

# Australia – water partners for development

HELPING to MANAGE WATER SCARCITY in the INDO-PACIFIC

**Understanding the water resource base**

**River basin planning & water allocations framework**

**Governance reforms & institutional strengthening**

**Managing demand & improving efficiency**

**THE  
AUSTRALIAN  
WATER  
PARTNERSHIP**



*An initiative of the Australian Government.*

Image by Dave Kan  
Sunshine Coast, Queensland  
Australia



# **Ayeyarwady – Murray Darling Basin twinning relationship**

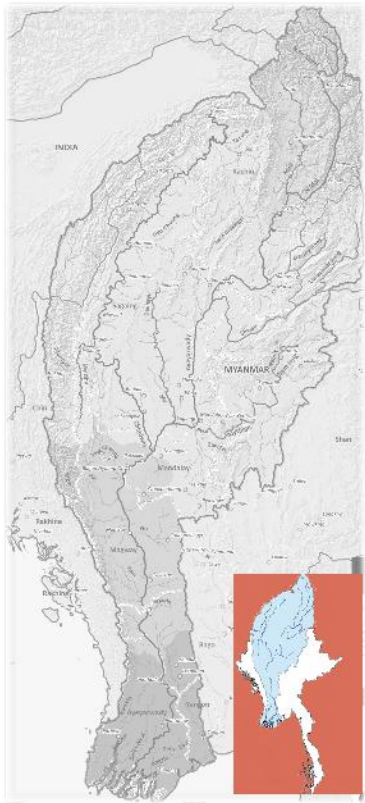
Prof. Dr. Khin Ni Ni Thein, Secretary NWRC Advisory Group  
Tarek Ketelsen, Myanmar Coordinator, Australia Water Partnership

# The Ayeyarwady – Murray Darling twinning relationship

- A strategic, basin-to-basin partnership, to support sustainable management of the Ayeyarwady River Basin.
- Share experiences from our processes of planning, utilizing, conserving and managing our national rivers.
  - Science
  - Policy
  - Consultations
- A program of capacity building and institutional strengthening

# Our national rivers

	MDB	AB
Area (mil.km2)	1.1	0.41
Length (km)	2,740	2,170
Population (millions)	~ 2	35
Average Rainfall (mm/yr)	300 – 1,500 (average 470)	~600 - >3,000
Discharge (km3/yr)	24.3	400



