

2005 Annual Hawke Lecture

Delivered by
Mr Greg Bourne
CEO, WWF-Australia



A sustainable planet – a future for Australia

Wednesday 9 November 2005

Embargoed until 6.45pm CST Wednesday 9 November – CHECK AGAINST DELIVERY

Order of ceremony

Lecture Introduction:	Mr David Klingberg, Chancellor of the University of South Australia
Speaker introduction:	Professor Denise Bradley, Vice Chancellor of the University of South Australia
Lecturer:	Mr Greg Bourne, CEO, WWF-Australia
Vote of Thanks:	The Hon Bob Hawke AC, former Prime Minister of Australia

Annual Hawke Lecture

The Annual Hawke Lecture is the premier national event on the public calendar of the University of South Australia.

It is delivered under the auspices of the Bob Hawke Prime Ministerial Centre.

The Hawke Centre's international patron is Mr Nelson Mandela and the Centre mounts an active public program consistent with its non-partisan agenda of "strengthening our democracy, valuing our cultural diversity and building our future."

The Hawke Lecturer is a prominent person of national or international standing. Hawke Lecturers have a demonstrated commitment to causes such as human development, social and environmental sustainability, intercultural respect, indigenous rights, and the advancement of the poor and the oppressed.

Drawing upon the interests and the experiences of the Lecturer, the Hawke Lecture challenges Australians and brings significant influence to bear on public opinion, policy and practice.

First delivered in 1998, in recent years it has been broadcast to a national audience by the Australian Broadcasting Commission.

Past lecturers

1998	The Hon Bob Hawke, former Prime Minister of Australia
1999	Sir Zelman Cowen, former Governor General of Australia
2000	Dr Mamphela Ramphele, Managing Director, World Bank
2001	Sir Gustav Nossal, distinguished Australian scientist
2002	Mr Noel Pearson, Aboriginal activist
2003	The Hon Gareth Evans, President of the International Crisis Group
2004	Ms Irene Khan, Secretary General, Amnesty International

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Your Excellency, the Governor Mrs Marjorie Jackson-Nelson, and other Hawke Centre Patrons; Professor O'Donoghue and Sir Eric Neal; the Honourable Mr Bob Hawke; Chancellor Klingberg; Professor Bradley; Centre Chair Dr Basil Hetzel and Director Elizabeth Ho, and my friends from WWF-Australia, distinguished guests, ladies and gentlemen:

Let me begin first by acknowledging the Kurna people, the ancestral owners of this land on which we meet today.

It is a great honour and privilege to be invited to give a lecture named after such a distinguished Australian leader. And it is an honour to do so under the auspices of the Bob Hawke Prime Ministerial Centre at the University of South Australia, which has a truly impressive record for encouraging debate on a wide range of critical issues. It is daunting for me to follow in the footsteps of so many distinguished speakers. Today it is my privilege to speak to you about the quest for the sustainability of our planet and a future for Australia in that quest.

Introduction

Ladies and gentlemen, we have reached a point where every moment we fail to address our ever expanding ecological footprint, we set in train the impossibility for our children and grandchildren to experience the richness of life that we have been so lucky to enjoy.

We could decide to ignore the ever increasing warning signs of human stress upon the planet and go on as business as usual. We could triage the planet and make sure only the wealthy and powerful feel that they are secure.

Or, alternatively, we could take on a monumental shift in the way we go about our business – and believe me it is not 'as usual'. We deliberately go about building resilience in our environment, building resilience in our society and we start a revolution in our economy.

The responsibility that befalls our generation; the card that has been dealt to us, is to turn the corner: to move away from an ethos that has seen us mine the planet to pay for the present, and towards an ethos that focuses on securing a sustainable future.

Two Planets

Last year, WWF, the conservation organisation, showed the world how humans are plundering the planet at a pace that outstrips its long term capacity to support life. Using data gathered by scientists from around the world we found that more than one third of the natural world has been

destroyed by humans over the past three decades. We are now using 20 per cent more natural resources than the world can produce on a sustainable basis.

Based on factors such as a nation's consumption of grain, fish, wood and fresh water along with its emissions of carbon dioxide from industry, agriculture and cars; WWF's *Living Planet Report* provides an ecological 'footprint' for each country by showing how much land is required to support each resident.¹

The 'footprint' of the average Australian is 7.7 ha. The 2004 *Report* shows the world average footprint is 2.2 ha per person while there is only 1.8 hectares of land to provide natural resources for each of the people on the planet. This is worked out by dividing the earth's 11.3 billion hectares of productive land and sea space between its 6.1 billion people.²

What does that mean? If every resident of the planet consumed natural resources at the same rate as the average Australian citizen, by 2050 we would need at least two extra planets like Earth.

