

Water scarcity management in Australia: Key features and lessons learned

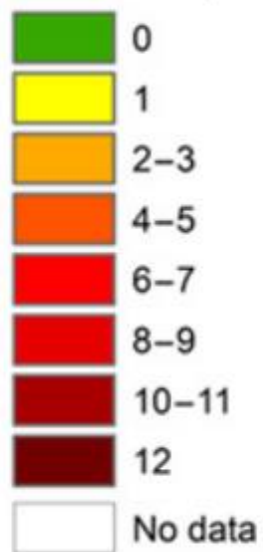
Lucía Gamarra, Senior Partnerships and Impact Officer
Friday 19 October



Australia – water partners for development

Water scarcity

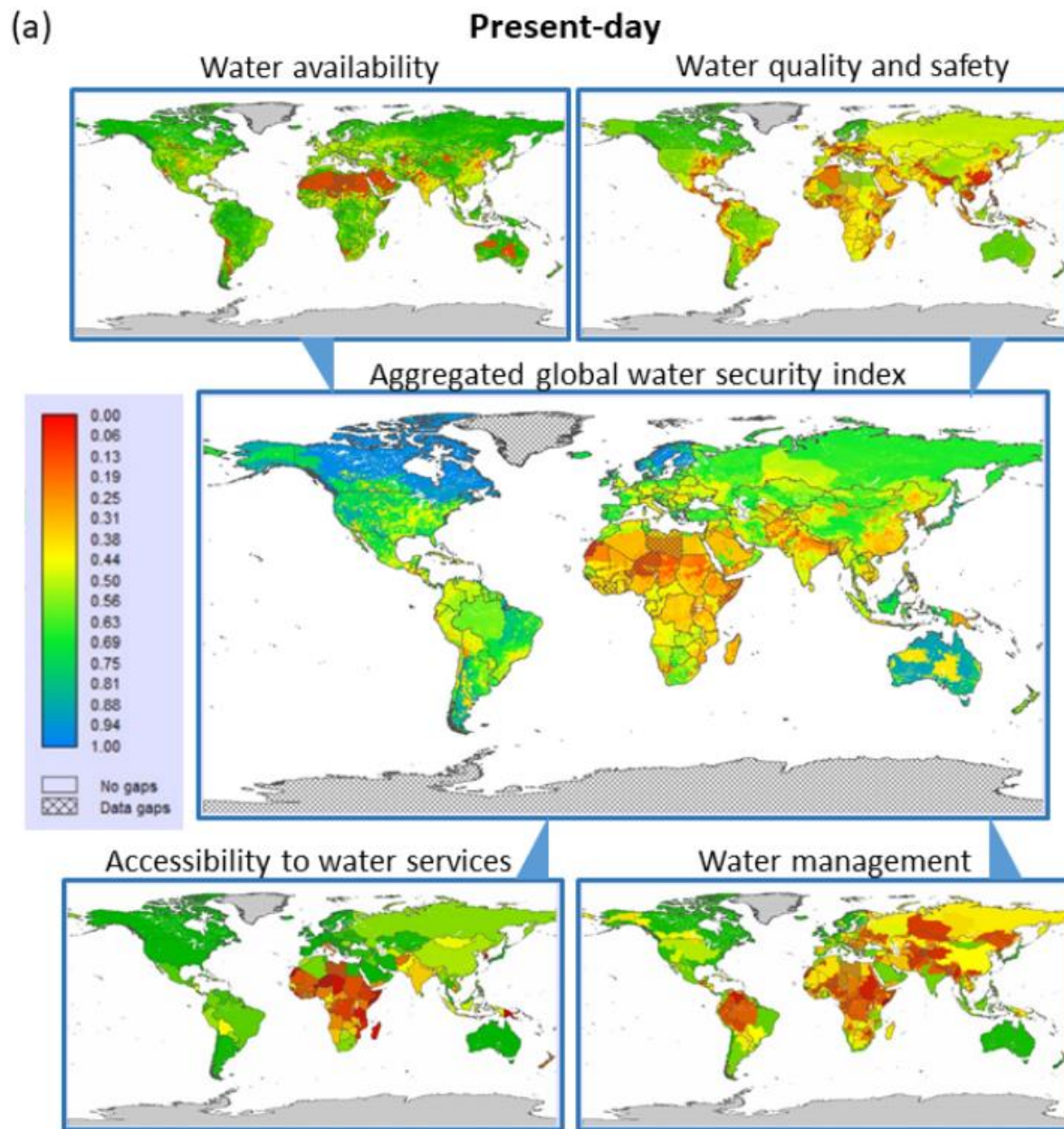
Number of months in which
water scarcity is >100%



