

Australia – water partners for development

HELPING to MANAGE WATER SCARCITY in the INDO-PACIFIC

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Australia's Water Reform Journey - Managing Water Scarcity

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Outline

1. Water Reform in Australia

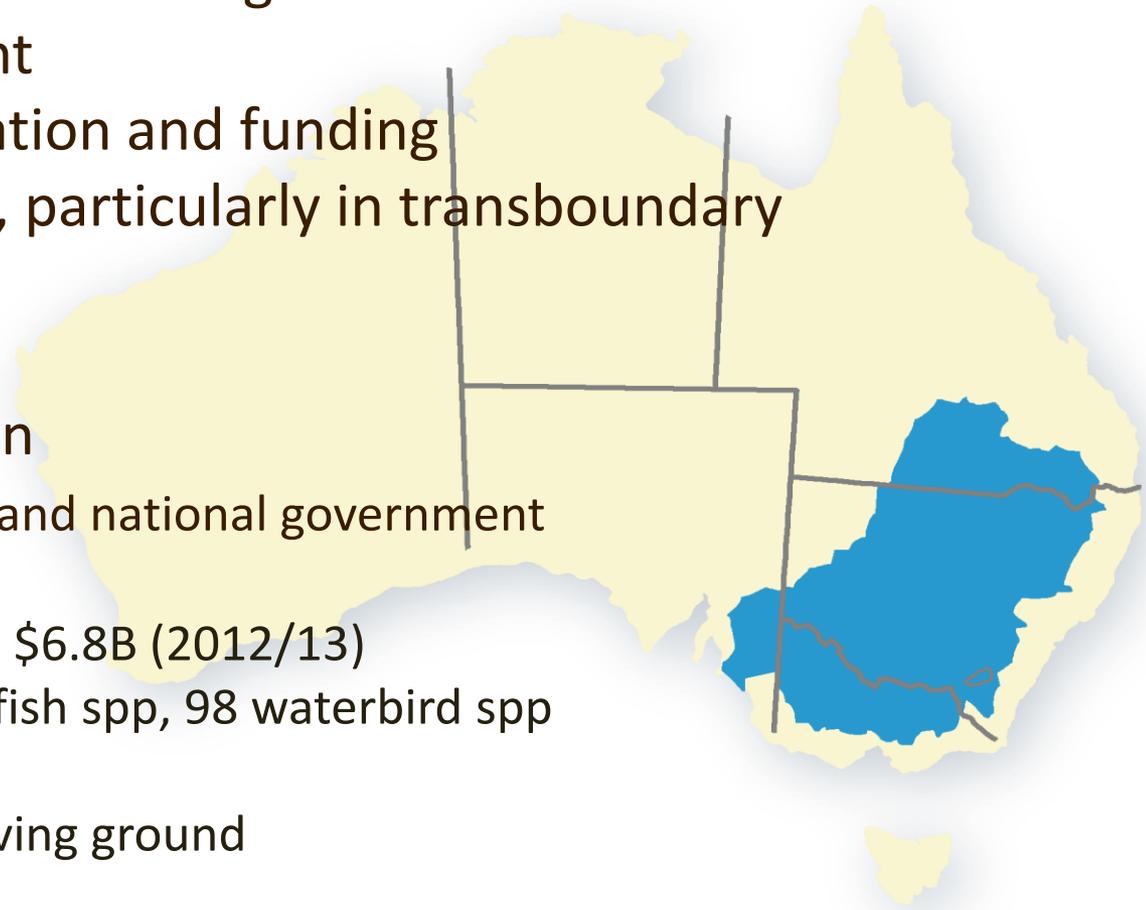
- Rationale
- Key Elements of Water Reform in Australia
- Outcomes

2. The Millennium Drought

3. Conclusions

Australia's Water Management

- Australia - Federation of 6 states and 2 territories
- States - land and water management
- National Government
 - oversight, facilitation and funding
 - national interest, particularly in transboundary basin
- Murray-Darling Basin
 - 4 states, 1 territory and national government
 - >2M people
 - ~70% Aus irrigation, \$6.8B (2012/13)
 - 30000 wetlands, 60 fish spp, 98 waterbird spp
 - over-committed
 - Melting pot and proving ground



Australia's Water Reform Journey

- Over 30 years long
- Up to 1980s – **Build and Supply** Phase
 - Storage ~1900 - 240 GL to 84 800 GL by 2005
- Legacy
 - Large government debt
 - Inadequate water quality and service delivery in some urban areas
 - Financially unsustainable water authorities
 - Inefficient irrigation producing low value returns
 - Widespread environmental degradation
 - Continuing challenges from drought
- Murray-Darling Basin – where it all came together
- Conclusion – poor return to economy, environmentally unsustainable



