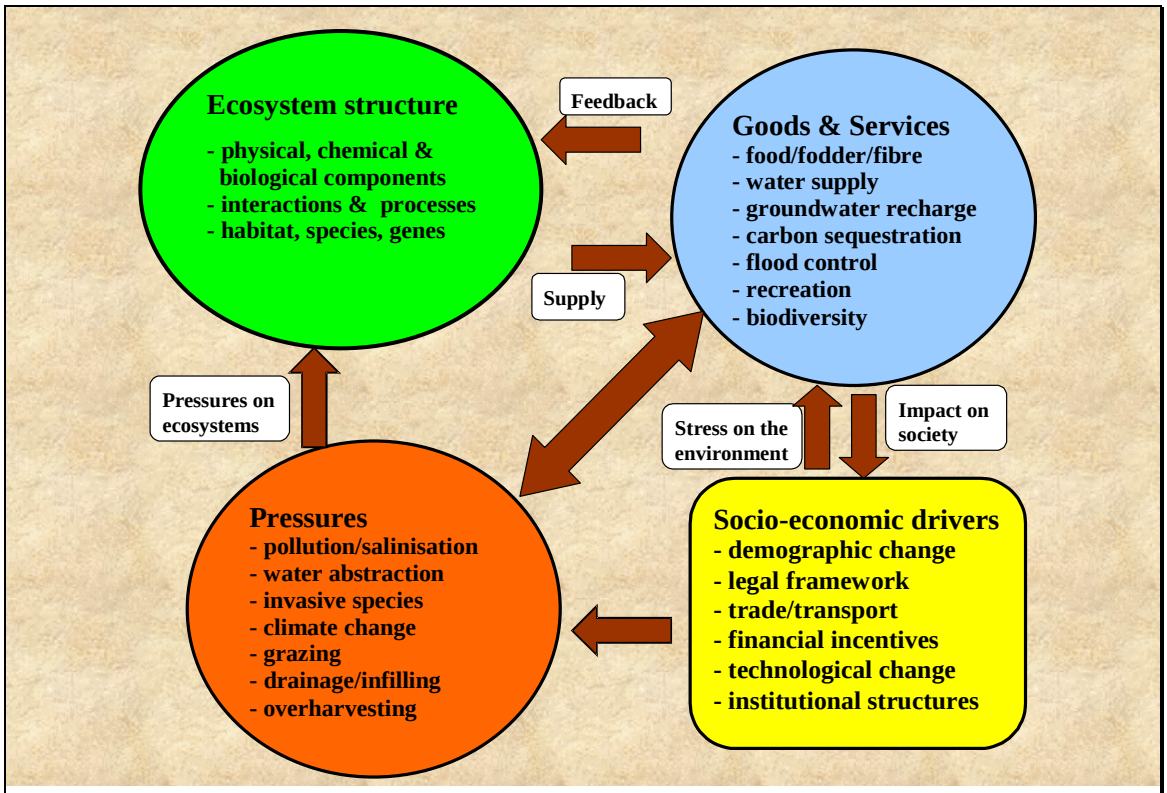


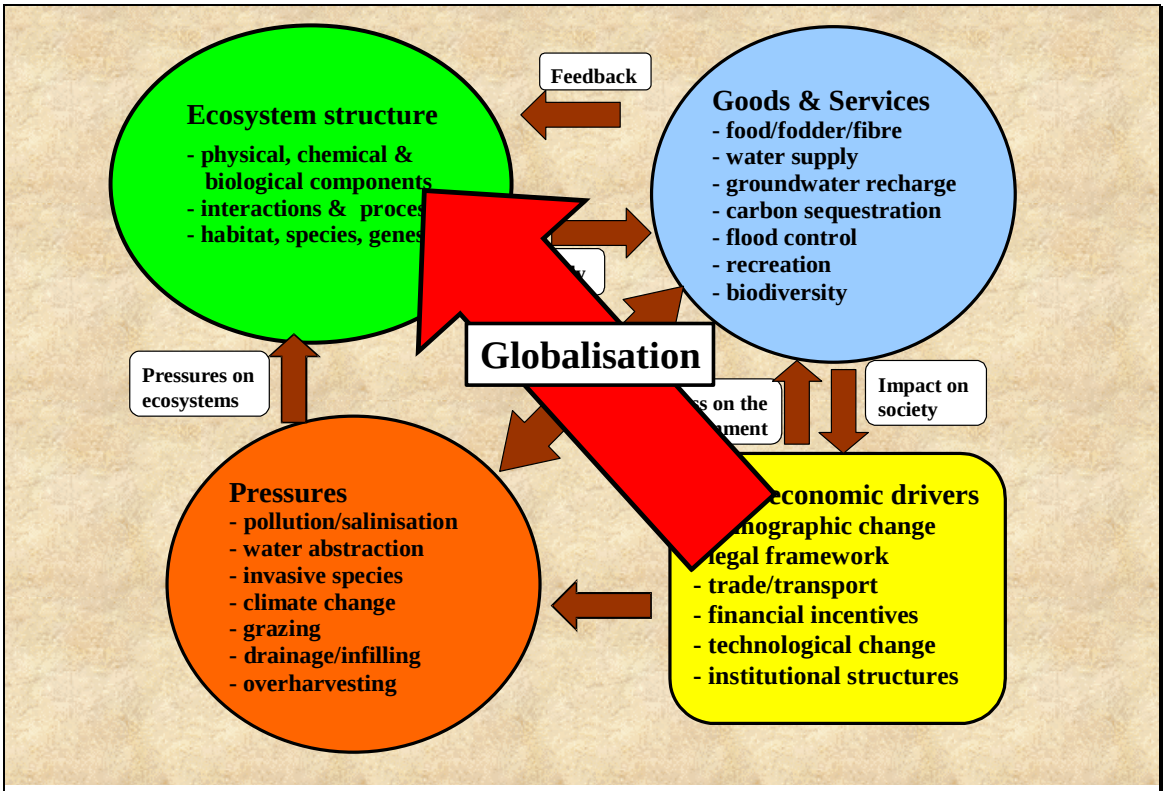
Wetland ecosystem assessment framework



Wetland ecosystem assessment framework



Wetland ecosystem assessment framework



Wetland ecosystem assessment framework

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Wetlands Convention Ramsar 1971

- List at least one wetland as internationally important - established criteria
- Maintain the ecological character of all wetlands - agreed definitions
- Make wise use of all wetlands - agreed guidelines and case studies