The number of months per year with severe water scarcity (ratio of water demand to availability > 20 1.0).

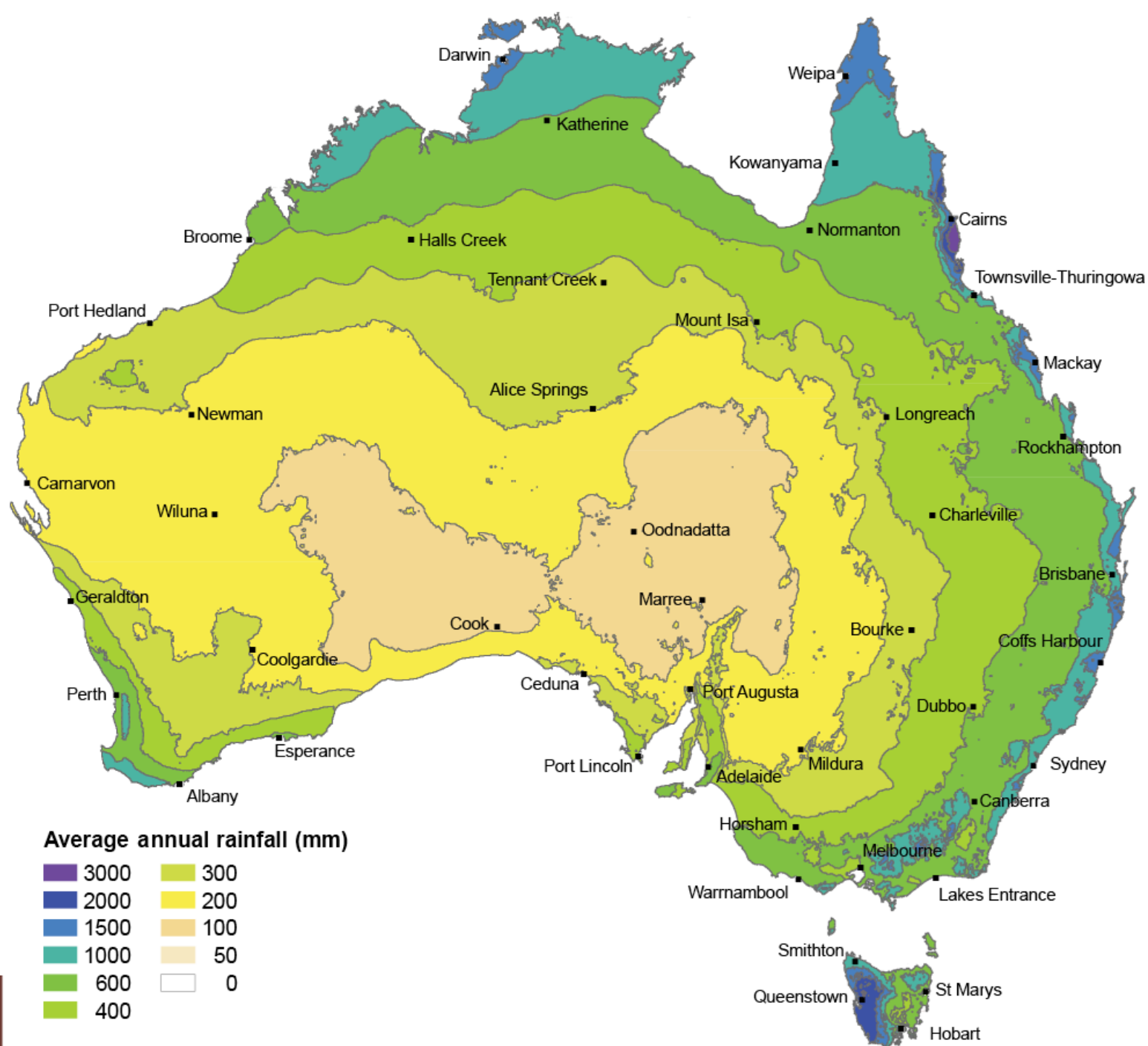
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Water security

