



Learning from the lessons of the past: freshwater conservation and protection in the Murray-Darling Basin

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Designing and managing protected areas to conserve
ecosystems and biodiversity Symposium - Skukuza,
Kruger National Park 8-13 October 2006

Australia's Murray-Darling - an ecological mess

Water resource development

State of protected aquatic ecosystems

Role of 'river people' - floodplain graziers

What's working



Grapes and fruit



Rice



Geography

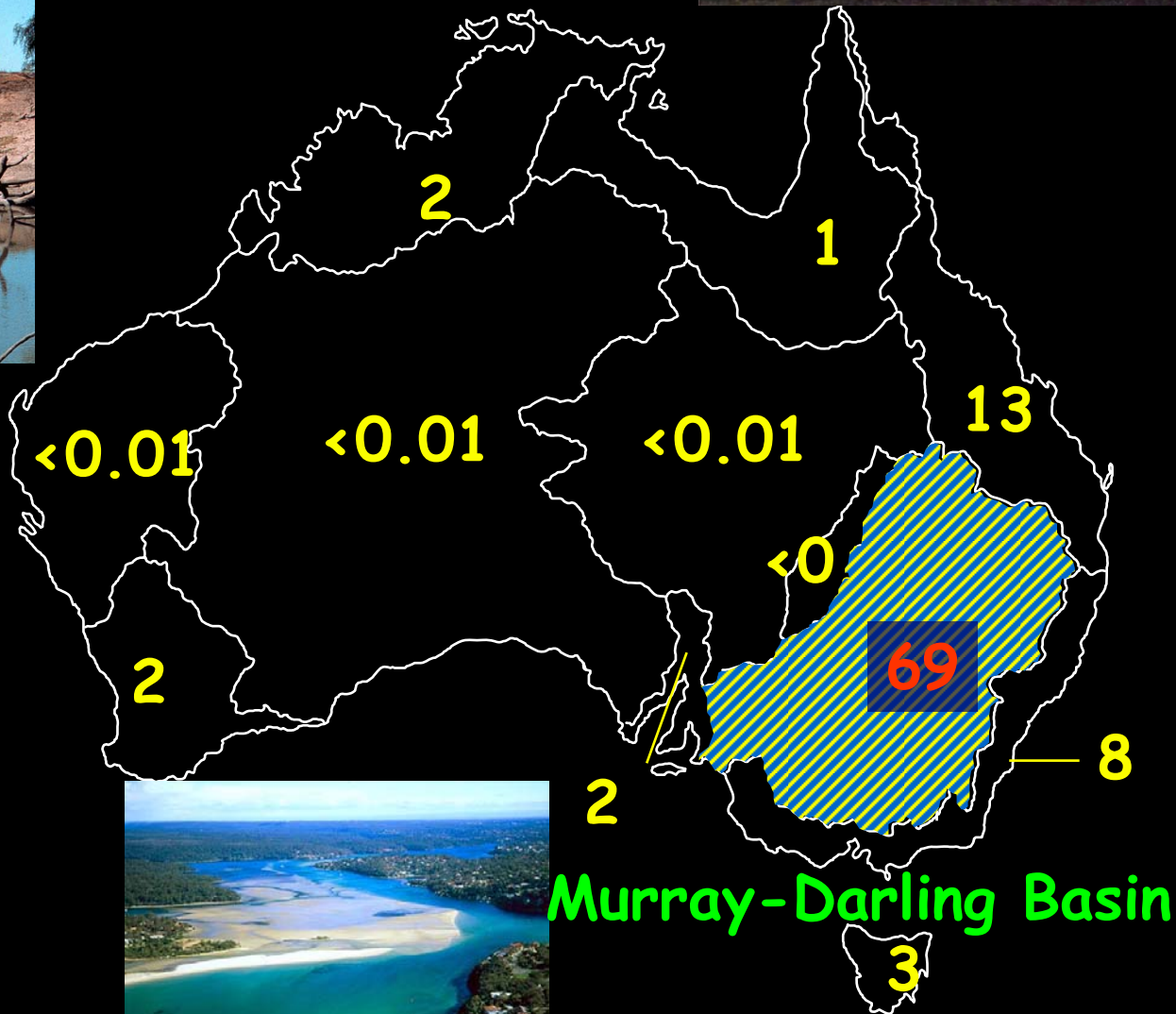


Cotton

Relative surface water use (%)