I wonder what we should call them.

The writer G.K Chesterton remarked that in the development of civilisation it was as if 'one of the animals went entirely off its head'. He was of course referring to us.

There has been the 10,000 year experiment of settled agricultural life, 7,000 year experimentation with useful things like the wheel and ...with just a blink at the end, we have seen a European style 217 year social experiment on this continent.

Now here we are, still going off our heads, 20 per cent in the red, with populations of marine, terrestrial, and freshwater species down by 40 per cent in the last 30 years; continuing on the same old way as if the future did not matter.

The American scientist Buckminster Fuller's prediction; that the 21st century is when we find out whether the human race is a failed experiment; could not be more true or more frightening.

2050 seems a long way a way in a world very, very preoccupied with the present. It is only 45 years ahead. Looking back 45 years, to when I was 12, growing up in Western Australia, it doesn't seem so far.

1960 was a big year, and for many of us listening right now; it wasn't so long ago. It was the year the birth control pill went on sale, the year of the Rome Summer Olympics and the year Khrushchev pounded his shoe on the table at the UN. 1960 was when the Soviets sent a ship with animals, insects and plants into space.

We must decide whether we believe 45 years ahead is too far away to worry about and whether we continue to strip our earth bare or perhaps be a little smarter and decide to do something about it: decide to continue the human experiment with smarter guidelines – like living within the planet's limits.

I am going to take you on a 40 minute journey which will show you the dire state of the world's environment; show you that we can choose – the future is man made; and that we can seize the opportunity to create a thriving economy, thriving society and a thriving environment. It will seem a little dark for a while, but there is light at the end of the tunnel – the future is in our hands. We can and must create a sustainable Australia.

¹ Loh, J & Wackernagel, M. (eds) (2004) *The Living Planet Report 2004*. Switzerland: World Wide Fund for Nature (WWF)

² Op cit

Our Heavy Footprints

'Europe has its peaks, piercing the sky, but we have the horizon.' So wrote the poet, Mary Gilmore. This one sentence says so much about Australia. This land is endless horizon.

Many minds have pondered what we are and what we are about. Australia was a social experiment, which most thought would fail, so it's worth outlining what contributed to making it a success.

Anthropologist Ghassan Hage argues, 'Migrants are people who hope for certain things that can't be achieved where they are'. 'Hope is not related to an income level', he says. 'It is about the sense of possibility that life can offer. Its enemy is a sense of entrapment not a sense of poverty'. So hope was a factor.³

Historian Geoffrey Blainey says it is difficult to understand Australian history in the last 150 years, and to see its virtues and weak points, without realising the power of a development vision.⁴

Whenever people sing 'Advance Australia Fair' they chant the old goal of economic and social development, 'With golden soil and wealth for toil'; 'Our land abounds in nature's gifts'. 'Nature's gifts' once meant untapped gold mines, fertile plains, sweeping grasslands – and rivers that could be dammed.

For others our strength came from isolation and the ingenuity it took to survive when you knew help wasn't coming or from the 'raw energy that comes with opportunity'.⁵

However there is a darker description, one that talks about Australia, with our cities: 'five teeming sores: draining her like robber-states.'⁶

As we developed our nation, we Australians have not trodden lightly.

Two years ago I wrote what you might call a poem.

Feral pests and imported weeds
Rivers stressed and water needs
Air quality and health in cities
Global warming and climate change
Increasing loss of biodiversity range
Land degradation, soil, salinity
Ecosystem break down, such a pity!

The first letters of each line spell out FRAGILE and indeed we live in a fragile country. Whether we listen to the words of Dorothea Mackeller, Mary Gilmore, Tim Flannery or Hugh McKay or a host of other poets, scientists and commentators, the fragility of our land is plain to see and yet we continue to let it degrade.

³ Hage, G (2002). *Against Parnoid Nationalism: searching for hope in a shrinking society*. Pluto Press

⁴ Blainey, G (2001) *Australia Unlimited*. Boyer Lectures.