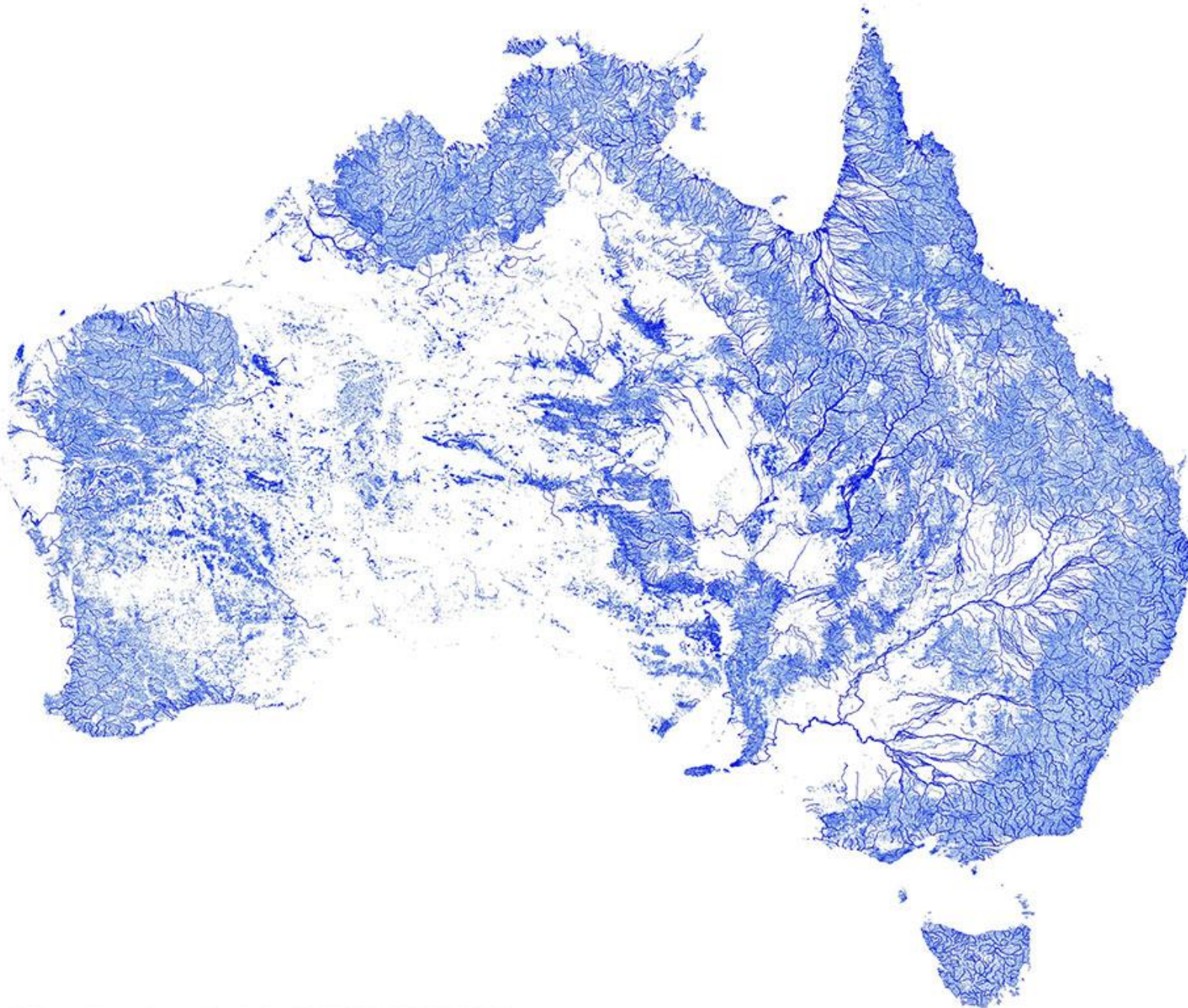


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2016, cited by Chapter 4 IPCC