•65% increase in water use between 1983/84-1996/1997 (Australian Water Resource Assessment 2001)



Murray-Darling Basin

Degraded protected areas and Ramsar sites



Narran Lakes

Gwydir wetlands

Macquarie Marshes

Lowbidgee floodplain

Barmah-Millewa Forest

Kulkyne Lakes

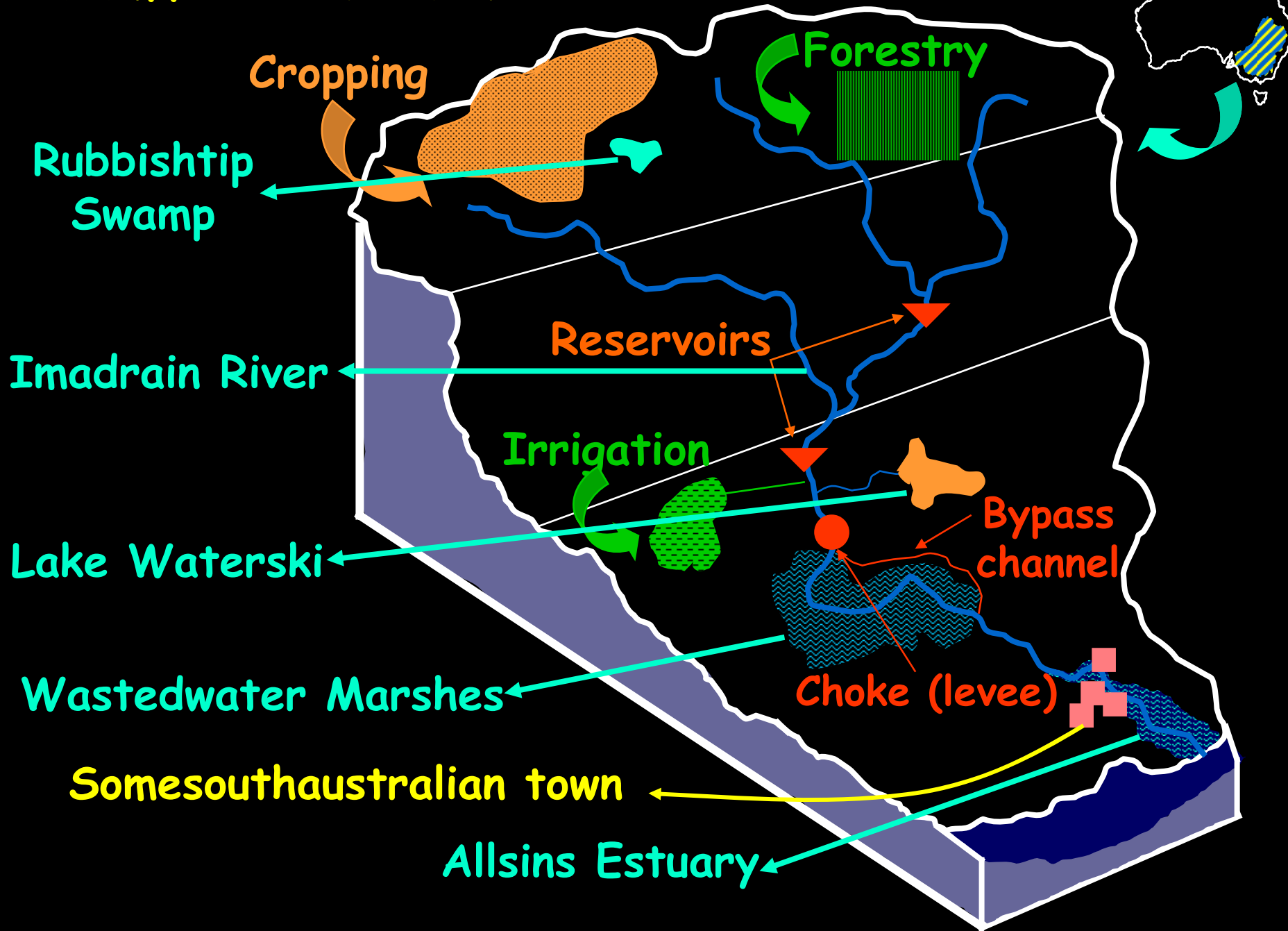
Chowilla floodplain

Coorong

Menindee Lakes



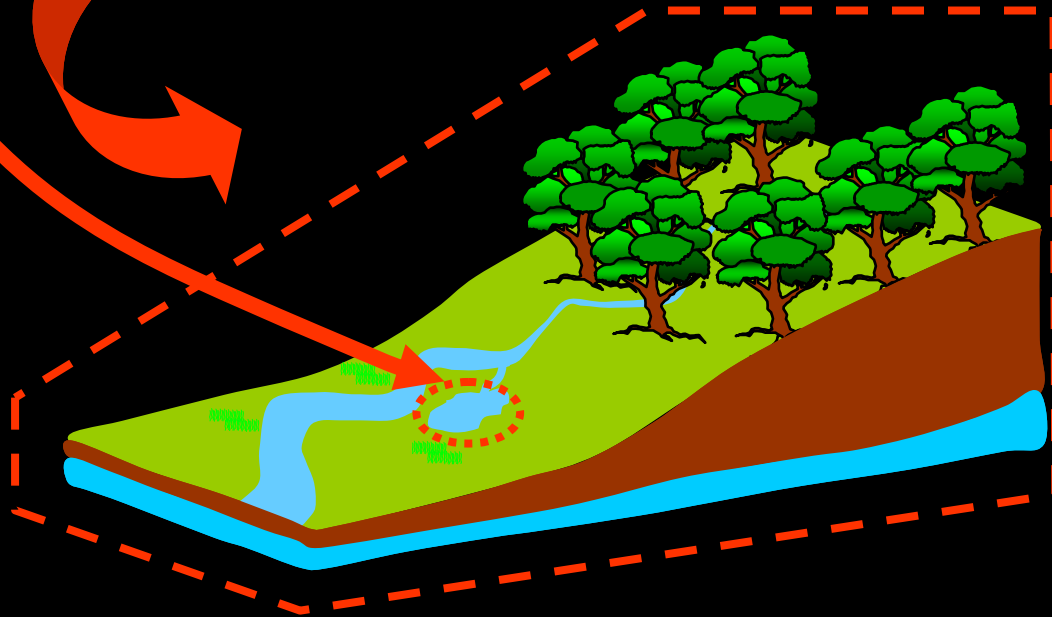
Abitstuffed River Basin



Scales for conservation

- 'Icon approach' - within catchments

'Whole' river protection

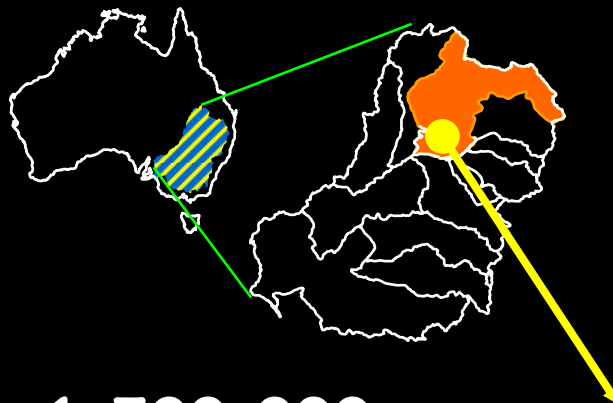


- 'River people'

