

Making Conservation Relevant in a Crowded World

Peter Cochrane



Eighteenth Romeo Lahey Memorial Lecture

National Parks Association of Queensland

15 March 2017

President's welcome

Welcome to the National Parks Association of Queensland's Romeo Lahey Lecture 2017.

I would like to extend a special welcome to our invited guests: Ann Neale, Romeo Lahey's daughter; David Drake and family, grandson and great grandson of Romeo; Tamara O'Shea, Director-General of DNPSR; and guest speaker, Peter Cochrane.

I would also like to thank our sponsors for this event – the Griffith School of Environment.

This is the 18th lecture in honour of Romeo Lahey. Romeo was one of the founding members of the Association, the first president (serving from 1930 to 1961), and a leading figure in the early days of conservation in Queensland.

In 1908, when only three national parks existed in Queensland (Barron Falls, Witches Falls, and Bunya Mountains), Romeo joined Robert Collins in advocating for the creation of Lamington National Park.

This was fortunate, as sadly Robert died in 1913, before seeing his dream of a national park realised. Romeo advocated for a much larger reserve for Lamington than had previously been proposed; using the parks and reserves near Sydney and in the Blue Mountains as examples. Romeo had an innate sense of the power of education and lobbying – giving lectures in nearby towns, door knocking, organising petitions, and lobbying local councils and State Government Ministers.

Typical of our early conservationists, Romeo's passion arose from his own experiences in the bush; and whilst stressing the value of the land for nature conservation, he also touted its value for health and recreation. He knew the importance of connecting people with nature (long before it become a trendy term).

Setting the scene for the next few decades for NPAQ, Romeo also undertook intensive field trips, to support the proposal for the national park.

The power of perseverance paid off, when in 1915 Lamington National Park was declared. Being a keen bushwalker, Romeo then played an instrumental part in pioneering standards for a walking track system.

Fast track to 1930, a rather momentous year – the planet Pluto was discovered, the Mickey Mouse comic strip made its first appearance, Mahatma Gandhi broke the Salt laws of British India by making salt by the sea, Amy Johnson became the first woman to fly solo from England to Australia, the Great Depression commenced, and on the 15th April, the National Parks Association of Queensland (NPAQ) was formed. Aside from Lahey, the initial Committee included other famous names such as Goddard, Groom and O'Reilly. At the time, Romeo stated that there was “no body of public opinion....organised to combat the influences which were operating against the best interests of National Parks”.

With Romeo at the helm, NPAQ became the driving force behind the establishment of new national parks in Queensland for several decades.

NPAQ will soon turn 87 years. Although there have been significant changes in this time – there are now over 270 national parks and 220 conservation parks, and 5 World Heritage Areas in QLD, a plethora of conservation organisations, and a State Government that undertakes the ground work that NPAQ once did; NPAQ has stayed true to the vision and mission of the founders. Building on the passion, perseverance and hard work of Romeo Lahey and the other founders, NPAQ has retained intact a vision that was created in 1930 – that of connecting and protecting.

– Michelle Prior, NPAQ President

Romeo Lahey

The Memorial Lecture honours the principal founder of the National Parks Association of Queensland - Romeo Watkins Lahey.

Born into a Canungra timber family with sawmilling interests, he is remembered as a dedicated conservationist who succeeded in having the rainforests of Lamington Plateau and surrounds declared as a National Park in 1915.

He saw that a visible, knowledgeable public involvement in the National Park movement was essential, and with others founded the National Parks Association in 1930.

He remained President for over 30 years, and was instrumental in convincing the Queensland Government to declare many of the National Parks gazetted up to the 1970s.

Peter Cochrane

Peter Cochrane represents Oceania on the International Union for Conservation of Nature (IUCN) Governing Council, sits on the Steering Group of the Protected Area Learning and Research, and was Director of National Parks and Head of Parks Australia for over a decade. He has over twenty years' experience in senior executive leadership and governance roles in the public and private sectors.

He consults on environment and sustainability issues, and is currently an adviser to the national State of the Environment Report 2016. He is also a Director of Ecotourism Australia, the Blue Mountains World Heritage Institute and Tangaroa Blue Foundation.

