

AUSTRALIA'S JOURNEY: EXPLORING, CONQUERING, CONSERVING AND GROWING

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Since starting my new job with the NSW Department of Infrastructure, Planning and Natural Resources in February, I have been fortunate to have spent many days travelling around NSW, meeting farmers and irrigators, looking at new irrigation developments using stunning new water efficient technologies and discussing with many irrigators the conservation works they are also involved in and planning.

What is happening in irrigated agriculture in Australia today, despite the worst drought on record, is truly extraordinary.

On one of these trips, we were just outside Burke, looking at a natural billabong that has been used for decades as a semi-permanent water storage for cotton and comparing it with the more efficient coffer dams up stream. It is where Sir Thomas Mitchell – of Mitchell Grass, Major Mitchell Cockatoo, and Mitchell Library fame - reached the Darling River.

Later when I was back in my new office in Sydney, considering the topic of my talk today, the irony struck me that I was now sitting at the very desk in Bridge Street that Thomas Mitchell probably planned his trip to Bourke and just what a remarkably different world it was 170 years ago: a vast continent inhabited by Aboriginal people, with a small European settlement hanging on for dear life on the edge.

I was inspired to do a little digging into Thomas Mitchell and thought it useful to share some of this with you today, to reflect on how far this nation has come in the short 200 years of European settlement.

It has been a truly extraordinary journey, marked by many great achievements, many tragedies and many mistakes, but it is a journey that provided the foundations for the prosperous nation that we are so lucky to enjoy today.

We all know that Australia is a very special place.

Our national anthem celebrates it all.

We are young and free, with golden soil and wealth for toil and our land does abound in nature's gifts of beauty rich and rare.

It is this great natural heritage from which our nation's wealth was based and from which our identity is forged.

That's why our national anthem resonates so strongly with us.

Australia, the land, is who we are.

In the past two years, Australia has encountered its biggest drought on record, dam levels in Sydney and Melbourne are at critical levels, farm dams and inland reservoirs are empty.

And judging by the reports last weekend, El Nino may be back. Prospects for the immediate future are uncertain to say the least.

It's been a tough time in the bush, but it's a natural part of doing business in Australia.

The past two years may also well prove to be significant for another reason.

The worst drought to hit our continent in over a century seems to have galvanised Australians to a new understanding of our land.

We now know that the European agricultural systems we used to build our nation also created the profound environmental challenges we face today.

And because we are so fortunate to live in one of the world's great democracies, this has resulted in some remarkable changes in our political system.

This new understanding of our land is ushering in a new era where traditional opponents are coming together to fix problems that most Australians believed were insoluble.

I was having dinner with Howard Jones, chair of the Murray Wetlands Working Group and board member of Western Murray Irrigation, last week at Mildura. He recounted a visit to Australia from people from the Middle East, who were stunned to learn that we had adopted a cross jurisdiction cap on water extraction in the Murray Darling Basin without a shot being fired. In their world such an agreement was inconceivable and would without doubt lead to war.

And yes, the changes in the past two years could be called revolutionary, but they have been achieved in the way Australian's resolve most things: by talking through the issues with each other, sometimes heated and passionate, but always looking for solutions that all sides recognise are fair.

Last year, the NSW government adopted a radical reform agenda for natural resource management. Premier Carr saw that the current system was not fixing the damage caused to our landscapes, because we were still broadscale clearing native vegetation whilst billions of dollars of tax payers money was building bureaucracies instead of helping farmers plant trees and repair damaged rivers.

Remarkably, despite nearly a decade of dispute, these reforms were supported by both the NSW Farmers Association and also environment groups such as The Wilderness Society - because they addressed the cause of the problem, not the symptoms, because they focussed on solutions not blame, and because they were fair.

Then in August last year our Deputy Prime Minister, John Anderson, drove an historic deal for a \$500 million National Water Initiative which will, for the first time, put more water put back in the Murray River and create a water title system to suit Australia's unique environment.

Another example of the Australian system of fairness at work: political leaders from both sides of politics working together to achieve change.

These reforms are built on this new understanding of how our landscape works.

21st solutions to 21st century problems.

We have seen the era of exploration where the likes of Thomas Mitchell set out and explored the unknown.