- Politics



Narran Lakes Nature Reserve (Ramsar site)



Narran Lakes

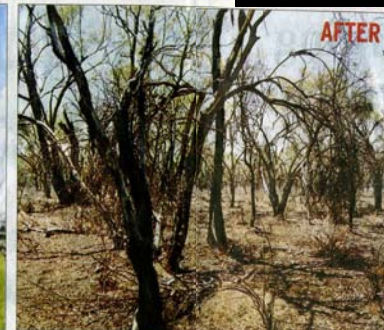
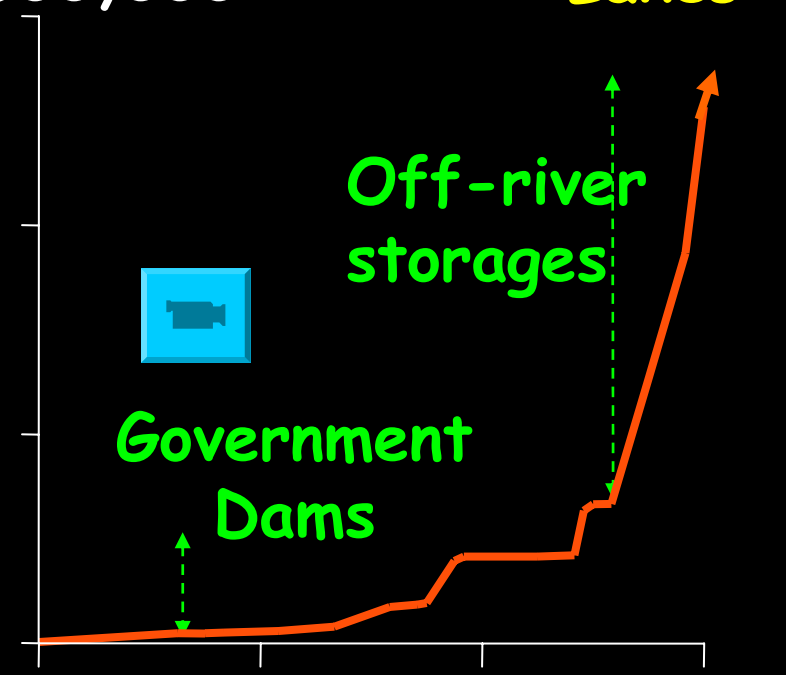
1,500,000

Storage (ML)

Off-river storages

Government Dams

1927 1951 1975 1999



Shown study — Brenda Station after the floods of 1997, left, showing thriving trees and pasture; and in September 2005, with arid conditions and dying trees.

Sucked dry by water rats at the border

Wendy Frey
Environment Reporter

THE State Government has called on the Commonwealth to improve its long-running dispute that has seen Queensland across irrigation starting NSW farmers of water.

NW farmer the massive expansion of Cable Station, Assin's largest cotton farm and one of the biggest in the world, for a dramatic decline in the amount of water flowing across the border since the 1960s. Its appeal for help to the Commonwealth comes as Cable plans to increase its 20,000 hectares irrigated with cotton by 50 per cent.

THE way Queensland is dealing with water and water rights across that border is a bit like them stealing the State of Origin cup without even a game being played.

IAN MACDONALD, NSW Natural Resources Minister

NW graziers affected by the issue. "I visit the Commonwealth Government to take a more active role in this. They have the resources to make a difference."

Mr Macdonald met the federal parliamentary secretary for water, Malcolm Turnbull, on Wednesday and discussed possible options, but Mr Turnbull has yet to offer publicity what you be think the Commonwealth have had 60 per cent of

for the past 27 years. Their property, Brenda, hasn't experienced a major flood for seven years, despite the one that hit the catchment in 2004.