Making conservation relevant in a crowded world

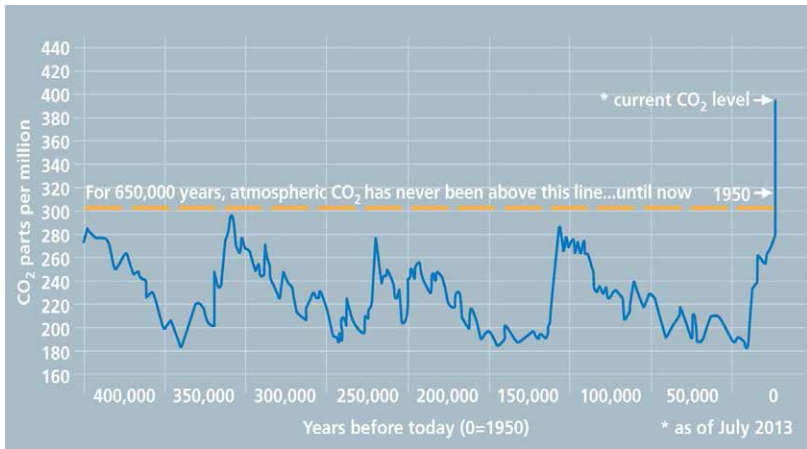
I pay my respects to the traditional owners of the land on which we meet and their elders past and present. The richness and depth of traditional knowledge and understanding of our country that has been handed down from generation to generation is extraordinary and we are fortunate indeed when it is shared, and used to help inform how this wonderful country is managed.

I also pay my respects to Romeo Lahey, his father and other passionate visionaries who saw the need well over a hundred years ago to permanently protect Queensland's spectacular natural assets, and who persisted until their goals were met. I am delighted that his family is represented here tonight by his daughter, Ann Neale and by his grandson David Drake.

I thank the National Parks Association of Queensland (NPAQ) for the invitation to give this talk.

We are living in a time of massive global change. I suspect someone has said that in at least every generation for the last couple of centuries, but the scale, pace and implications of the change swirling around us now are without precedent.

Climate change, technological change and disruption, our capacity to modify our environment, and ourselves – through robotics, medical and life sciences, and artificial intelligence seem to be advancing (if that's the right word) at breakneck speed.



We live in a world that is increasingly connected – at least to information, and other humans, while becoming increasingly disconnected from our natural world.

While the industrial revolution restructured economies and work particularly by replacing physical work with machines, the digital revolution, with automation, artificial intelligence, big data and analytics, is rapidly displacing mental work.

The impacts on employment and income, in societies with already pronounced social inequalities, ageing populations, massive waves of refugees, and migration and disruption from climate change, are likely to result in profound social and economic adjustments, and further disconnection of people with nature and our natural world.

It's not only a crowded world of people, but also of ideas, diversity and complexity of choices, conflicting priorities, expanding cities, contracting space and growing congestion.

It is also increasingly uncertain even for those with choices, with accelerating change and societies that seem increasingly intolerant of leaders and political parties that fail to acknowledge and address these fundamental drivers and their impacts, and the rising social inequality that seems to be a feature of so many of our societies.

So what hope is there for conservation with all these issues and concerns competing for public attention and investment?

Climate change gets the most focus in the media and in what passes for political discourse on environmental issues.

But as we know, climate change is only part of the story of change in our natural world. Specific and compounding factors include: land clearing and degradation; air, water and land pollution; invasive species; habitat fragmentation and loss of ecological connectivity.

These are also all aspects of the huge legacy and momentum of change in

our natural world, coming from the last two centuries of misunderstanding and mismanaging this country.

We still don't deal with these issues and this legacy effectively enough (or at all in some cases), despite the evidence and the science.

Yes there are some encouraging signs that come when there is a broad consensus on the problem and the solution – global action to repair the ozone layer, addressing the cause and impact of salinisation in the Murray Darling Basin, recovery of whale populations, and more intelligent and careful use of water resources.

But the pressures remain; they are intensifying and often add to those from climate change, and further exacerbating their impact on the natural world.

The signals are now hard to miss – the Great Barrier Reef (GBR) being the classic canary in the coal mine. But the disappearing kelp forests of Tasmania, the subtropical fish species now found off the east coast of Tasmania, plummeting populations of birds,

reptiles, amphibians, invertebrates, dieback of mangroves and woodlands, plastics in our oceans and permeating our seafood, not to mention sea birds, all point to massive changes ahead, and the scale of the issues we face, and that we must address.

This is not, however, a time for pessimism. It is a call to action.