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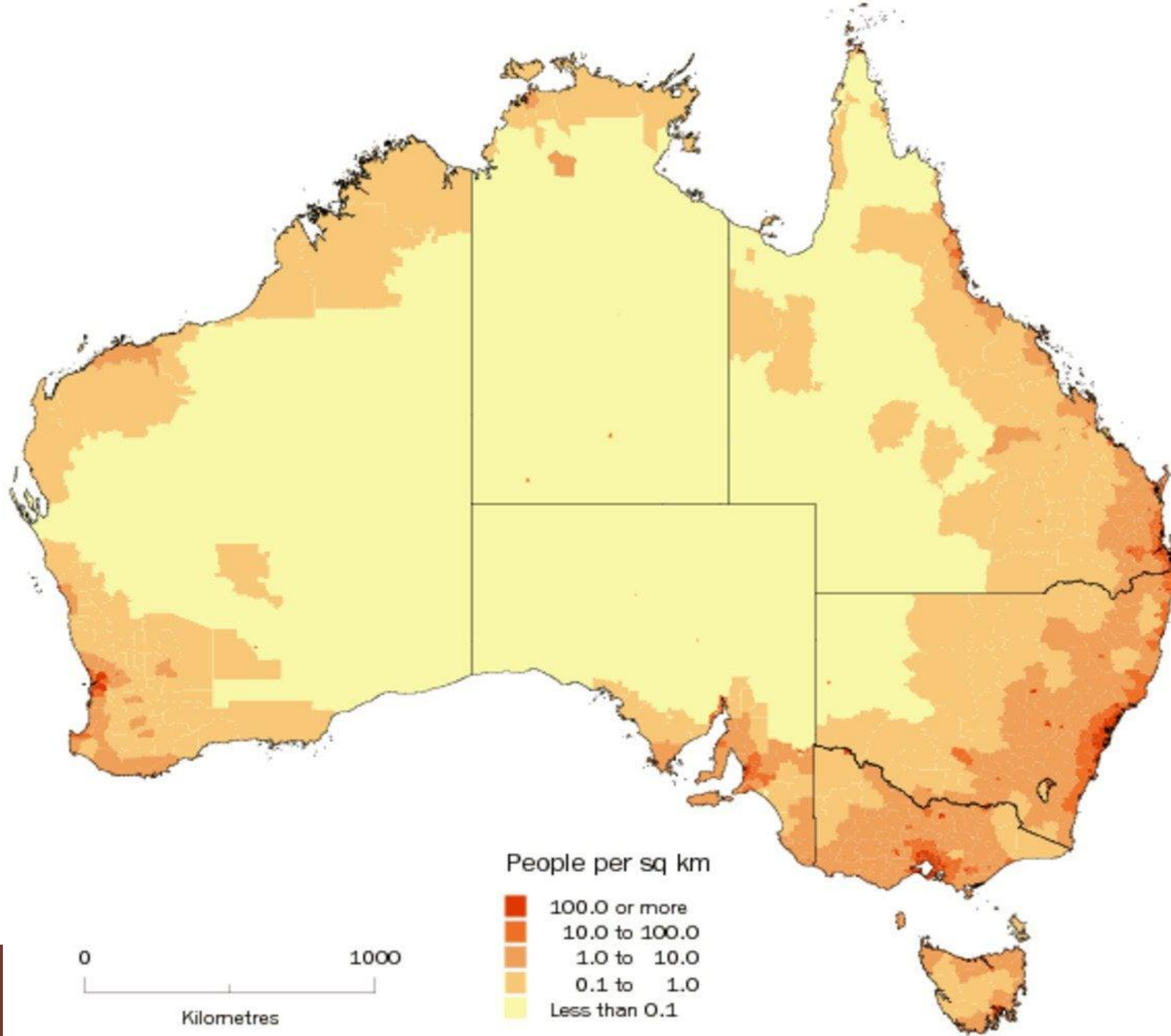
Average annual rainfall