We have witnessed the period where Europeans followed the explorers and settled this ancient continent, imposing agricultural systems developed over centuries to suit landscapes half a world away.

We are now entering a third period of our history where we are taking this knowledge and building a new way of doing business in Australia:

- one where conservation and growth are mutually supporting objectives;
- where sustainability became more than just a green agenda - where sustainability becomes a triple bottom line agenda;
- where wealth creation and biodiversity conservation are both seen as progress; and
- where our production systems are being tailored to the natural cycles of Australia's droughts, floods and fire.

Your theme for the conference, "Coming of Age" could not therefore, be more timely.

Over the next two days you will be discussing and debated issues concerning the future of irrigation in Australia. There will be agreement and disagreement, great ideas and silly ones. They will almost certainly be directed to the future and there will be much debate about the uncertainty of water availability over the next few months and about the policy changes working their way through the political system – the National Water Initiative, the Living Murray to name just two.

Given the radical changes that have been taking place over the past couple of years, I thought it useful to begin the conference by taking time to reflect on how we have got to where we are today.

Understanding our past can help us take control of our the future.

In 1836 – 168 years ago - Thomas Mitchell led the third of his four expeditions down the Lachlan to the Murrumbidgee and Murray Rivers. This was one of the largest and most costly expeditions of its day – comprising 11 horses, 52 bullocks, 100 sheep, 22 carts, a boat carriage and 22 convicts providing the man power. The group left Orange and followed the Lachlan and Murrumbidgee Rivers to the junction of the Murray, then turned west to the junction of the Darling.

On the 21st June in 1836, at the camp on the banks of the Murray, Mitchell was kept awake by the loud calls of black swans. He wrote in his diary "I therefore name this isolated and remarkable feature Swan Hill."

When he reached the Murray/Darling junction he turned south, crossed the Grampians and found rich grazing land, which he called Australia Felix – meaning fortunate land. When he returned to Sydney with the news, Mitchell sparked a land rush and was knighted for his discoveries.

Within 70 years of Mitchell's and other explorers expeditions, Europeans had conquered the continent – or so we thought.

These early European settlers quickly learned that water was the magic ingredient for life and prosperity in Australia. River frontages became prized possessions and the Murray and Darling Rivers became fundamental transport links between the inland and 'civilisation'. For about 70 years, from 1860 to 1930 paddle boats dominated these river systems. At its peak, more than 40,000 bails of wool were shipped out of Wilcannia in one year.

By the 1880s the entire western division of NSW was taken up by pastoral holdings. Early sheep runs centred on watercourses and bores were sunk to provide more water. In the three years between 1879 and 1882, as a result of a run of good years, stocking rates doubled, peaking at over 15 million sheep.

Rabbits arrived in 1880 and a seven year drought then followed. The starving sheep and rabbits reduced the western division to dust.

Our first experience of the true Australia – a land of drought and flooding rains.

In the blink of an ecological eye, we had fundamentally changed a continent.

Fast forward 100 years.

Today irrigation dominates Australian agriculture, which contributes billions to Australia's economy, having built the foundations for Australia becoming one of the most wealthy nations on earth and today providing rural communities with jobs and opportunity.

We have learned how to harvest great wealth from our golden soil.

But just as importantly, we are now beginning to understand what it means to live sustainably on this continent – wealth for toil without degrading our nation's gifts of beauty rich and rare.

Australia's definition of sustainable development perhaps.

Professor Tim Flannery put this new understanding most eloquently in his Australia Day address two years ago:

"The environmental forces that have, over millennia, shaped that very distinctive Australia – from kangaroos to gum trees and Aboriginal cultures – are working on us, shaping our culture.

"For most of the last two centuries we have believed that we could remake this continent in the image of Europe – turn the rivers inland and force truculent soils to yield.

"Australians are undergoing a radical reassessment of their relationship with the land, particularly when it comes to the basics like, food, water and fire. Revolutionary changes are taking place in the countryside as farmers ... strive to make primary production sustainable in Australia's unique conditions.

"Three human lifetimes – about 214 years – is simply not long enough to become truly adapted to Australia's unique conditions...

"Yet it has begun..."

These are quite prophetic words: and that was just two years ago.