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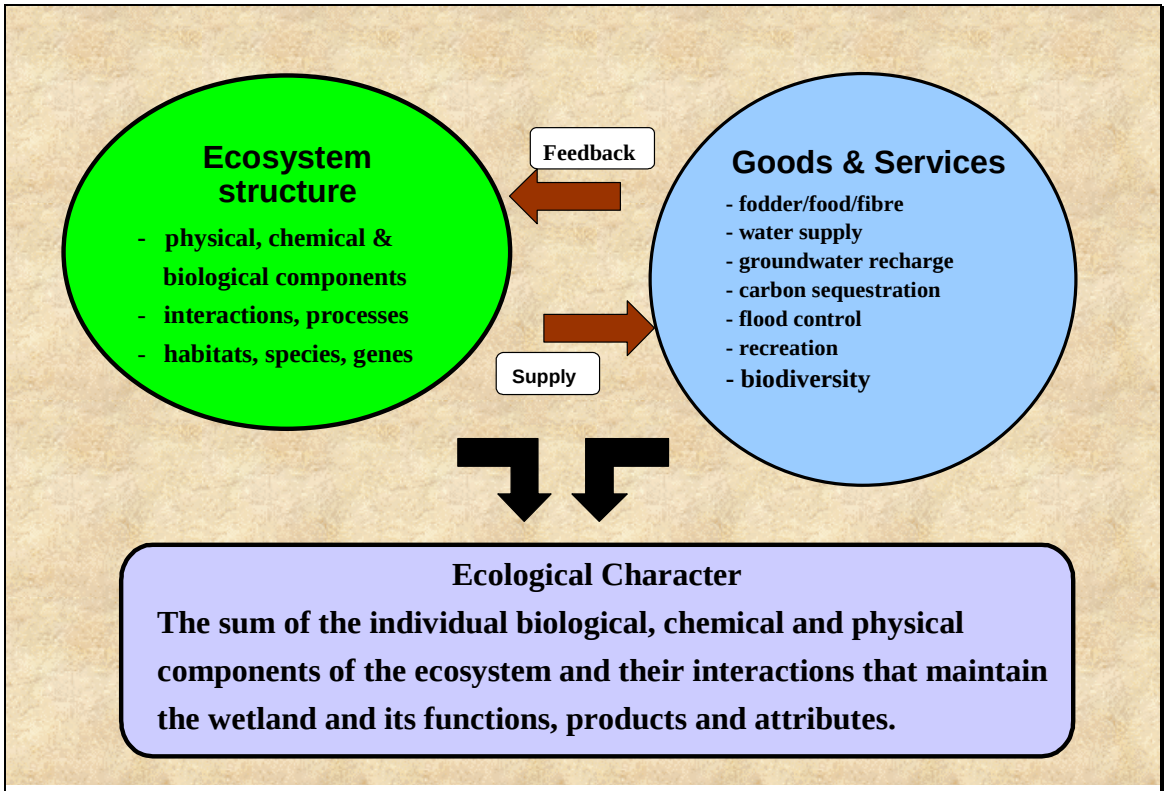