⁵ Hazzard, S (1984) *The Coming of Age in Australia*, Boyer Lectures

⁶ Hope, AD (1972) *Australia, Collected Poems 1930-1970*, Sydney: Angus & Robertson

In Western Australia it was recognised back in 1917 by the scientists W.E Wood and John Patterson in their recommendations to the Royal Commission into the Development of the Esperance and Mallee Belt that 30 per cent of the land was at risk of becoming saline if cleared. The response from the Commissioners was, 'We will not let scientific prejudice get in the way of opening up our Mallee lands'. The response from the then Premier, Thomas Mitchell was, 'If the good Lord had provided scientists when Adam and Eve were created, no useful work would have been done.' They were not prepared to listen.⁷

Western Australia had its early clearing and then again its 'million acres a year' period in the 50s and 60s. South Australia and the other states happily cleared on a promise of a bountiful dream. Even in the light of knowledge from the west, they didn't expect the nightmare of soil degradation and salinity that was to come. Prior to May 2003, Queensland had one of the highest rates of land clearing on the planet – an average of 500,000 hectares per year. Environmental costs were catastrophic: species decline, dryland salinity, degradation of river systems and significant greenhouse gas production.⁸

Scientists calculated that land clearing killed more than 100 million birds, mammals and reptiles each year in Queensland. The toll included 8.5 million birds including bellbirds, parrots, robins and flycatchers; 19,000 koalas, 89 million reptiles like geckos, skinks, and frogs and 1.4 million small mammals like dunnarts and native rats.⁹

Thankfully Premier Beattie did listen and stopped the bulldozers, well sort of, illegal landclearing continues apace.

We've had the same illogical approach to water use across Australia. Surface water used annually has increased by 69 per cent (20,300 GL) between 1983–84 to 1996–97. Ground water use has seen an 88 per cent increase during the same period.¹⁰

The impacts of weirs and dams on our water quality and availability cannot be underestimated. Before European settlement an average of 14,300 gegalitres of water flowed to the mouth of the Murray. Today total diversions are around 11,000 gegalitres. The salt loads and toxic algal blooms are an indication that this situation is not sustainable. Here in South Australia the Coorong is under enormous stress and is dying. On water we are only just beginning to listen.¹¹

On climate change, we Australians are not listening. Listen to the echo of the past - 'If the good Lord had provided scientists when Adam and Eve were created, no useful work would have been done.' (*Premier Thomas Mitchell - 1917*) – and listen to the voice of the present - "Until such time as the major polluters of the world - including the United States and China - are made part of the Kyoto regime, it is next to useless and indeed harmful for a country such as Australia to sign up." (*Prime Minister John Howard – 2005*)¹²

We seem to be frozen in the headlights. We seem to believe that all progress, all development, all wealth creation will cease if we acknowledge climate change as a threat. And we have the heaviest carbon footprint per person in the developed world bar none.

It's time to get real. While Australia's ratifying of the Kyoto Protocol would do nothing to decrease emissions in the short term, it would send a powerful leadership signal at home and overseas that Australia was finally ready to move along the required pathways to deep cuts in emissions. We need that leadership signal.

⁷ Morton, S (2005) *The Importance & Place of Climate Research in Australia*, CSIRO Climate Science Meeting.

⁸ H. Cogger, H. Ford, C. Johnson, J. Holman, D. Butler (2003) *Impacts of Land Clearing on Australian Wildlife in Queensland*, Brisbane: WWF-Australia.

⁹ Op cit

¹⁰ National Land and Water Resources Audit (2000) *Australian Water Resources Assessment 2000*. Canberra: National Heritage Trust.

¹¹ Murray Darling Basin Ministerial Council, (2005) *Review of Cap Implementation 2003/04*, Report of the Independent Audit Group.

¹² Morton, S (2005) *The Importance & Place of Climate Research in Australia*, CSIRO Climate Science Meeting.

So on landclearing, water use and climate change, we Australian's cannot hold our heads up high. We have and are still degrading our land – and that is not sustainable.

Much of the world is in a similar state. The *Millennium Ecosystem Assessment Synthesis Report*, published earlier this year found that 60 per cent of the ecosystem services that support life on Earth are being degraded or used unsustainably.¹³

If the earth was a human body we would be booking a bed in a palliative care ward. If 60 per cent of the respiratory, lymphatic, cardiovascular, and nervous systems were this degraded, we'd probably be getting our affairs in order.

Why this Millennium Assessment is worth understanding, is simply this: it links environment and humans in a way that has not been done before. It shows clearly that environmental degradation is no longer just an issue; it is *the* issue for the future.

Human survival and human progress can no longer be considered as separate to protecting the environment. They are the same thing. But we're not listening. It makes a headline for a day. What will it take for us to understand and act?

Perhaps the problem feels too large. Perhaps we are consumed by a feeling of collective impotence. But if we Australians decided to choose one thing to fix, surely you'd think, on the driest inhabited continent on the planet, it would be a national pastime, to savour, or at least save, our limited water.

But no, we guzzle, we quaff, we swill. As you probably know, the tally as it stands (when you add water use in the production of goods and services) is about 1 million litres of freshwater per person each year. So thirsty are we and confident of endless supplies that our lawns and toilets are tended and flushed with the most sparkling of water resources. We gag at the thought of using recycled water.¹⁴

That's us. Australians: the highest water users per capita in the world, living on a narrow strip between the desert and the deep blue sea. Water lovers and water wasters extraordinaire facing a warming climate and a future, most agree that will be marked by conflicts over water. Unfortunately, what we are seeing now is a repeat.