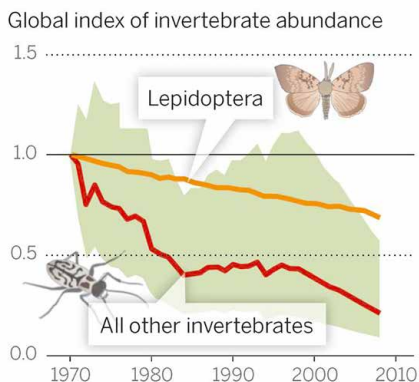
Let me divert for a moment to the national State of the Environment Report 2016 (SoE 2016) that was released last week.

I played a small but interesting role (at least for me), not in generating its content or assisting with its production, but in finding out who actually read it, what they used it for, and what would make such a report more influential and useful to more people.

Unsurprisingly, a core value of the report is its credibility and authoritativeness. This comes from the independent expert lead authors, who drew on over 500 scientists and experts to write the nine thematic reports that are the foundation of the State of the Environment Report 2016. These reports, and the overview report that was tabled in Parliament, were peer reviewed and fact checked.

Some of you may have read parts of the report. I would be surprised if any of you have read it all, as in total it exceeds 1,000 pages.

The digital platform developed for the report is a very significant innovation that enables readers to dip and delve into the report rather than wade through it, to find and download the underlying data sets, and to manipulate and



interact with the maps and graphs. I encourage you to take a look.

So to some key findings and messages from SoE 2016, focusing on three of the report's nine themes.

The same two drivers identified in the 2011 State of the Environment Report (SoE 2011) remain:

- population growth and demographic change; and
- economic activity and the use of environmental resources.

Our 2016 population of 24 million, is forecast to grow to an increasingly urbanized and coastal population of nearly 40 million by 2055.

The main pressures facing the Australian environment in 2016 are the same as 2011:

- climate change, found as increasingly important;
- land-use change, habitat fragmentation and degradation; and
- invasive species – seen as a potent, persistent and widespread threat.

The 2016 report drew particular attention to cumulative pressures, where the impact of one pressure exacerbates the impact of another.

Unsurprising to you here, pressures on biodiversity are increasing, and many species are in accelerating decline.

A number of policy initiatives for threatened species recovery signal a recognition of the importance of halting declines, but a lack of long-term data and monitoring is a major impediment to effective biodiversity

conservation. As a consequence, it is not possible to assess the overall long-term effectiveness of many of our investments in biodiversity management, or our progress against national targets.

Rapid improvements in technology are likely to lead to significant improvements in our understanding of Australia's species and genetic diversity.

For our coasts, the report describes mixed results – environmental condition is largely good in the north-west and far north east, but poor in the east, south-east and south-west of Australia.

Unsurprisingly, poor condition is associated with our major population centres. The condition of some coastal species and communities is deteriorating, although some species are stable or improving because of specific protection and recovery measures.

Coastal waterways however, are threatened by new classes of pollutants, particularly microplastics and nanoparticles, with a widespread and insidious impact on wildlife and, most likely, human health.

In the marine environment the news is better. Improved single sector management and new regulations have reduced some historical pressures – improvements in fisheries management were mentioned, along with, more controversially, oil and gas exploration and production.

Most marine habitats, communities and species groups are in good condition overall, although individual species and communities are of concern.

So there is some good news.

There has been significant improvement in data and knowledge, in part through increased citizen science. Technology is revolutionising how we access and use data. Aspects of our environment are improving, with communities, landholders and individuals playing increasingly vital roles.

But broadly speaking, in the areas that we use intensively – in and around cities, our familiar and much loved coasts; and our biodiversity across the continent – it's not good. Climate change and its impacts permeate the report.

The report found that our effectiveness in reducing the impacts of the key drivers and pressures is constrained by:

- a lack of an overarching national policy or vision;
- an absence of specific action programs or policy to preserve and restore our natural capital;
- weak laws and inconsistent policies across levels of government;
- inefficient, inconsistent and lack of collaboration in planning and decision-making across levels of government and the private sector; and
- insufficient resources.

The report concluded that the outlook for the Australian environment depends on:

- effectively addressing the complex mix of drivers, pressures and risks;
- decoupling economic growth from environmental harm;

- mitigating and adapting to climate change;
- recognising the importance and value of ecosystem services to the economy and society;
- leadership and action across all levels of government, business and the community; and
- a suite of stronger more comprehensive and cohesive policies to protect and maintain natural capital and improve management effectiveness.