- Two very different basins
- United by a common vision for IWRM reform



## A snap shot of water management in the MDB

## A snap shot of water management in Myanmar



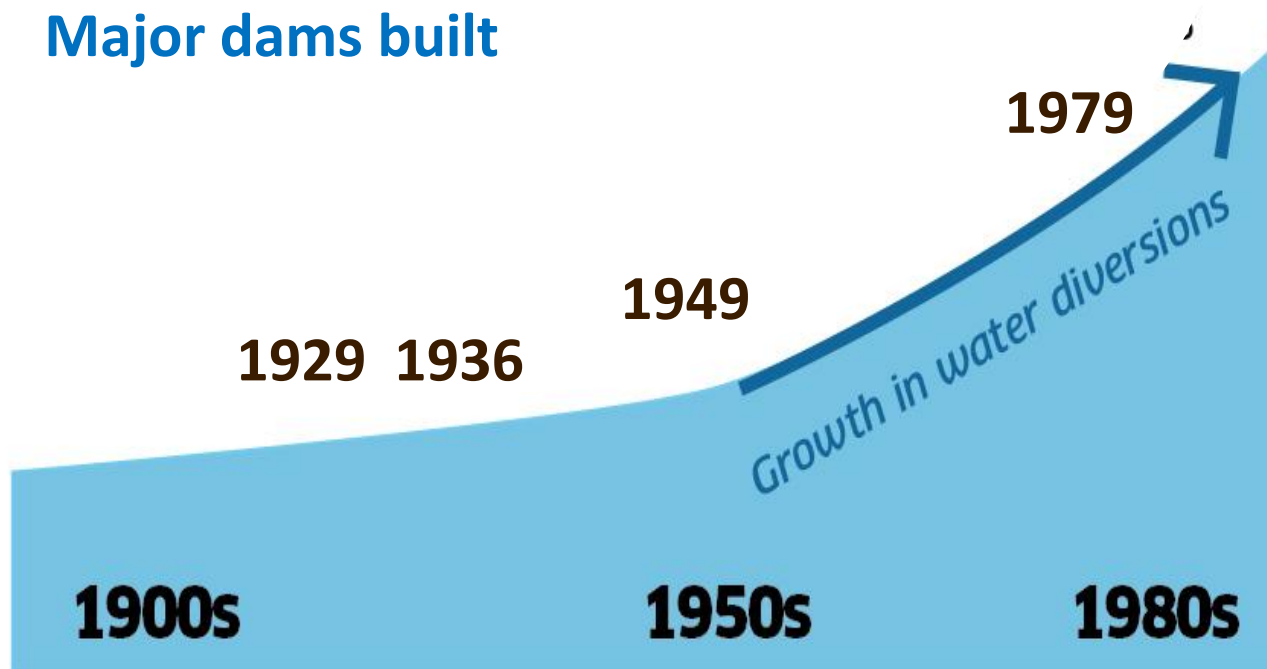
1915 River Murray Waters Agreement



# The Australian story...

## Rapid growth in water extraction

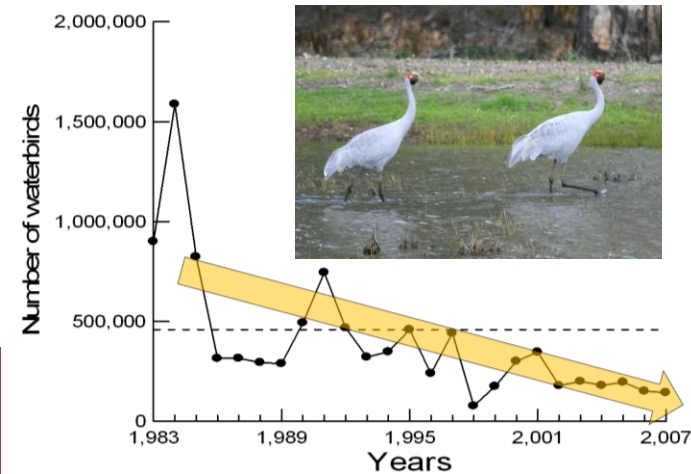
### Major dams built



- \$6.7 billion annual irrigated agricultural production
- Australia's major food-bowl
- Many thriving rural cities and towns built around irrigation farming and services

# The Australian story... but at a big cost to the Murray-Darling system

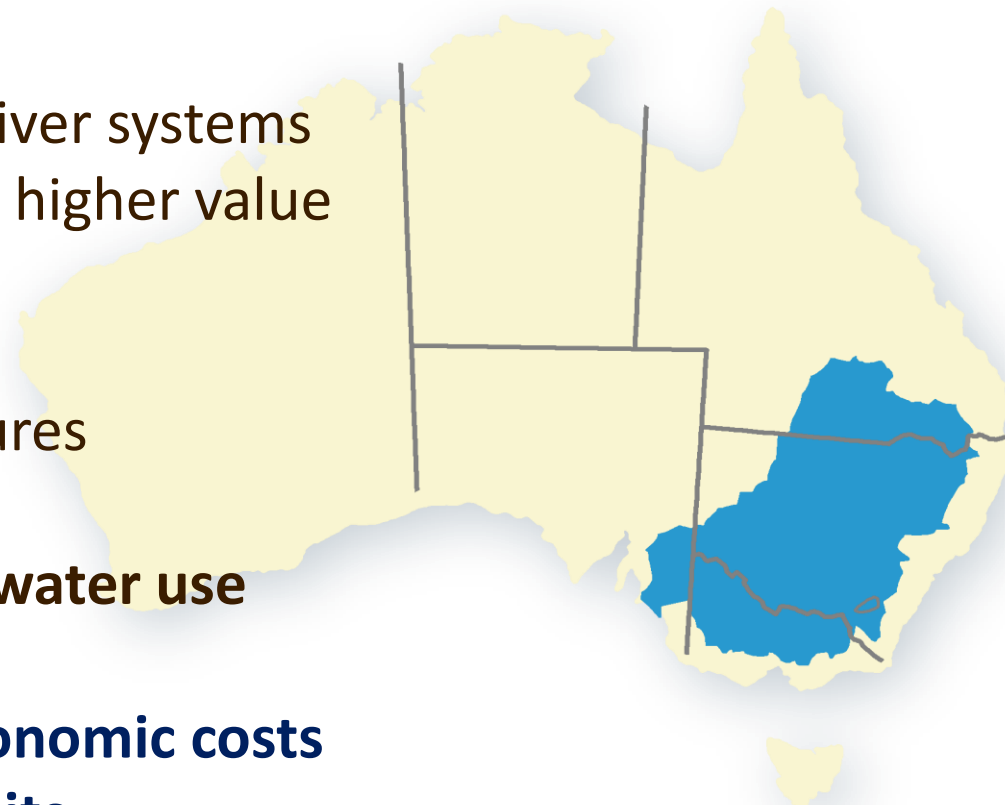
- Land clearing and salinity
- Erosion
- River mouth sedimentation & closure
- Toxic algal blooms
- Loss of biodiversity