In his book *A Short History of Progress*, Ronald Wright argues that our modern predicament is as old as civilization. Wright shows that humans have demonstrated a historical talent for self-destruction and that today's global civilization may be our last great hurrah. He opens the black boxes: the recorded last moments of fallen societies, to learn how hope and innovation without sensible development leads to extinction.¹⁵

So how does this apply to us?

Let me take you back to another sun-loving people: water lovers and beer-drinkers, inventors of the thong, sheep musterers, wine-makers, irrigators and overly literate legislators. These people were thirsty, too, and confident of their own intelligence and luck. They, also, lived in a lucky country.

¹³ Various (2005) *Millennium Ecosystem Assessment Synthesis Report*. New York: United Nations Environmental Programme.

¹⁴ Archer, J., Hodges, J., and LeHunt, R., (1993) *The Water Efficient Garden*. Sydney: Random House

¹⁵ Wright, R (2005) *A Short History of Progress*, Carroll & Graf Publishers

Wright tells the story about these people, the world's first irrigators, the Sumerians of 3000 BC. For his purposes, they are a perfect example of how you can manufacture your own end by producing an overabundance of innovation and strip bare the very elements that allowed you to initially advance. He calls this type of behaviour a progress trap.

Sumer is now in Iraq. And the irrigated farmlands of Sumer have become the saltpans of Iraq. Half of Iraq's irrigated land is saline – the highest proportion in the world. The desert in which Uruk stands is man-made.

Perhaps Australians are the new Sumerians. The Sumerians invented beer; we invented the fridge and the esky. They invented wine; we invented the wine cask. They invented irrigated farming mosaics; we invented the stump jump plough so we could begin to clear hundreds of thousands of acres for cropland, grazing land and irrigated agriculture. It was also an Australian who invented the 'black box'; the device that records the journey and the last few moments before disaster.

When asked what built Australia, this successful social experiment, we can probably say it was knowledge of its vast spaces and a development vision driven by hope, action and ingenuity. When asked how the experiment is faring now, we must be honest and balanced. The development of Australia's enormous wealth has hugely benefited generations and especially those now in our wonderful cities. However when we look at how badly we have degraded our landscapes – you realise that we have mined the past to pay for the present – leaving not much for the future.

How heavily we tread

We Australians have trodden so heavily. Our footprints are all over our country and they are deep and scarring. We have to learn to tread more lightly. We need to walk barefooted and feel the blades of grass springing back as we walk along – feel the resilience of the land. We have to leave behind the crushing, grinding tread that turns the land to dust – the white dust of progress.

Dead ends – the Carcass and the Zoo – no choice but change

The way we are going is wrong! We are heading to a dead end, a progress trap.

Here are two ways I believe that our future could play out: one is destructive, and one is impoverished. My shorthand for them is the Carcass and the Zoo. There is a third, a better way, but more of that later.

The Carcass

It has been said that what distinguishes humans from animals is the ability to foresee their own death – and forestall it. In the next few years, the critical decision making years, we may get to find out if this is true.

The tragedy in New Orleans caused by Hurricane Katrina showed us how fast a great city can go down. There is an old epithet that we are 'only ever three meals from revolution'. New Orleans proved it in 72 hours.

Every city is potentially a house of cards. The more complex the society – the numbers of people, communications links, income sources, resource needs, trade networks, polarities between the haves and the have nots – the more likely societal breakdown is to occur when put under great environmental stress. As we say in football, the bigger they are – the harder they fall.

In his book *Collapse – How societies choose to fail or survive*; Jared Diamond, scientist, environmental historian, thinker and writer, identifies five factors that contribute to collapse of civilisations. They are: climate change, hostile neighbours, changing trade partners (that is,

alternative sources of essential goods), environmental problems, and, finally, a society's response to its environmental problems.¹⁶

The first four may or may not prove significant in each society's demise, Diamond says, but the fifth always does.

The point, of course, is that a society's response to environmental problems is completely within its control, which is not always true of the other factors. In other words, a society can 'choose to fail'. So what might be coming our way should we choose to fail?

As we continue on in this age of destructive creation, we must remember that environmental breakdown triggers social breakdown.

The climate is changing, the planet is warming, and we are seeing the effects. We now know, for example, that the Himalayan glaciers which feed the Ganges, the Brahmaputra, the Mekong, the Yangtze and the other great Asian rivers are likely to disappear within 40 years due to the warming of the planet.

If these rivers dry up during the irrigation season, then the rice production which currently feeds over one third of humanity collapses and the world goes into net food deficit.