In that time there has been a quiet revolution taking place. Irrigators like Howard Jones chairing the NSW Murray Wetlands Working Group, using counter-cyclical trading to grow water for the environment and restore wetlands and floodplains using practical, innovative, low cost solutions.

Yet just two years ago the picture was very different. We seemed to have reached a stalemate.

As you know the Wentworth Group formed in October 2002 in the hope of injecting what we felt was an urgently needed circuit breaker to the debate. We released a set of solutions that went to the core of the problem – not enough water for the environment and a dysfunctional water title system making life a misery for irrigators because of the uncertainty.

We called on governmentsⁱ.

- to clarify water property rights and the obligations associated with those rights to give farmers some certainty and to enable water to be recovered for the environment; and
- to restore environmental flows to stressed rivers, such as the River Murray and its tributaries.

We also called for a National Water Plan focusing on improving the health of our damaged rivers, protecting our remaining healthy rivers and improving water use efficiency in Australia.

We subsequently released our *Blueprint for a National Water Plan*ⁱⁱ, in July last year, which set out what we believed were the fundamental reforms that needed to take place.

We said that:

“We need new strategies for managing water in the 21st century because the ways of the 19th and 20th centuries are no longer appropriate. Our southern working rivers do not have enough water to sustain their health and we must not make the same mistakes in our northern rivers.

“Current systems of access rights to use water lack clarity and, in many cases, are not consistent with natural processes. These are discouraging the investment and reallocation of water required to achieve river health, and to create financial security and opportunities for water users.

“Australia desperately needs a national effort to restore and protect our fresh water resources, because the health of our rivers, wetlands, estuaries and groundwater systems is fundamental to the future of cities, industries, agriculture and communities across Australia.

“The solutions lie in crafting new ways of working that guarantee both river health and greater security for future investors.”

The Wentworth Group argued that the Council of Australian Governments should commit to three urgently needed national water reforms:

1. Protect river health and the rights of all Australians to clean usable water:

- by ensuring that the environmental needs of our river systems have first call on the water required to keep them healthy, protecting both their environmental values and ability to meet human needs into the future;
 - by establishing comprehensive water accounts and management systems that reflect the linkages between run-off, river water and groundwater systems;
 - by agreeing to bring over-allocated river and groundwater systems back into balance by recovering water for the environment;
 - by protecting Australia's less developed rivers by adopting an Australia-wide classification system to guide management strategies, and guarantee protection of important natural and cultural values; and
 - by investing in the science required to make better management decisions in the future.
2. Establishing a new, nationally consistent water entitlement and trading system that provides security to both water users and the environment:
- by defining water entitlements as a perpetual share of the available water resource;
 - by clearly articulating ways that water can be used in each catchment to protect both the environment and other uses;
 - by linking entitlements and allocations to transparent and balanced water accounts; and
 - by removing impediments and simplifying temporary and permanent water trading so that water can be used to create greater social and economic value.
3. Engage local communities and ensure a fair transition:
- by supporting community-based catchment, river and estuary management;
 - by establishing Environmental Water Trusts for stressed river systems to provide active and accountable environmental management;
 - by reducing fresh water use in our cities and towns; and
 - by ensuring that steps to recover environmental water are both fair and efficient, so that no group is asked to bear an unreasonable burden in achieving these national goals.

We said that solutions do exist – what is needed is political courage to implement them.

In the following months, under the leadership of the Deputy Prime Minister John Anderson and State Ministers such as Craig Knowles from NSW, a radical new water reform agenda was carved out, culminating last year in COAG signing off on the National Water Initiative and committing \$500 million to restore environmental flows to rivers in the Murray Darling Basin.

This agreement contains some remarkable changes:

- It has agreed to improve the security of water access entitlements, including by clear assignment of risks of reductions in future water availability and by returning overallocated systems to sustainable allocation levels;
- It has agreed to ensure ecosystem health by implementing regimes to protect environmental assets at a whole-of-basin, aquifer or catchment scale;
- It has agreed to ensure water is put to best use by encouraging the expansion of water markets and trading across and between districts and States involving clear rules for trading and robust water accounting arrangements; and
- It has agreed to encourage water conservation in our cities, including better use of stormwater and recycled water.

A key focus of the National Water Initiative will be to implement a robust framework for water access entitlements that encourages investment and maximises the economic value created from water use, while ensuring that there is sufficient water available to maintain healthy rivers and aquifers.