Australian Water Reform Policy Timeline

MDB Govts endorse Salinity & Drainage strategy

Extractions capped in the Murray Darling Basin

MDB Govts endorse 500GL to be returned to environment and invest \$500M

1984

1985

1994

1995

2004

Victorian Parliamentary Review of water management

COAG endorses the National Water Reform Framework

COAG endorses National Water Initiative Australian Government Water Fund \$2 billion

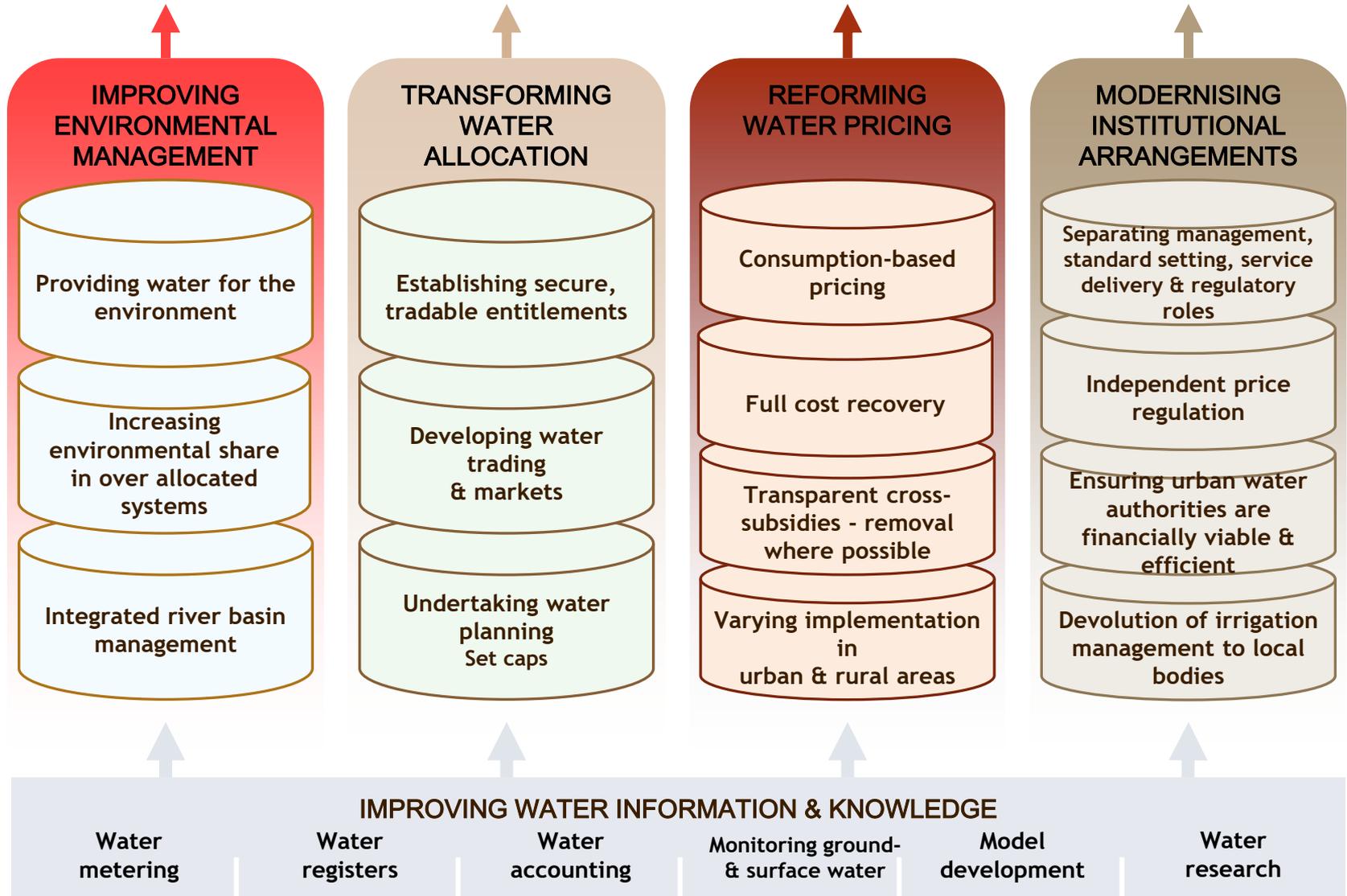
Objectives

Increase productivity & efficiency of Australia's water use
Ensure the health of river and groundwater systems



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COMMUNITY & STAKEHOLDER INPUTS

30 Years On - Progress

Robust statutory water entitlement and planning in place in most states

- Water rights used as loan security

Water plans in place for all high risk areas

- >80% of water managed under plans
- Caps in place, entitlements allocated, env water provisions, prerequisites to trade, community involvement