The SoE report authors saw opportunities to improve environmental information, data, analysis and sharing across jurisdictions, across sectors and between government, the private sector and civil society.

There is the opportunity (dare I say imperative) for a national policy with a clear vision for the protection and sustainable management of Australia's environment. There must be a focus on the key pressures on the environment and their cumulative effects. A coordinated nationwide approach to many of these, such as marine debris and microplastics needs to be developed.

That, very briefly, is the state of the Australian environment 2016.

Sadly, conservation runs a distant sixth or seventh in the contest for public attention where unemployment, healthcare, the economy, national security, food security, water security, personal security, crime and sport dominate the news and the public discourse.

Of course, each of these usually has

a negative construction, appealing to and feeding our fears, rather than our positive values that give us our sense of community, public spiritedness and willingness to help others.

Most, if not all, of you here tonight are ardent conservationists who understand the plight we are in, and I suspect all of you are doing what you can to tackle many of these issues at local, state and/or national levels.

You are values driven. It's a positive driver for action, even if it arises from concern about the future and what is disappearing from our planet.

But to make a real and sustained difference, conservation must have a much wider constituency than conservationists like yourselves.

Conservation must be a key part of the national conversation about our future, and it must be a positive values-driven agenda, not one based on fear and pessimism.

It must therefore be relevant in and to our crowded world.

It needs a voice that carries far beyond conserving our natural world simply because it deserves to exist, because it has a right to exist, or because we are only one species in an extraordinary diversity of living things that share this planet with us.

These are humble, respectful and worthy beliefs, and if they are more widely shared (about which I have my doubts) they are not sufficiently influential to effect the necessary changes in our economies, societies and lifestyles.

The arguments for conserving our natural world must resonate loudly and widely across and through our economy and society. Given our dominant governing paradigm is essentially economic, our messages must especially resonate in economic language. In other words our societies must more explicitly value nature.

This does not necessarily mean putting a price on nature, but it may, and in fact should, help estimate the cost of its loss.

So - making conservation relevant in a crowded world.

I want to run through and discuss seven approaches and tools for valuing nature that are currently in various stages of development and use:

- the visitor economy;
- ecosystem services;
- natural capital;
- environmental economic accounts;
- environment profit & loss accounts;
- carbon/biodiversity credits; and
- health and well-being.

Many of you will be familiar with some if not all of these. We need all of them, and more, in our toolbox if we are going to have a reasonable chance of improving the outlook for Australia's environment.

We can debate their relevance, utility and risks of their use, but we need all the available tools to make the case for protecting and conserving what is left, and to recover as much as possible of our natural world that is disappearing before our eyes.

I am going to concentrate most on the first and last of this list – the visitor economy and health.

Visitor economy

In Australia, similar to a number of other countries (e.g. New Zealand), the visitor economy is significant for a variety of reasons - most notably it's a growing part of national economies. In Australia it has grown from 11% of GDP three years ago to 14.5% last year.

Tourism employs over half a million people, many in regional Australia. Partly because of this, tourism is now much more front of mind for politicians. Apart from generating employment and national income, tourism – especially nature-based tourism – is a driver of regional dispersal, as visitors want to explore and experience the enormous diversity that Australia offers.

Moreover:

- nature is a key motivator to travel to and within Australia;
- 69% international visitors participate in a 'nature-based activity';
- these visitors spend more and stay longer; and
- they spent A\$49 billion in 2014-15.

Much of the marketing of Australia and our tourism products has a natural setting. Pretty obvious really – a hotel room or a restaurant could be anywhere, but an outdoor scene with a kangaroo, koala, wombat or a Tassie devil clearly identifies the product as Australian.

I am a director of Ecotourism Australia – the member-based organisation for those working in ecotourism, as

operators, owners, guides, planners, consultants, etc. We were 25 years old last year – the longest running organisation of its type in the world and last year we celebrated twenty years of running a national eco-certification program for our members, also a world first.

One of Ecotourism Australia's core values is protecting the natural assets, including national parks, that the industry relies on.

A clear policy gap that we are currently working on, in collaboration with related bodies such as the Australia Regional Tourism Network, the Tourism and Transport Forum, Austrade and Tourism Australia, is a potential nature-based tourism strategy for Australia.

Remarkably, given the centrality of nature to tourism marketing and to the visitor experience, there is no national plan for nature-based tourism.

There is no national strategy for how and where the industry could develop, dealing with risks and constraints, and from my perspective – most critically – no clear plan, expression or commitment for protecting the vital natural asset base on which the industry depends.