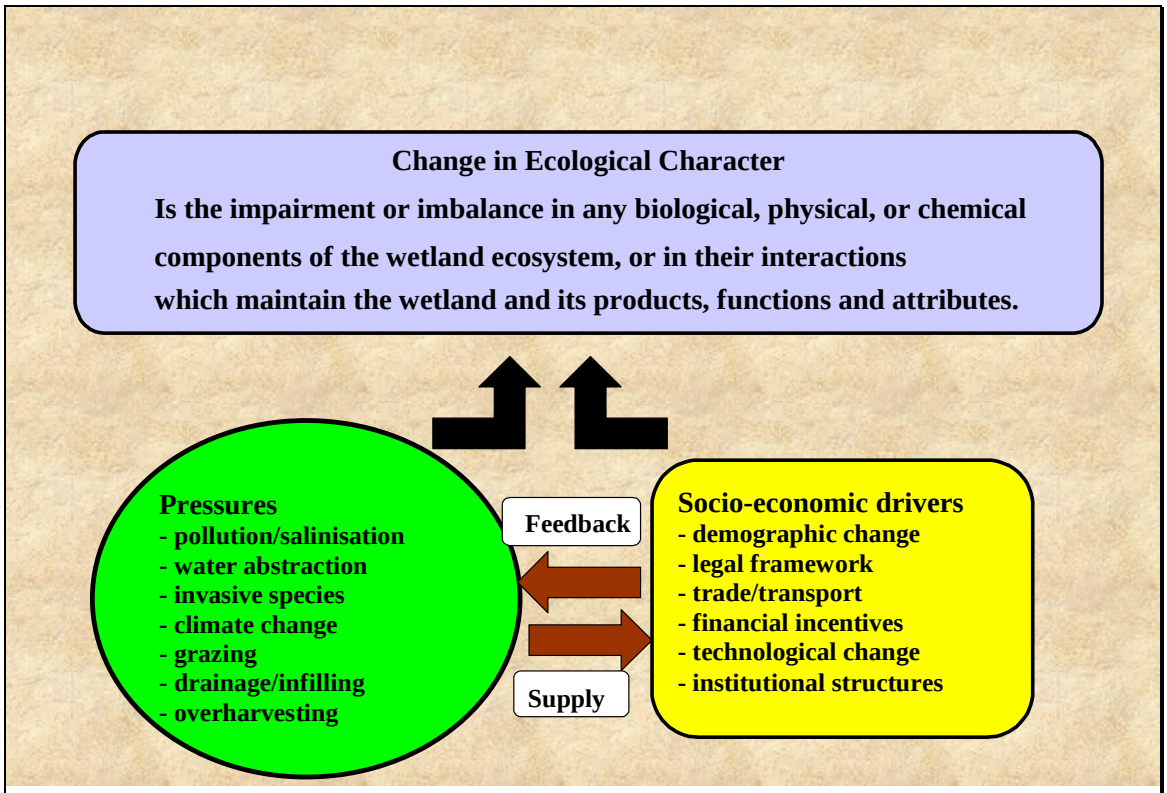
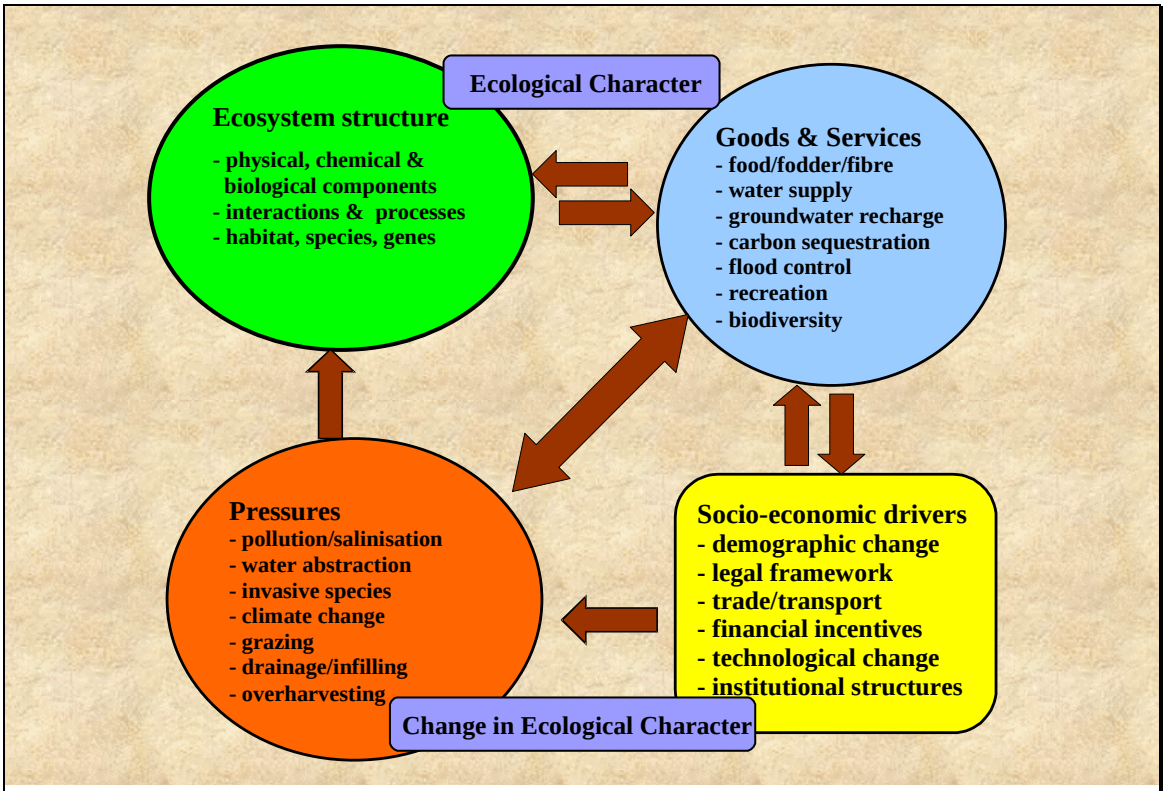