Then we must look at those who will be affected by rising sea levels and the world's most spectacular storms. Oxford University Professor Norman Myers this year looked at the most accurate weather monitoring and predictions to deduce who would be the most affected by small movements in global warming.

He looked at all the obvious places – coastal China, India, Bangladesh, the tiny island states of the Pacific and Indian oceans, the Nile delta, Mozambique, and so on – and predicted that by 2050 it was entirely possible that 150 to 200 million people could be environmental refugees forced from their homes by rising waters. That's more than the number of political refugees set adrift in the last century – and those refugees were not always welcomed where they tried to land.

We saw on television the images from New Orleans and the outright chaos of bussing 15,000 people from one football stadium to another in the richest nation on earth. Try to imagine that 10,000 times over.

It's pretty heavy but even if we take a conservative view, it is still reasonable to assume that if we continue as individuals, as companies, as nations; with the 'business-as-usual' approach, hoping climate change is not happening, we have troubling times ahead – and there's no reason to believe we could cope.

Deeply frustrated, former president of the World Bank, Australian James Wolfensohn said: 'If someone came here from Mars and looked at the way we run the place, he'd get back in his spaceship and go back to Mars and say, You don't have to worry about them; they are going to destroy themselves'.¹⁷

The future world I have just described could see humanity tearing itself apart like wolves around a carcass as the strong exploit the weak or weakening. It does not bear thinking about other than to stimulate actions that take us away from potential societal breakdown.

¹⁶ Diamond, J (2004) *Collapse – How societies choose to fail or survive*. New York: Viking Adult

¹⁷ Dimpleby, J. *The Coming War* October 31, 2004, The Guardian.

The Zoo

The Zoo is a scenario in which we triage only the most appealing and economically important elements of our natural world and leave the rest out, literally, to dry. In this scenario the future is man-made.

The Great Barrier Reef has been called the largest living organism known. In 2003, WWF released a report from one of the world's best experts on coral reefs, Ove Hoegh Guldberg, who found after years of research that by 2050, with current sea temperature predictions, 95 per cent of the Great Barrier Reef will be regularly bleached with serious consequences to biodiversity.¹⁸

Fortunately, some quick thinkers realised that some of the \$8 billion annually that the tourism industry stood to lose by 2020 could be at least salvaged with a theme park, a coral extravaganza for those who can afford the ticket entrance.

Then, in the not to distant future, down at the 'Palazzo Versace Wild Animal Hospice' they'll be looking after the cute ones. The logo isn't for 'a living planet', it's for 'a better looking planet'. Colourful plumes, big wet eyes, fluffiness and appealing personalities will get you a pass into this ersatz Noah's Ark.

We could, of course, consider ourselves lucky with the thousands of hours of footage of wildlife and wild places that will be a digital reminder of what we have lost.

With the help of theme parks, plastic and papier-mâché, plush animals, cloning, digital devices and flickering light we can still show our grandchildren what it was like back in the good old days.

It will be harder to recreate the places we went to for our holidays, the fresh running water we took for granted and the clean food we ate.

At a museum in western Tasmania, there is a display featuring a life size model of the extinct Tasmanian Tiger under which there is a sign saying the thylacine is now 'fully protected' – which is lucky for those who want to clone the tiger.¹⁹

This second Zoo scenario is the middle way, the average, the mean. But in this case, the mean is just that, mean, nasty and stupid. Surely if we could choose – wouldn't we choose a better way?

There really is no choice but to change

The world faces not a preordained future, but a choice. The choice is between mental models.

The first model says we have no limits. There is no use planning for the future because everyone who has the money and power right now must be fully fed, fully entertained, and fully free to consume and compete – right now. The future could see humanity tearing itself apart when limits are reached.

The second model admits that the limits are real; but with a little effort we could preserve some of the more entertaining aspects of the natural world and man-make the rest that can't grow naturally. This will mean a bit of pain in the long run, and some of us won't survive, but that's mostly people and animals that don't have much economic value anyway. If we choose to believe that, we will get what we deserve – an impoverished world.

¹⁸ Hoegh-Guldberg, O & Hoegh-Guldberg, H (2004) *The Implications of Climate Change for Australia's Great Barrier Reef*. Sydney: WWF-Australia

¹⁹ *Scientists Renew Efforts to Clone Tasmanian Tiger* October 12, 2005. ABC News Online

There is a third model – a better way. It also recognises that we have reached our limits, but it is founded on the belief that the natural world and the human species that rely on it are worth saving and that only by unleashing an enormous human will to survive, but to survive sustainably, will we make it to the end of the century relatively intact.

