

Australian Government

Department of the Environment and Heritage
Australian Greenhouse Office

Update on Australia's Approach to Adaptation

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Adaptation: a challenge for all

- All countries are grappling with the same issue
 - Determining the nature of local impacts
 - How best to respond to these impacts
- There is a clear benefit in sharing research and experiences on climate change impacts and possible response measures

Climate Change in Australia



- Adaptation is a key issue for Australia
- Many natural and human systems and economic activities are vulnerable to the potential impacts of climate change

Potential climate changes in Australia include:

- Weather
- Environment
- Agriculture
- Water
- Infrastructure and settlements



A National Approach

- National Adaptation Framework by end 2006
- Collaboration between Commonwealth and State Governments
- Key elements of the framework:
 - Medium to longer term strategies to better prepare Australia, and support informed investment decisions

Melbourne Feb 2005





A National Approach

- Build knowledge of climate change and adaptation responses
 - May include pilot projects
- All senior government forums to consider climate change

National Climate Change Adaptation Programme

- Key objectives:
 - Advise Government
 - Build capacity
 - Engage stakeholders
 - Integrate





National Climate Change Adaptation Program

- Supports further analysis in areas of significant risk and opportunity
 - Implications for Australia's demographics and development patterns
 - Impacts for standard setting (building codes, dam safety and engineering tolerances)
- Improves understanding and knowledge by tackling difficult questions
 - What information do managers and coastal engineers need to plan coastal developments?

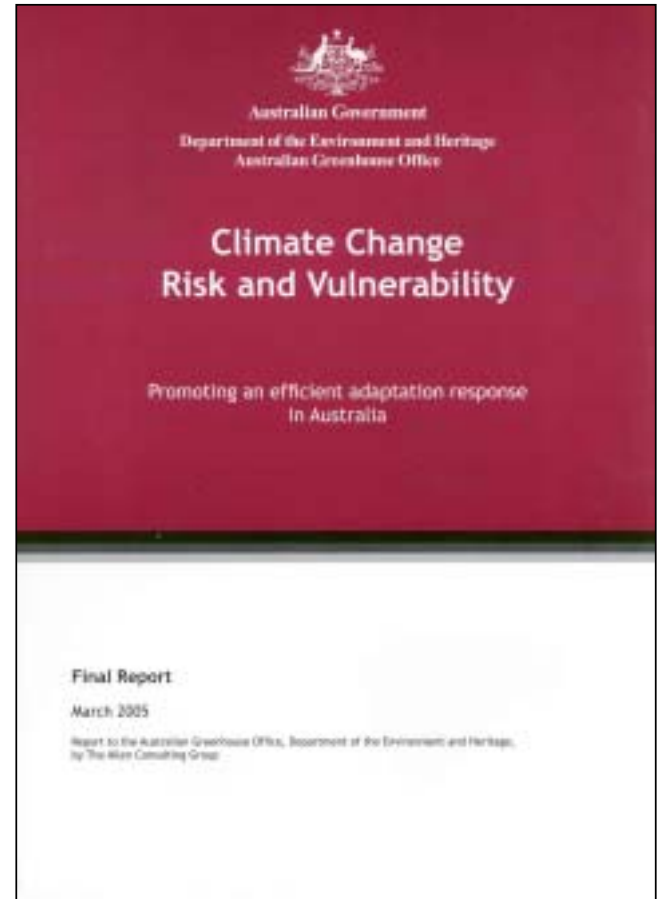


National Climate Change Adaptation Program

- Provides adaptation tools such as:
 - Risk management guidelines, guides for undertaking integrated assessments
 - Regional climate information over the internet
 - Specific guides for key sectors eg. precipitation charts for engineers

Risk and vulnerability

- First step in identifying priorities for the national adaptation program
- Provides comparative assessment across sectors and regions, exploring risks over the next 30 to 50 years
- Demonstrates importance of starting to consider climate change now in planning processes



Risk and vulnerability

- Priority vulnerable regions and sectors were identified:
 - Agriculture
 - Water supply
 - Settlements and emergency services
 - Energy supply and distribution
 - Biodiversity
- Sectors requiring some attention:
 - Tourism, health, fisheries and forestry
- Regions of high vulnerability:
 - Great Barrier Reef, SW-WA, SE Australia, coastal and alpine regions





Risk management guidance

- Risk management will assist businesses in:
 - Understanding priorities
 - Allocating resources to deal with them
- Initial assessment:
 - Risks you know you have to treat – treat now
 - Risks you know you can set aside – put on watch
 - Risks you can't yet classify – detailed assessment

Risk management guidance

- Based on four pilot studies
 - Local government
 - Gas and electricity supplier
 - Water corporation
 - State government department
- Simple practical guide based on the Australian standard
- The Government has also published '*Climate Change Scenarios for Initial Assessment of Risk in Accordance with Risk Management Guidance*'





Examples of potential adaptation responses for priority areas

- Agriculture
 - Drought resistant crops and animal breeds
 - Diversification of crops
- Water
 - Water use efficiency, dams, water management
- Settlement and infrastructure
 - Vulnerability and risk management approach to infrastructure planning

Sectoral response - Agriculture

Vulnerability Criterion	Findings
Exposure	Decreased water availability Increased temperatures Changes to spread of pests, & diseases Reliability of feed crops
Sensitivity	Low to high Depends on region and crop type
Adaptive Capacity	Generally high
Adverse Implications	Decreased reliability of food production Economic losses
Potential Benefit	Changes to soils and water management

Sub-sectoral response – Intensive livestock



- Tailored information to meet industry needs
 - Regional projections
 - Exposure of the industry to climate change
 - Adaptation options
 - Considering the geographic location of new intensive industries based on projections
 - Selecting animal breeds more tolerant to heat stress
 - Breeding plant species for increased drought tolerance



Australian activities to support adaptation in the region

- Funding the *Adaptation and Vulnerability Initiative for Pacific Island Countries*
- Funding a range of climate monitoring and modelling projects, including the *Sea Level and Climate Modelling Project*
- Actively involved in developing the Five Year Program of Work on Adaptation under the UNFCCC



Key lessons

- Plan early and set clear objectives
- Use the best available existing information to address vulnerable communities, sectors and regions
- Include climate change in risk assessment of all projects, and key policies and programs
- Encourage and facilitate the increasing engagement of industries and communities in adaptation responses
- Adaptation options that are developed by governments, industries and communities must meet the needs of the relevant sector



Next steps

- Utilising and sharing good practices and best current knowledge (scientific, technological and socio-economic)
- Building our knowledge and capacity to adapt
- Fostering a risk management approach
- Making adaptation an element of mainstream planning
- Helping people to understand climate change impacts on their region, industry and lifestyle and to take ownership of the need to act
- Providing tailored information on possible impacts and responses
- Trialling and refining potential responses

Thank You

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