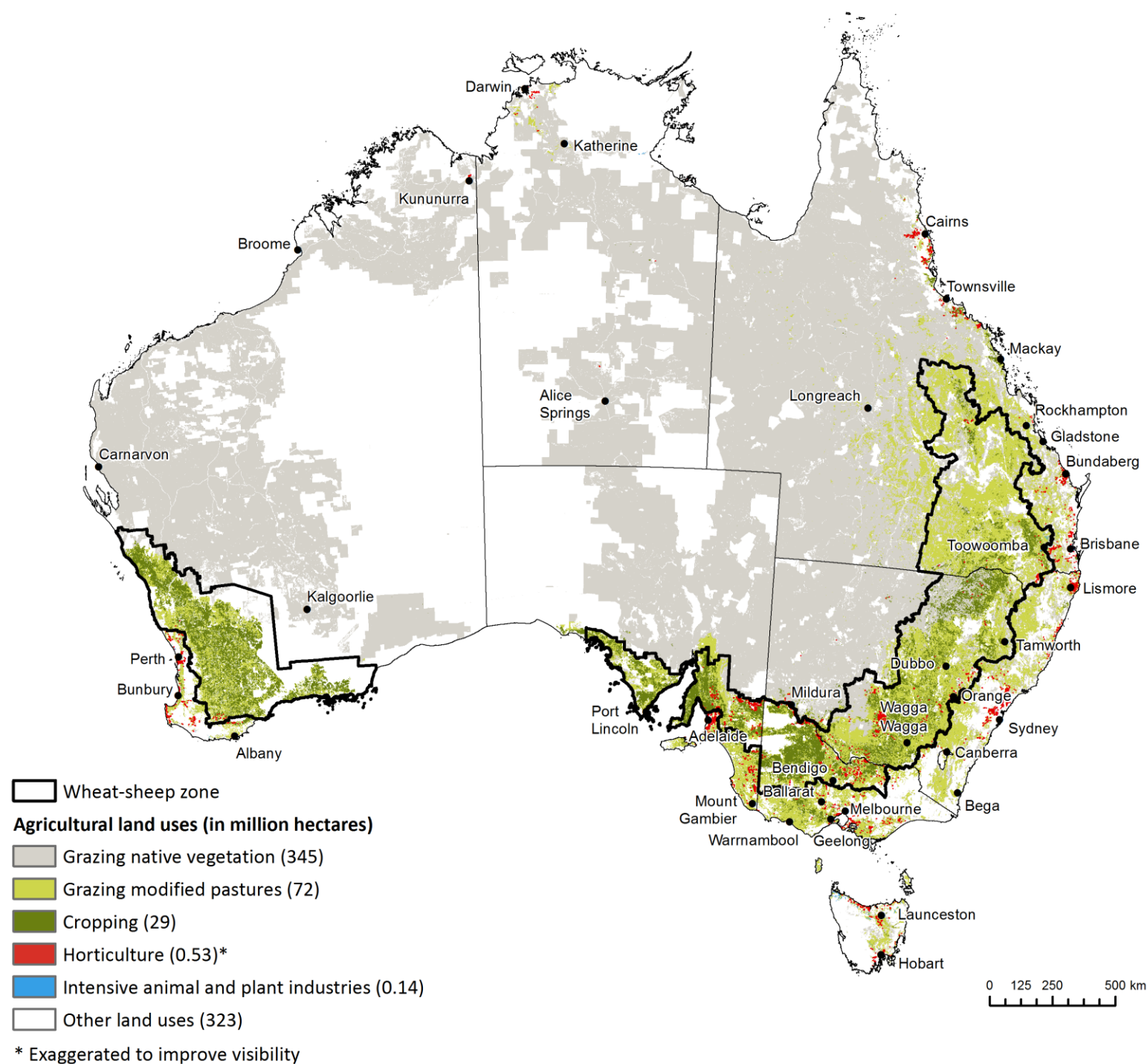
Stream networks



Population density



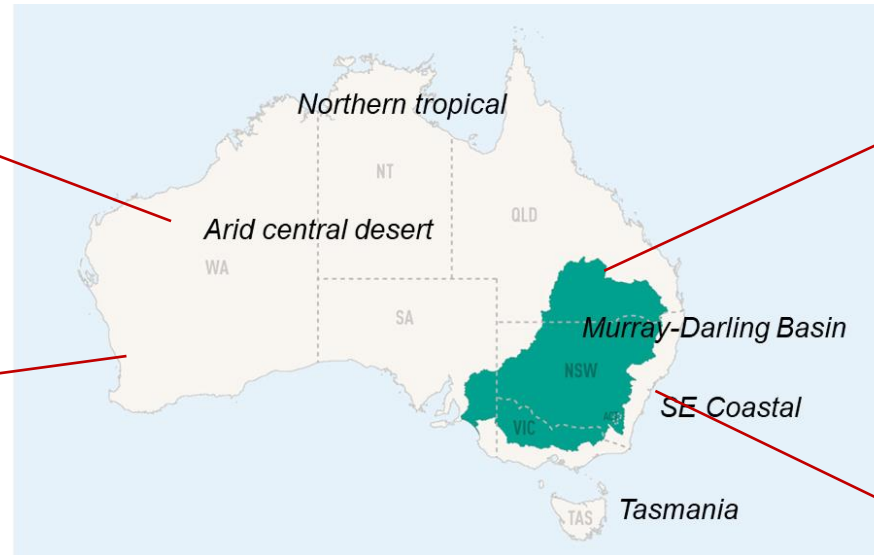
Agriculture



Drought and water shortage in Australia

Arid central desert: Extremely limited water resources with very few people, industry and almost no irrigated agriculture

Murray Darling Basin - an agricultural issue: Has many large water storages, few people and fully developed irrigated agriculture that has caused over-allocation of the Basin water resources