Mature MDB water market

- In 12/13, water market turnover - \$1.4B
- In 2015, value of all entitlements in southern MDB - \$6.9B
- key to management in drought
- Used by irrigators, water authorities, governments, environment
- markets elsewhere but less mature

Environment

- Legal provisions for water for the environment
- Slow progress on over-committed systems except in MDB
- Environmental Water Holders in place
 - MDB - > 2400GL of entitlement (Commonwealth)

30 Years On - Progress

Drinking water generally safe and of high quality

Residential water consumption reduced – on average, 179kL per property pa

Progress in water pricing

- Full cost recovery in metropolitan systems
 - Some include some externalities
 - Dividends to govt
- Full cost recovery in most urban systems
- Progress in rural but significant way to go

Some form of economic regulation of water price

Good information – water accounting and water register

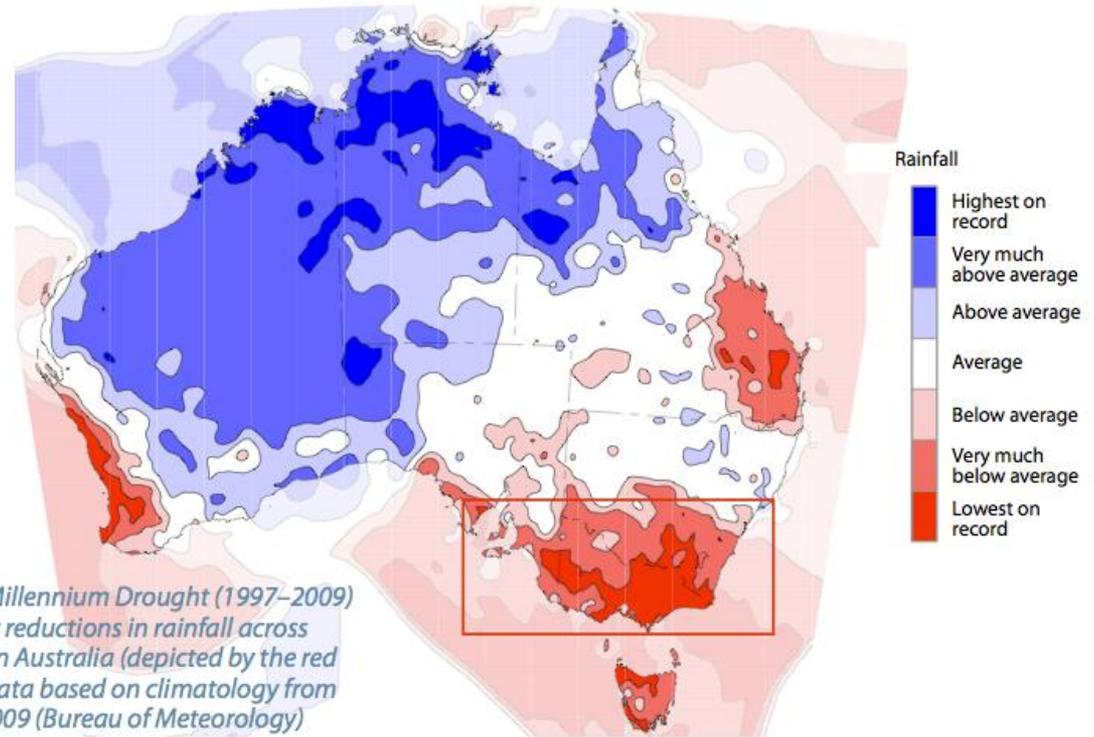
Reforms are inter-related – progress in one drives improvements in others

Reforms tested in Millennium Drought

1997 to 2009: Longest, most severe on record in SE Australia

Conditions

- equivalent to 'worst case' 2050 climate change scenario
- Outside the 'design bounds' of dam and river ops and entitlement systems



Reforms tested in Millennium Drought

Built on general reform directions BUT

Directed at coping with a drier future

Urban

- Demand management – restrictions, water conservation
- Use of alternative water - recycled water, stormwater, desalination

Irrigation

- Water market critical
 - Utilisation increased
 - Water went to highest value use
 - Production became more efficient
- Government investment in efficient irrigation systems and farms