The fundamental question here, once you know what we are facing, is: is it worth it? Are you worth it, is the next generation worth it, and is it worth giving other species a fighting chance? I believe it is.

We must value the future – build resilience – start a revolution

I wouldn't have come here tonight unless I thought there was a way forward. I would be on a boat, somewhere warm, with a bottle of Coopers having a barbecue off the stern. But right now there is work to do. And there is already work being done. There are tens of thousands of Australians who are making their own contribution to a sustainable Australia, tens of thousands just getting after it.

They value the future, they value our wonderful biodiversity and they set about protecting it. There are business folk who are just getting their heads down, creating new products and services, quietly achieving the impossible every day. I salute you all.

We need our politicians to have a vision of 'Sustainable Australia', a vision 50 years out at least: one which is non party political, one which empowers and excites the electorate.

We need our business leaders to have a vision of 'Sustainable Australia'. We need them to seize the opportunities that come from doing business in a sustainable manner.

We need our community and religious leaders to have a vision of 'Sustainable Australia'. We need them to understand the importance of the environment upon which all life and human progress depends.

Each one of us needs to have a vision of a sustainable Australia, one which we have in common and one which we demand of our leaders.

Australia was an experiment, almost a Darwinian one, where a place so far away meant only the really hopeful and hard working thrived. It can again be so, a new innovative frontier, pushing at the boundaries of the possible and taking up the challenge of the perceived impossible. But this time we should redirect that hope and hard work towards a sensible, sustainable development vision, and engender accountability for our contributions and solutions. In so doing we can change our culture to suit these difficult times. That culture needs new stories, new language, and a way of seeing the connection between rural areas, natural icons and our own sustainable progress.

We do need to take the precautionary principle and set our economic limits within natural ones. And for those who confuse the precautionary principle with timidity or lack of entrepreneurial spirit I would remind them of an old sailing adage: 'There are old navigators and there are bold navigators – but there are no old, bold navigators'. In long distance passage planning, Plan B should be better than Plan A.

We must devise a strategy to get us where we need to be. The first stage of that strategy does involve buying time; it means picking the low-hanging fruit of a more productive, more efficient use of our current resources and deem it societally and economically unacceptable to waste them.

We need to devise a way of seeing how we are doing every day, whether it is smart meters in every home showing us our water and energy use, or national scoreboards indicating how far we

are down the path to sustainability, or efforts by every Australian to go past the urban boundary and understand our rural connection.

While we get our focus right, we must execute our strategy with structures, systems and processes, which enable everybody to translate what matters most into their everyday life and work. There must be clarity, commitment, and accountability.

We need to hold our institutions to account so that they are restorative of human and natural capital. We must pursue what I term 'sensible development'. Sensible in that at each development decision we seek net social benefit, net environmental benefit as well as net economic benefit. It's just the case for common sense.

We'll also need to redesign many aspects of our economy to take into account that we live in a real world, a biophysical world that can both bountifully support us or, if we push the limits too far, shrug us off.

We need a culture that values the future.

Resilience

For future generations we must build resilience; resilience in our ecosystems so that when we take off the crushing pressure, bounce back is possible. We need to build resilience so that when the unexpected wind of change comes along, the ecosystems can bend like the reed rather than break like the oak.

I have in my mind a picture: a picture of a spray paint can, travelling through space. It was the picture on the front cover of the Ben Elton Novel *Stark*. Some of you will remember how he describes how cockroaches, once trodden on and squashed flat, seem to have a magical way of putting themselves back together, leg by leg, bit by bit until they once again scurry away under the fridge. Now that's resilience – the ability to bounce back when seemingly crushed!²⁰

We also need to build resilience into our society, so that when our 'Hurricane Katrina' arrives, our society not only copes but pulls together, becomes stronger.

And we need to build resilience in our economy for we are but a cork on the tempestuous ocean of the world's economy. We need that perspective.

It is said by some people that the environmental movement kicked into being when the first pictures of the earth from the moon came back. For the first time people could see our planet in its entirety. Just in these last few months, via the internet, we are all able to view photographs from space down to our own backyard.

I urge you to download a version of Google Earth or a similar program and play with it. See the planet in its entirety, see where Australia fits, see how vast our continent is, and see the farms that sustain us and the rivers that give us life. See our urban centres hugging the coast, drill down further to your own home. See how you are connected.

David Suzuki said, 'In a world where everything is connected to everything else, any action has repercussions and so responsibility accompanies every deliberate act'.²¹

I believe that the more we see and connect the better we will act.

²⁰ Elton, B (1989) *Stark*. New York: Time Warner Books

²¹ Suzuki, D & McConnell, A (2002) *The Sacred Balance: Rediscovering Our Place in Nature*. Mountaineers Books

To create a sustainable Australia in which people live in harmony with nature we need every Australian to share the vision. This quest is not just for politicians, it is an obligation for all, an obligation for you and me, mothers and fathers, children, business folk, the community, everyone – to do whatever we can.