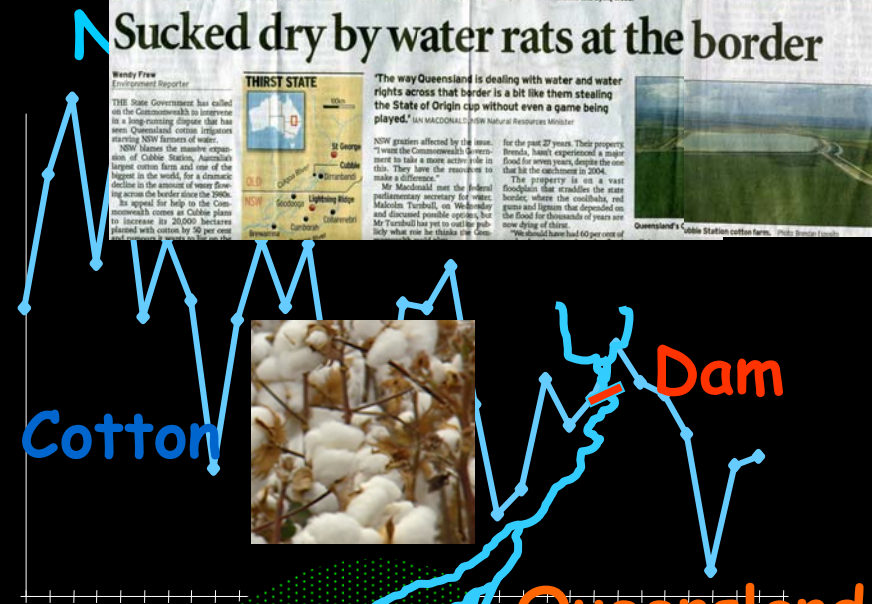
The property is on a vast floodplain that straddles the state border, where the country's red gums and ligum that depended on the Godd for thousands of years are now dying of thirst.