Perth – an urban issue:
Current challenges on supplying domestic water – 2 x desalination plants built and treated effluent used to recharge groundwater

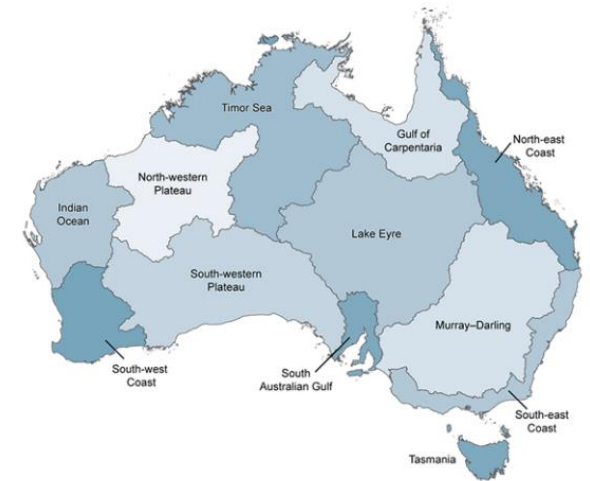
Coastal cities (Melbourne, Sydney, Brisbane) - an urban issue: 50% of population live in these cities - reliable local catchment water resources insufficient – desalination plants built