A future for Australia

Australia and Australians need to become pathfinders. Our role should be to find the way – not timidly follow. We have a nation the size of a continent with only 20 million people; surely we can learn to live sustainably? If we can't, who can? We owe it to ourselves and the world: to try, succeed, learn; create new products, services, markets and ideas; and spread them round the world for the benefit of others - and for the export income. We need to be at the forefront of a new 'industrial revolution'; a 'sustainability revolution'.

I am reminded that, early on in the Industrial Revolution, when the first steam locomotive contraptions were travelling the roads, there was a requirement for a man to walk in front waving a red flag. With frustration I marvel at how many Australian companies are waving a red flag and how few are building the future. We must not only get on board 'The Flying Sustainability' train, we should be driving it. It's left the station and there are plenty of other countries and companies that have a ticket.

Take Toyota for example: looking 50 years ahead they saw that we would eventually go into a carbon constrained world. They invested in the future and invested in hybrid technology. Their choice of hybrids over hydrogen fuel cell cars was not luck but commercial judgement. They now dominate what is already becoming one of the most important transport innovations in decades. Where are we at home? Well, nowhere in the passenger car sustainability stakes.

We should as a nation, be beginning to think about the environment and sustainability, in the same way as we think about large capital projects. Whether it is government or business, we need to be thinking 50 years ahead. We need to be thinking of the future cash requirements and the generated beneficial products and services together with their cash inflows.

Long term objectives need to be set, together with real, measurable targets. We must focus on outcomes not outputs. The business of government and the business of commerce must be aligned to achieve those targets and they must be reported on. And if 51 per cent of us who vote passionately want those targets achieved, achieved they will be.

Sector by sector we need to develop pathways to a sustainable future. Recently, CSIRO and the University of Sydney published their seminal work *Balancing Act – A triple bottom line analysis of the Australian economy*. Eminent scientist Barney Foran and his co-authors Manfred Lenzen and Christopher Dey have looked at and analysed all 135 sectors of the Australian economy to find their key environmental, social and financial indicators. We at last have a baseline from which to work.²²

Each and every sector needs to look into its mirror and see whether it can stand up and be counted as a sector which is contributing to a sustainable future, here and in the world. Are you proud of what you are doing? Are you proud of what you are leaving behind? These two questions need to be asked by all children of all parents. These two questions should be asked by all shareholders of all boards. These two questions should be asked by all of us of ourselves and of our leaders.

With climate change we know that we must reduce our emissions dramatically. We need to reduce our CO₂ emissions by between 60 per cent and 80 per cent by 2050 and yet we export and burn

²² B. Foran, M. Lenzen C. Dey (2005) *Balancing Act – A triple bottom line analysis of the Australian economy*. CSIRO Technical Report

coal at home it as if there were no limits. Australians are the world's largest exporter of coal. To be responsible we need to be a main supplier of clean coal technology. We need to demonstrate at home that we can be clean and sustainable. This should not be seen as a burden but as an opportunity: not only a commercial opportunity but also an opportunity to show leadership in finding the pathways to dramatically reduce emissions from coal at home and abroad.

Australians are also the world's second largest exporters of uranium into a growing world demand. Australia seems destined to continue mining and exporting but we should not be mining in fragile and endangered ecosystems. The Australian public needs to know that the uranium is being used for peaceful purposes, that the waste products are being stored safely and that proliferation cannot occur. We should demand that of our leaders and of the mining companies; it is not sufficient to just cross our fingers and hope. But we Australians should not confuse exporting a mineral with having nuclear power plants at home. We do not need them. We are a nation the size of a continent. We have more renewable resources per person than any other nation on earth. More sunlight, more wind, more wave and tidal power, more hot rocks and plenty of ingenuity. We just need the will and the encouragement.

We have great innovators in Australia; we still are leaders in solar photovoltaics, but much of the technology goes overseas to where the market demand has been stimulated by governments, regulators and companies who all see a big future in the renewables industries. We should be driving this industry. The aim of the stimulation of these industries by other countries is not about altruism, it's about building market domination, and positioning for a sustainable future.

The future is extraordinarily exciting for those who go out and grab it. General Electric Company Chairman and CEO Jeff Immelt, for example, has just recently announced that they are moving in a major way into innovative industrial technologies aimed at the sustainable future. The initiative is called 'ecomagination'. Immelt intends to double revenues from US\$10 billion to US\$20 billion by 2010. Clearly there are huge opportunities for those who break the chains in their minds that shackle them to the past and who go out and seize the future.²³

Let us think differently. Let's think markets. Let's test innovative products and ideas at home. We could be the world's biggest focus group on sustainability.