"We demand have had 60 per cent of

Queensland's Cable Station cotton farm. Photo: Brenda Station

100

% flows



Cotton

Dam

1974 1998 2004



Queensland
New South Wales

Floodplain

Macquarie Marshes

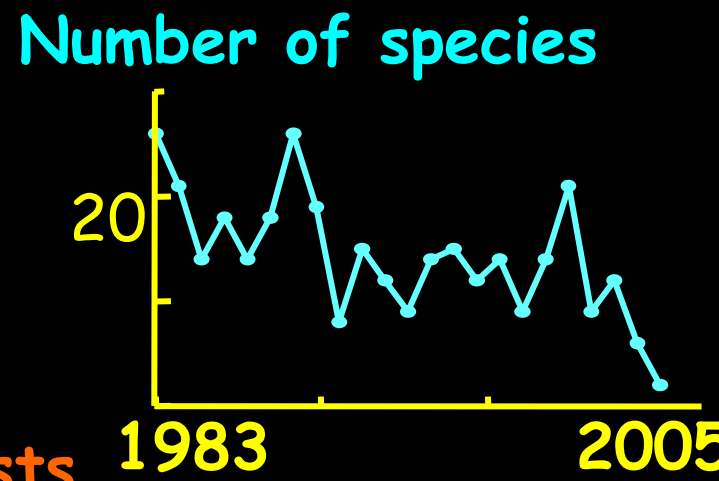
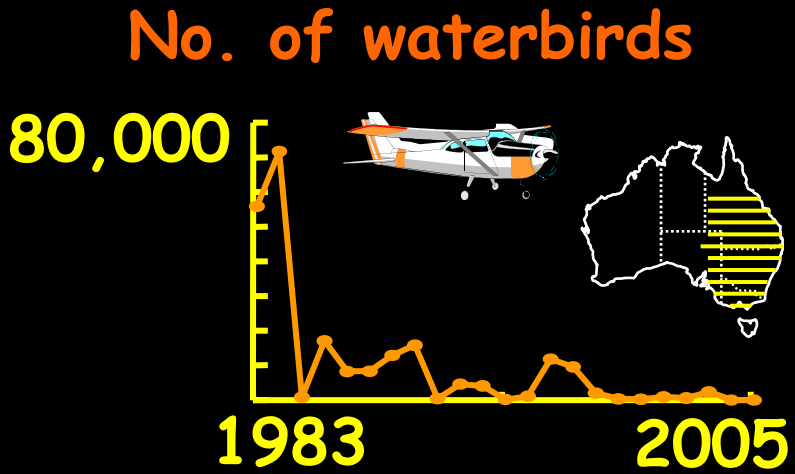
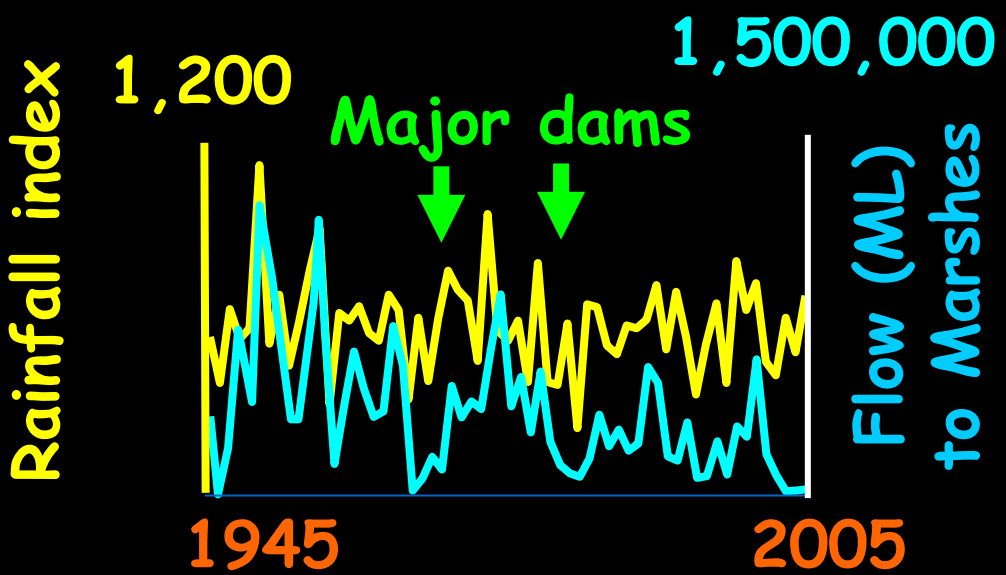


- Nature Reserve (10%) and the rest - mostly floodplain grazing
- Two Ramsar wetlands
- Abstraction upstream for irrigation