Ecological character of a wetland = *Ecosystem Structure* and *Goods & Services*



Change in ecological character = *Pressures* and *Socio-Economic Drivers*

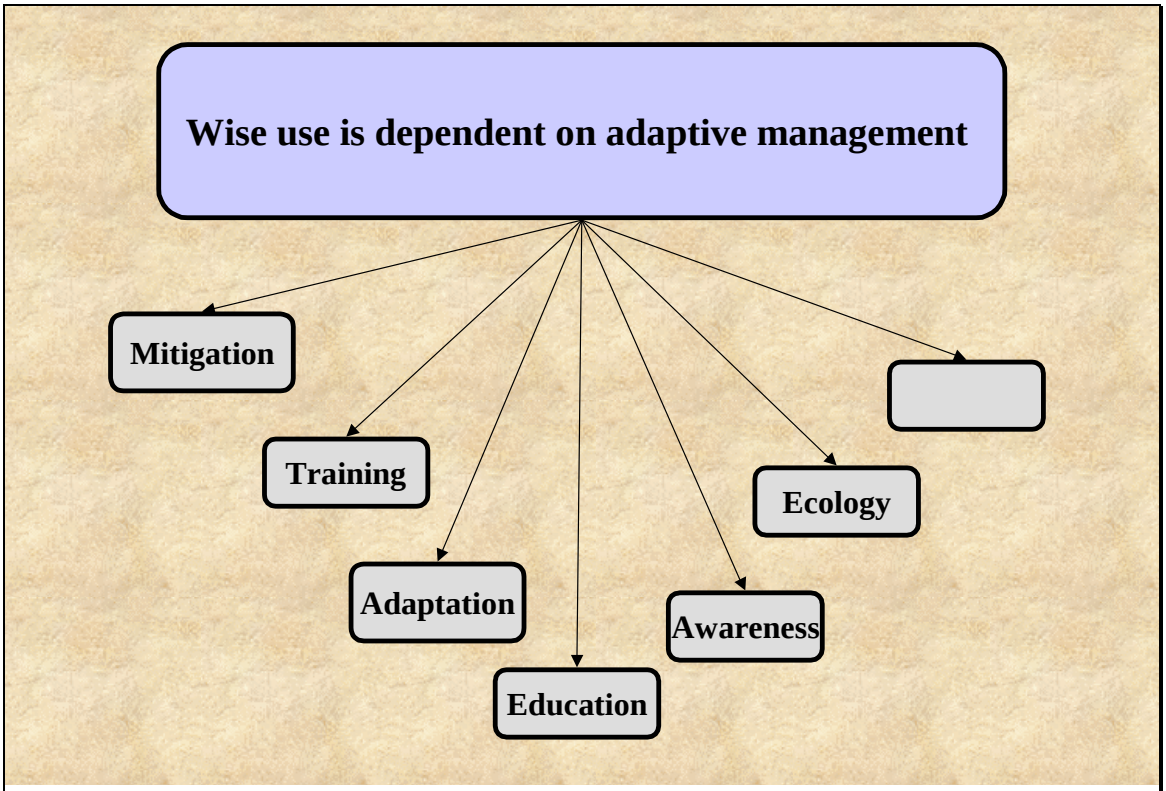


Framework for assessing the ecological character of a wetland

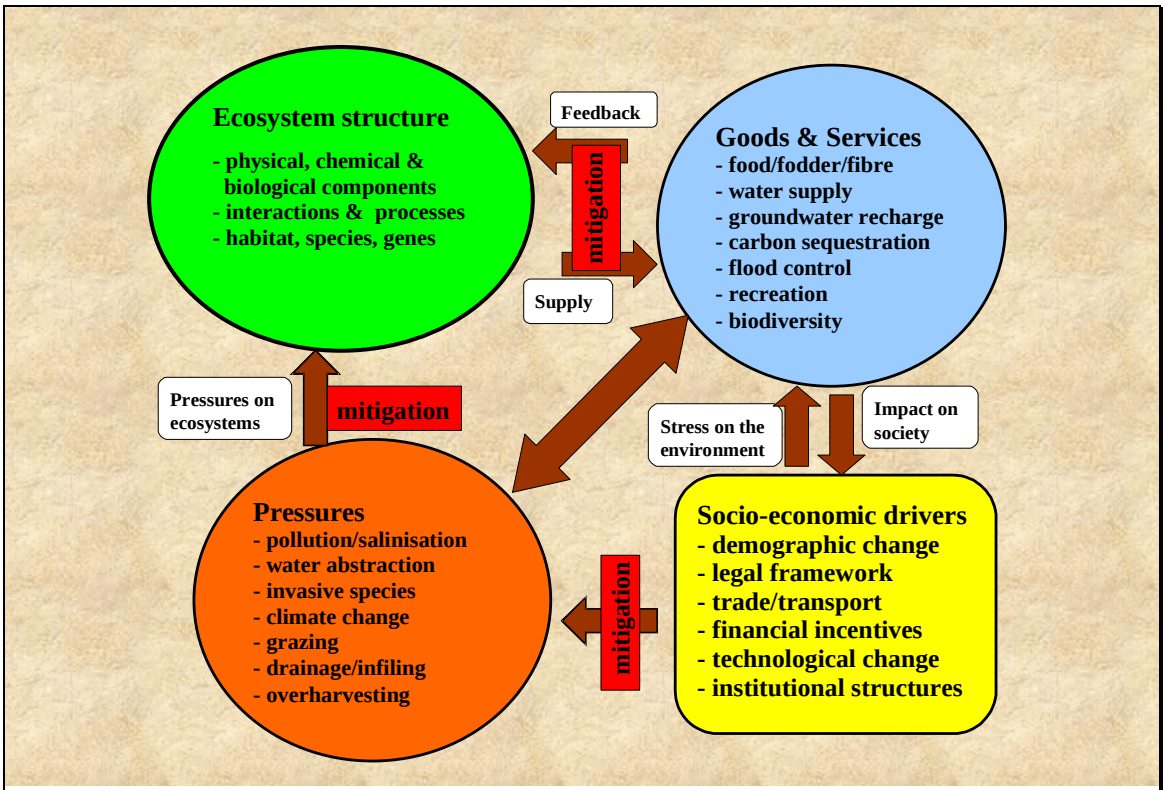
Wise use

Wise use of wetlands is their sustainable utilisation for the benefit of mankind in a way compatible with the maintenance of the ecological character of the ecosystem.

Management of wetlands = wise use of wetlands



Wise use of wetlands - adaptive management



Wetland ecosystem management framework

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Features of Australia's wetland biodiversity: strategic responses

- **Inventory, assessment and monitoring to ascertain ecological character of wetlands - landscape context**
- **Assessment and mitigation of multiple pressures - climate change**
- **Links between goods and services and pressures - valuation and measures of sustainability**
- **Links between proximate pressures and socio-economic forces and goods and services - globalisation**
- **Making wise use of wetlands - all components of adaptive management - whole ecosystem approach**

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