It sets out the key elements for a nationally-compatible system of water access entitlements which include:

- returning overallocated surface and groundwater systems to environmentally sustainable levels of extraction;
- access entitlements defined as open-ended, or perpetual, access to a share of the water resource available for consumption; and the
- identification and assignment of risks between governments and water users.

A framework will also be established to address water use where water is intercepted before entering ground or surface water systems due to changes in land use (for example, large scale plantation forestry, changes in agricultural use, harvesting of surface water flows, revegetation for salinity control et cetera).

In other words, a water title system based on the hydrological cycle.

These reforms are truly remarkable to the extent that when you have your 71st Biennial conference in 2104, one of your speakers may well reflect back on this period as the turning point in our understanding of what it means to live sustainably in Australia.

Later today, Minister Knowles will be introducing into Parliament changes to the NSW Water Act to operationalise many of the National Water Initiative reforms in NSW.

I obviously am not in a position to steel the Minister's thunder, but I can outline some of the core changes that are envisaged.

For irrigators:

- In line with the National Water Initiative, most water licenses will be issued in perpetuity – a profound and fundamental change 200 years in the making;
- Water license holders will have a fixed share – specified as a number of units rather than a volume – of the total volume of water available. This will provide greater asset security especially when gaining finance for investment;

- A central register of water licenses is to be established which will allow public access to ownership details, prices paid for water and other details to allow monitoring of the industry;
- The amendments will give the access licence register the same status as the Real Property Act register; and
- The register will improve the efficiency of trading water and make it easier and cheaper for licence holders to use their water licence as security for a loan if they wish to.

For the environment:

- Water Sharing Plans have been produced setting out how a water source is to be managed and providing savings for the environment;
- The amendments provide for a clearer definition of environmental water: water committed to the environment by rules in water sharing plans, and access licence water that is committed to the environment by conditions. This change opens up opportunities to expand on environmental water in the future through investment;
- The new, locally governed Catchment Management Authorities will assist the Minister in the development of water management plans; acquire and manage adaptive environmental water; monitor water quality; carry out and fund works to conserve water; and establish trust funds to buy water for the environment; and
- The new independent Natural Resources Commission will conduct audits of the water sharing plans in the context of an assessment of progress in the achievement of standards and targets in catchment action plans.

Changes that industry and environment groups have been calling for for years, in a practical package of reforms that will fundamentally change the way we manage water in Australia in the 21st century.

We have a long way to go, but the reforms of the past two years should give us all great confidence in the future as we move from thinking we were conquerors to a society built on the mutually supporting objectives of conserving and growing.

Sustainability has been debated for well over a decade now, not only in Australia, but across the globe. The issues of water, biodiversity and climate change are set to dominate global politics in the 21st century.

The hallmark of this debate internationally has been a lot of hot air and very little tangible actions. We're seeing major global conflict beginning over water resources in Africa and the Middle East, we sit by and watch the world procrastinate over climate change, and the Biodiversity Convention signed in 1990 sits on shelves gathering dust whilst the world's biodiversity disappears before our eyes.

Everyone in this room knows about these issues and the magnitude of the problems they present for future societies. The longer we take to resolve these issues, the more difficult and more costly they become. The sustainability challenges facing planet earth are profound.

In Australia, until very recently the picture was not much better, but it's a very different picture today.

We are now entering a period of our history where we are taking our newly gained knowledge of our uniquely Australian landscape and building a new model of development:

- one where conservation and growth are mutually supporting objectives;
- where sustainability becomes more than just a green agenda - where sustainability becomes a triple bottom line agenda;
- where wealth creation and biodiversity conservation are both seen as progress; and
- where our production systems are being tailored to the natural cycles of Australia's droughts, floods and fire.

This conference I am sure will make yet another significant contribution to this growing understanding of what it means to live profitably and in harmony with Australia.

We have the wealth and we have the knowledge. It's simply a matter of values.

Once we make that choice, anything is possible.

For we are young and free...

ⁱ Wentworth Group of Concerned Scientists (2002): *Blueprint for a Living Continent*, WWF Australia.

ⁱⁱ Wentworth Group of Concerned Scientists (2003): *Blueprint for a National Water Plan*, WWF Australia