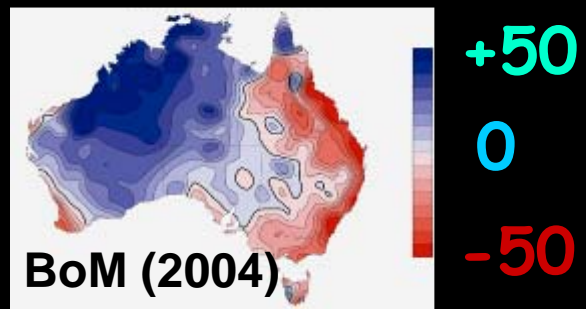
Cotton



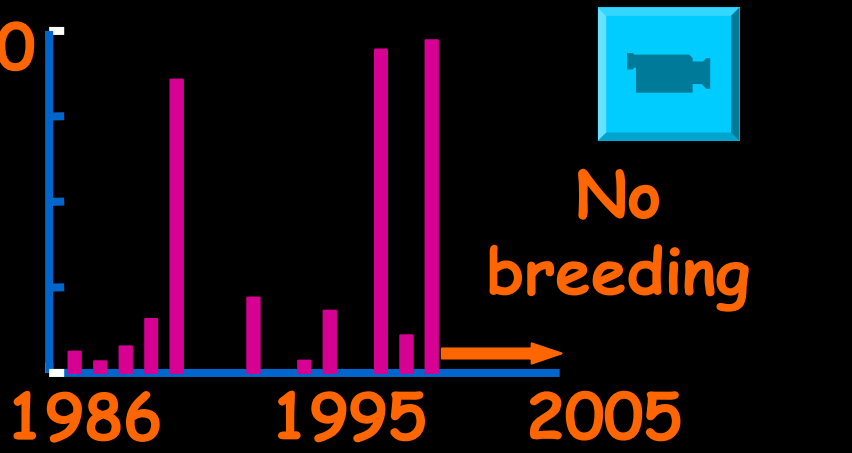
Degradation



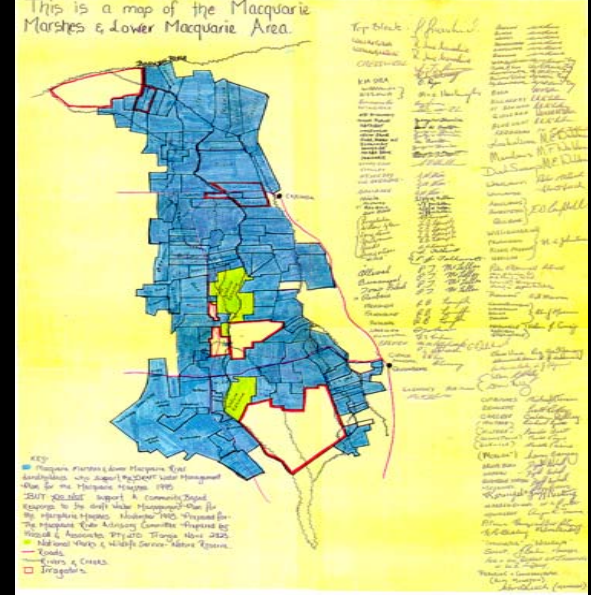
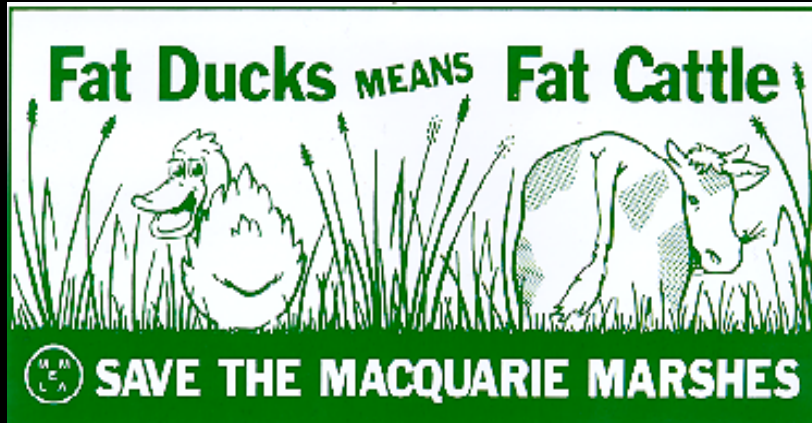
1950-2003 (mm/10 yrs)



No. of nests



Policy and management



River people - supporting environmental flows



- Water Management Plan 1996 - 12% cut to irrigation diversions
- 160,000 ML of environmental flows
- Focus for conservation of other rivers
- Potent alliances for conservation
- Media
- Riverbank

Restoring environmental flows

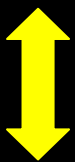
- Riverbank (NSW Government) - \$105 million
 - Buy-back of irrigation licences
 - Macquarie, Lachlan, Gwydir, Narran
- \$1 billion restoration of flows to the River Murray
 - All Governments of the Murray-Darling Basin
 - initially through water efficiencies
 - 'buy-back' of water in theory



River Murray slide

1900's

Healthy



Unhealthy

1960's - 1970's

Restoration

High

Flow
(ML)