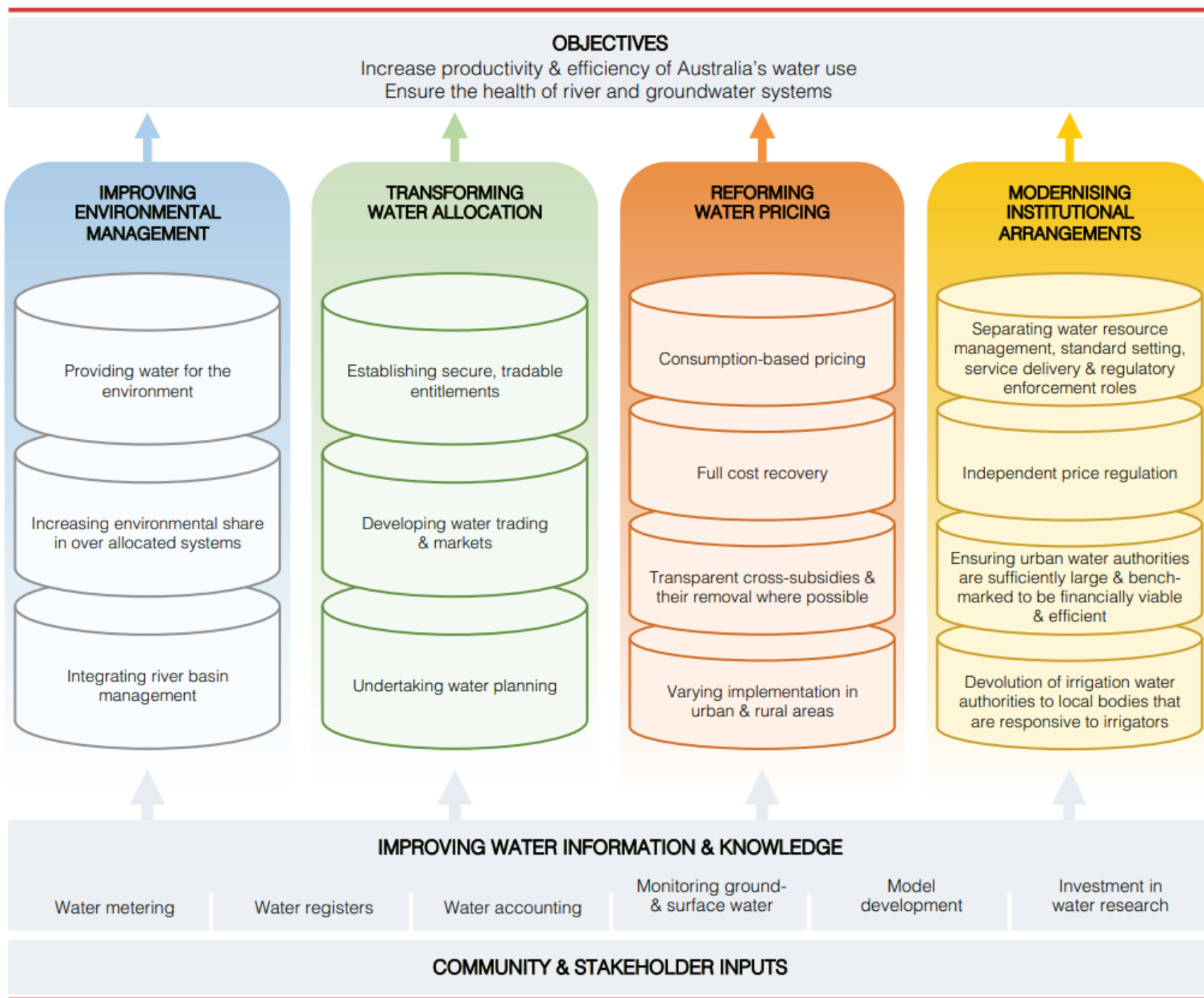
Key features of Australia's Water Management

Policy and legislation (National Water Initiative & New Federal Water Act, 2007)

Planning framework (Regional Water Resource Management Plans & Basin Plan, 2012)