# The Australian story...

## Development decades – before 1990's

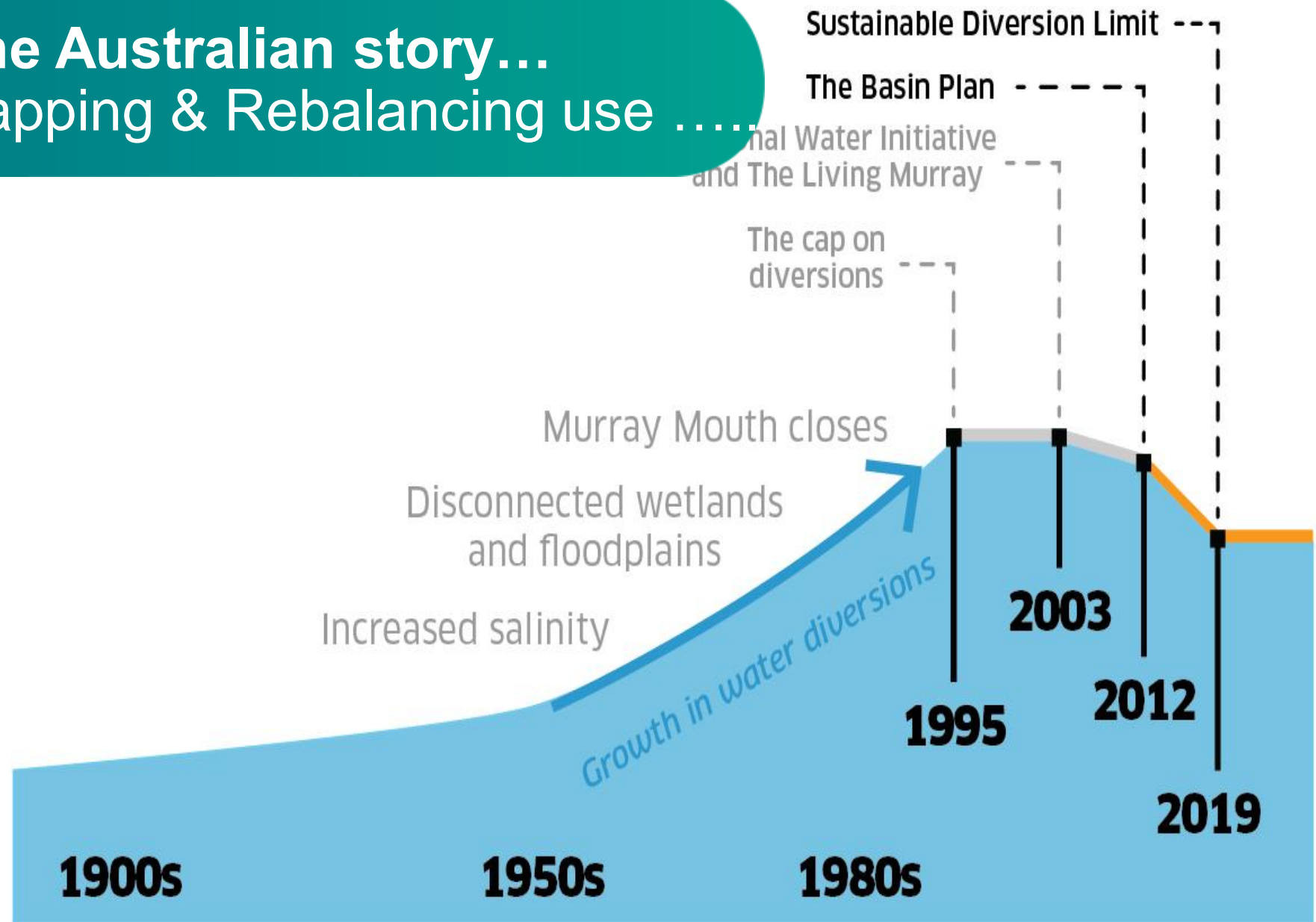
- Didn't know who was entitled to what water
  - Unmeasured water use
  - Inefficient water use
  - Fully or over-allocated many river systems
  - Difficulties in moving water to higher value uses
  - Poor pricing policy
  - Inefficient institutional structures
- Poor return to economy from water use
- Environmental degradation
- **Environmental, social and economic costs of exceeding resource use limits**