There are 20 million people here, one third of one per cent of the world's population; it's the perfect place to start a very lucrative revolution towards sustainable living and sustainable wealth creation.

The opportunity lies in creating new markets, resolving age-old business problems, improving public understanding and strengthening sustainable Australian brands worldwide. This means melding the best ideas from business, governments and non government organisations.

A Sustainability Revolution

Let's start a revolution – a sustainability revolution. I believe all sectors of the Australian economy and all communities have a contribution to make and a tremendous benefit to receive. Let's seize the future. Australia should lead the world on the pathway to sustainable development rather than have the world wonder why we didn't.

Summary

So, here we are in 2005. G.K Chesterton says we're unique, the animal 'going off its head'. It took five million years to get to this point.

Footprint

²³ UN Environment Programme (2005) *The Millennium Ecosystem Assessment Synthesis Report*, New York.

Globally, we have reached a point where every moment we fail to address our ever expanding ecological footprint, we set in train the impossibility for our children and grandchildren to experience the richness of life that we have been so lucky to enjoy.

In the last 40 years, humanity's footprint on this planet has increased two and a half times. We're now exceeding Earth's biological capacity by 20 per cent. We are already living unsustainably – we are already in the red.

By assessing the health of the Earth's life-support systems today we can start to paint a picture of what to expect in the future. Fresh water resources are likely to become scarcer, rising temperatures and sea levels are likely to cause waves of extinctions and the ecosystems that support life on this planet will become ever more stressed. It is a dark picture of the future and one that is highly likely. Just hoping that it will all go away, does not help.

Hope, action and ingenuity saw us develop large cities and big tracts of land, and hope, action and ingenuity gave rise to wealth for those in the present.

But hope by itself means we stick to the same old ways and hold fast to the same old laws as long as the results are good in the present. Hope is what we have when we don't like the look of the clouds on the horizon – we hope the forecast is wrong – we hope there is a silver lining. Hope is what makes us strive for opportunity but hope is also our excuse for inaction.

This is not a time for simply hoping. This is a time for action. We have to choose.

Dead ends and choice

We have a choice whether we decide to be three meals away from revolution, whether we court a potentially brutal way of life in which tens of millions of people are displaced, great cities collapse, and waves of extinction wipe out whole species. We can perfect the art of short-sighted decision making if we want this model.

We could triage the planet and make sure only the wealthy and powerful feel that they are secure. We could build theme parks and zoos and capture everything on digital images so that those who are nostalgic can remember what we have lost.

Value and seize the future

Or, alternatively, we have just enough time to take on a monumental shift in the way we go about our business – and believe me it is not 'as usual'. We deliberately go about building resilience in our environment, building resilience in our society and we start a revolution in our economy.

So to the politicians I would say: we need you to have a vision of 'Sustainable Australia', a vision 50 years out at least, one which is non party political, one which empowers and excites the electorate.

To our prime minister, John Howard, will it be you or a subsequent prime minister who gives leadership on sustainability to the Australian people? We need it now.

To the business leaders; David Morgan, Chip Goodyear, Janet Holmes à Court, John McFarlane, Catherine Livingstone, James Packer, David Gonski, Mike Hawker, Margaret Jackson and Michael Chaney; we need you also to have a vision of 'Sustainable Australia'. We need you to seize the opportunities that come from doing business in a sustainable manner. We need you to plan and invest in 'sensible development' – creating net social benefit, net environmental benefit, even as you legitimately pursue net economic benefit.

You need also to speak out, much more loudly, lead your colleagues and participate in building a sustainable future for our country.

Each one of us needs to have a vision of a sustainable Australia, one which we have in common and one which we demand of our leaders. We have in our choices the power to change. Each and every one of us has a pathfinder within. Create your own vision of a sustainable Australia and with hope, action and ingenuity you will create the future.

The responsibility that befalls our generation; the card that has been dealt to us, is to turn the corner: to move away from an ethos that has seen us mine the planet to pay for the present, and towards an ethos that focuses on securing a sustainable future allowing humans to live in harmony with nature.

As a nation we have done this before. We have forged opportunities out of adversity and used our innovation and drive to build a uniquely Australian way of life. The new era we must now create together is a sustainable one, one in which we have a thriving economy, thriving society and thriving environment. This sustainable way of life may be our most valuable export to the rest of the world.

As you leave here tonight, I want you to be angry and excited but above all I want you to lead through your own actions and be demanding of political and business leadership.

Thank you

Tread lightly on the earth.

Build resilience in nature.

Start a sustainability revolution.