Management framework (knowledge, entitlements, metering, compliance)





Australian Water Reform

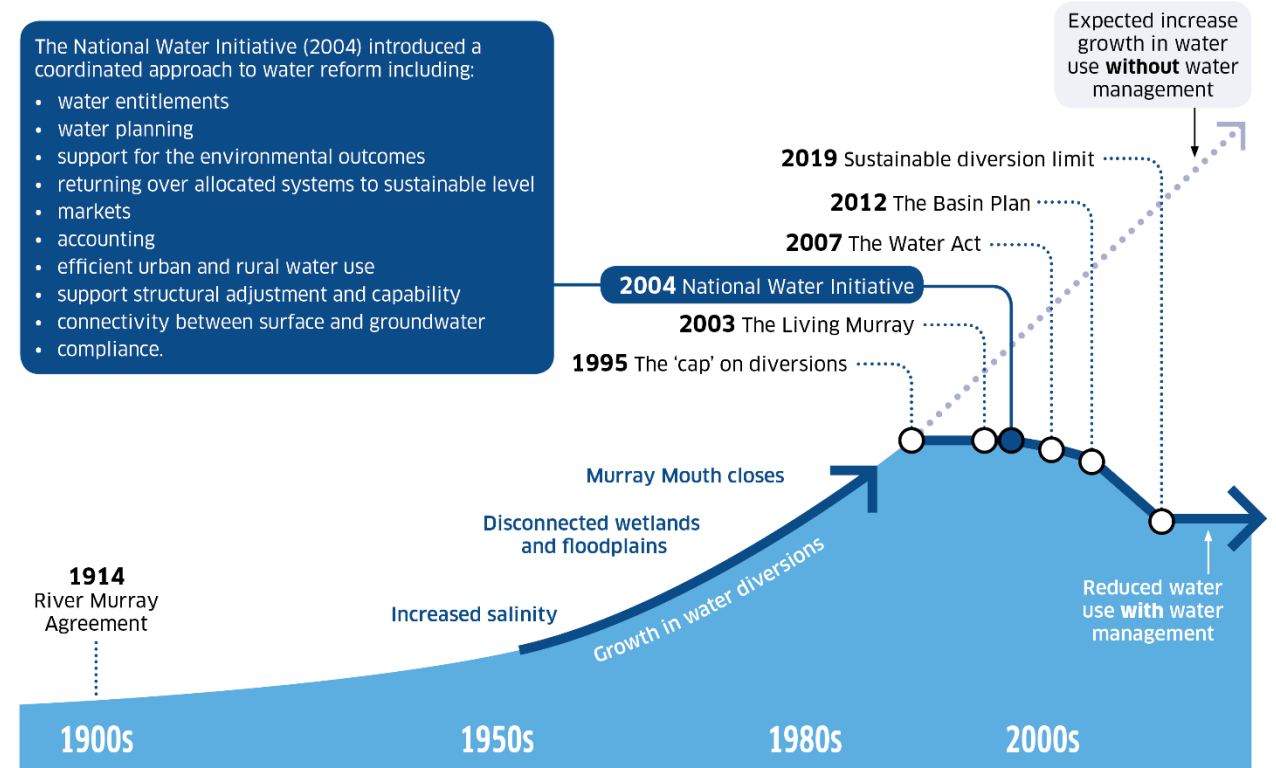
Adopting a Water Act and a cap on water use



History of water reform in the Basin

The National Water Initiative (2004) introduced a coordinated approach to water reform including:

- water entitlements
- water planning
- support for the environmental outcomes
- returning over allocated systems to sustainable level
- markets
- accounting
- efficient urban and rural water use
- support structural adjustment and capability
- connectivity between surface and groundwater
- compliance.



Key lessons

- Know your context
- Act early
- Balance ecological, social, cultural and economic concerns
- Building blocks
- Integrated approaches
- Adaptable and flexible management systems

Thank you



The Australian Water Partnership is supported by the Australian Government and managed by eWater Limited