Ackn: Prof. Jane Doolan



# The Australian story... Capping & Rebalancing use



# Key Elements of Water Reform in MDB (1)

- Integrated water planning to provide
  - Clear, secure water entitlements for all users
  - Environmental entitlements and provisions
  - Improved participatory decision making
- Functioning water markets (ability to redistribute water use for higher economic return)
- Improved information base - monitoring, metering and water accounting
- Focus on efficiency
  - Irrigation – High value crops, sustainable irrigation industry
  - Urban – security of supply and liveability
- Rebalancing human and environmental use of water

Ackn: Prof. Jane Doolan

# Overview of the twinning relationship

providing opportunity for MDB water managers, scientists and engineers to support, contribute and partner with the Government of Myanmar during the development of the first Ayeyarwady River Basin Master Plan.

1. build capacity of the Government of Myanmar through the NWRC Hydro-Informatics Centre staff and related technical staff from DWIR, DMH and concerned Departments;
2. Partner Australian and Myanmar technical staff for the development of key Ayeyarwady basin planning products such as
  - the State of Basin Assessment (SOBA) Report
  - Basin Development and Conservation Scoping Study,
  - River Basin Master plan

# Twinning partners... so far





# Nature of the twinning

Nature of support	Expertise required	Level of effort
<p><b>Strategic advisory support:</b> basin planning formulation, trade-off analysis and stakeholder consultations and conflict resolution.</p>	<p>High-level MDB managers with experience in developing and implementing water policy and plans in the MDB</p>	<p>Short duration, focussed inputs 2-3 times per year</p>
<p><b>Technical mentoring:</b> technical input, mentoring and support to HIC for SOBA Report &amp; BMP</p>	<p>Senior water specialists with experience in developing substantive components of river basin plans, (water engineering, environmental science, resource economics, GIS etc).</p>	<p>Short duration, focussed inputs 4 times per year.</p>
<p><b>Peer-review:</b> peer-review of the SOBA Report and the BMP, including leading a multi-disciplinary, independent peer review panel.</p>	<p>Senior MDB planning specialist to co-chair the review panel and MDB technical specialists as members.</p>	<p>Short duration, focussed inputs 1-2 times per year.</p>
<p><b>Capacity-building:</b> Institutional strengthening of the HIC and other committees and organisations engaged in the implementation of the AIRBM Project.</p>	<p>Key personnel at government institutions and other organisations involved in the MDB (e.g. the MDBA, BOM, Irrigators associations etc).</p>	<p>1-2 Study tours per year for selected delegations of GOM water managers or technical specialists.</p>

# Launch of the twinning , August 2017

- Press launch
- MDBA launch mission



# Highlights of the twinning to date

1. River basin modelling with SOURCE (Dec 2016)
2. Hydraulic modelling training (Jan 2017)





# Highlights of the twinning to date

3. Hydrographic field survey training and rating curve review (Feb – March 2017)
4. Ayeyarwady State of the Basin Assessment (SOBA) (Jan 2016 – Sept 2017)





Thank you for your attention