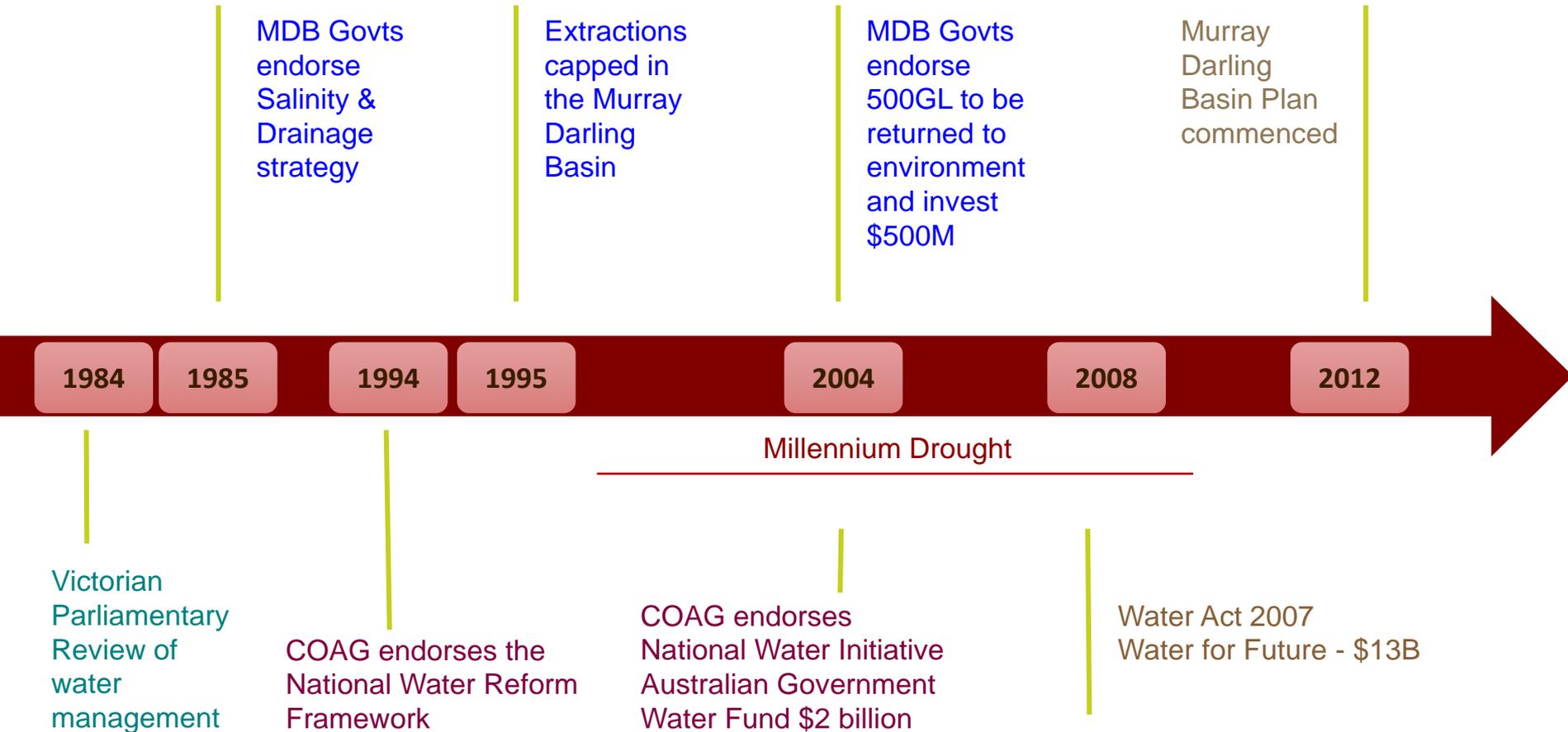
Environment

- MDB Reset ~\$13B
- Policies for efficient water use and protection

Reforms tested in Millennium Drought

- Drought showed the value of water and impact of water scarcity on all sectors
- Early water reform provided level of drought resilience
 - Market
 - Pricing
 - Improved environmental management
- Actions taken through the drought
 - Built on reform
 - Extended reform to provide capacity to deal with extreme dry
 - Built drought resilience in all sectors
 - Enhanced understanding of value

Australian Water Reform Policy Timeline



Lessons

Water Reform is a long term social transformation

- Affects people, livelihoods, communities, environments, regional economies
- Progress occurs through achieving broadly agreed outcomes that are politically achievable

So

- Water reform takes time - an evolution occurring in steps
 - Water markets in MDB
- Need stakeholder and community involvement at every step
- Can't do everything at once
- Leadership and roadmap critical

Objectives

Increase productivity & efficiency of Australia's water use
Ensure the health of river and groundwater systems

Water reform in Australia has been successful but still work to be done

- Early water reform provided level of drought resilience
 - Market
 - Pricing
 - Improved environmental management
 - Actions taken through the drought
 - Built on reform and extended to provide capacity to deal with extreme dry
 - Built drought resilience in all sectors
 - Next challenges
 - Climate change
 - Population growth in urban areas
 - Role of water in liveable cities
 - Greater efficiency and production
 - Maintaining environmental sustainability
- Social transformation
 - evolutionary and opportunistic
 - Processes of participatory decision-making, community and stakeholder input