3,350,000

Moderate

2001

Low

1,500,000

750,000

350,000

Time

Flow options

Final figure - 500,000 ML



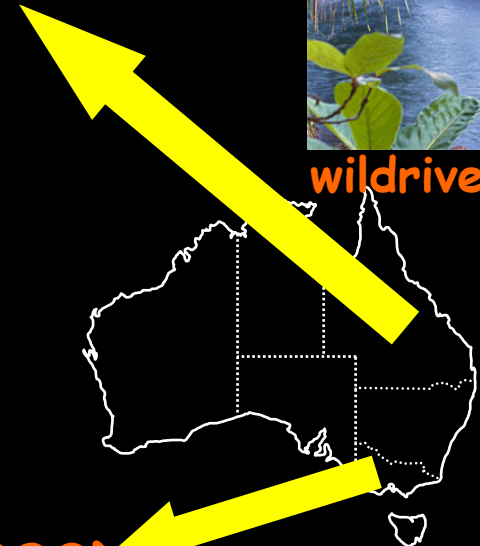
Whole River Basin Protection in Australia

Queensland - Wild Rivers legislation -2006

- Protect free-flowing rivers
- No new dams
- Originally 19 rivers, now six



wildrivers.org



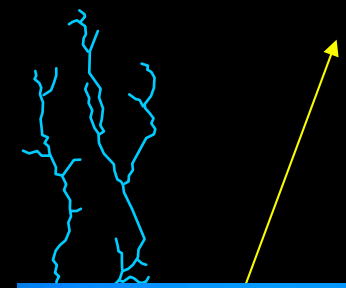
Victorian Rivers (Heritage Rivers Act 1992)

- 18 Heritage Rivers, 25 natural catchments
- Protection of natural rivers and streams
- Scenic, recreational, cultural, conservation
- Little progress on management



Ovens River

Paroo River



Paroo River

Paroo River Agreement signed by Premiers in July 2003

Currawinya National Park

Queensland

New South Wales

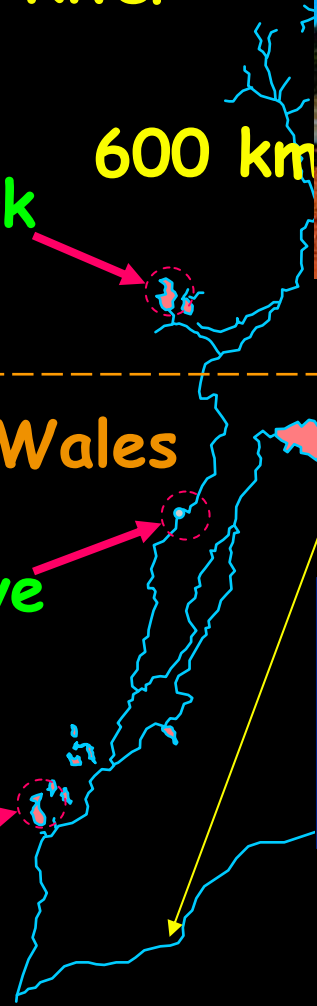
600 km



Floodplain graziers

- Research Nocolache Nature Reserve
- Scientific workshop on the river
- Media
- Effective community action
- Strong Government processes

Paroo-Darling National Park



Australian Floodplain Association, Science and conservation NGOs



- River people-science workshops
 - 'Flush-out' water development policies
 - Attract media attention
 - Build political capacity in communities
- Learning from each other - lessons of the Murray-Darling Basin
- Neutralise 'economic' drivers for water development
- 'Unholy alliance' with green groups



Conclusions - lessons learnt

- ◆ Need for ecological data and understanding about ecological and socioeconomic impacts
- ◆ Build political capacity of river communities - 'sold' through media
- ◆ Protected areas - flagships for conservation; 'authorise' conservation involvement in rivers
- ◆ Protected areas - require catchment scale protection of flows
- ◆ Two key models
 - ◆ a) 'icon' approach;
 - ◆ b) flow protection for whole river basins