You might think this a bit harsh, but recall the SoE 2016 comment about the lack of national vision and effective policy for the environment.

Visitors are a vital constituency for our natural world. Sharing, appreciating, understanding, experiencing, enjoying, and being challenged by our natural world is an essential approach and pathway to building this constituency.

We love the places we connect with, where we have meaningful experiences and memories, where we find a sense of place, wonder and belonging and where we learn something of the world, and ourselves, and our place in that world. We protect the places we love.

So connecting more people with nature, can help build the constituency for nature. But there are pitfalls, that you would know only so well – such as poorly designed and located infrastructure, lack of proper regard for environmental impacts, and even marketing that doesn't deliver on its promise.

It's much more than the current approach of merely marketing ourselves and wonderful imagery. It requires increased depth and diversity of nature-based products and associated services, to build a critical mass of quality, nature-based tourism experiences in regions that encourages visitation and keeps visitors and their dollars in the region, rather than just passing through for a brief scenic stop.

Experiences that are meaningful and connect people with nature are not delivered by bus loads of visitors disgorging at a car park in a scenic spot, taking photos and leaving for their next destination.

The sort of nature-based tourism we are focusing on is low volume, and ideally but not necessarily high yield.

Connecting with nature engages all the senses – it can be rejuvenating, exhilarating, physically demanding, and leave lasting memories and benefits.

Of course connection with nature can

come through more abstract means: through books, films and pictures (we all have an enormous debt to David Attenborough), the media, Facebook, YouTube, Instagram, and Twitter. While these may inspire, engage and inform, there is no substitute for the real experience.

By engaging all the senses, from the full spectrum of being solely responsible for your own welfare and survival, to journeying, playing and learning in the company of others - these experiences make emotional connections – which at their best (and possibly at their worst) stay with you for life.

It helps to have a good understanding of an issue and its importance, but a passion for it is driven by personal experience.

The increasing trend for walking experiences is a great one. Cradle Mountain and the Three Capes Walk in Tasmania, the Bibbulmun track, the Scenic Rim, the Larapinta trail, etc.

They have not been without their controversies, but they play a vital role in attracting and educating visitors, and instilling a love and appreciation of nature. They can also build an appreciation among local communities of the benefits of well-managed eco-tourism, and the value of the natural assets on which it depends.

So doing all this well requires careful planning and management at a regional level, and ensuring that marketing and promotion are aligned with product branding and availability.

It's a very competitive world. Many countries are competing for nature-based visitors. The internet is an invaluable

research tool for travellers, and social media ensures that successes and failures are rapidly communicated to wide audiences. Poor quality experiences are easily communicated widely and readily discovered, as are high quality experiences.

This places a powerful discipline on tour operators and others in the nature-based tourism industry.

It is essential that we collaborate and work together to ensure the industry achieves its potential, and helps protect the natural assets on which it depends.

My key messages about nature-based activities are that they –

- contribute to improved health and well being, both physical and mental;
- provide employment, recreational opportunities;
- bolster regional economies and create demand for associated services; and
- build constituencies for nature.

Now to briefly mention some other tools and approaches before I spend some time on nature and health.

Natural capital

Measuring the quantity, extent and condition of natural assets is vital, and the concept of natural capital has gained considerable currency in recent years.

A natural capital approach views nature as a stock of natural assets, providing flows of ecosystem services on which human well-being depends. The aim is to make the value of nature more visible in economic decision-making,

particularly by governments, businesses and financial institutions.

Government statistical agencies and natural resource agencies all consider some aspects of a country's natural capital – identifying, measuring, valuing and accounting for stocks of natural capital and/or flows of ecosystem services.

Much of this is done in physical terms. Any valuation of these stocks and services, which is often contentious, builds on the physical accounts of these stocks. Internationally this work is being led by the World Bank, non-government organisations (NGOs), academics and by a group of international companies.

One of these groups, the Natural Capital Coalition, last year released the Natural Capital Protocol. The Protocol is designed for valuing natural capital in business and investor decision-making “to enable better measurement, management, reporting and disclosure”. The development of the Protocol builds on work of the International Union for Conservation of Nature (IUCN) and the World Business Council for Sustainable Development.

This work has a long history – often regarded as beginning with Schumacher's book “Small is Beautiful” published in 1973. Interestingly he was the Chief Economic Adviser to the UK National Coal Board for two decades. A theme he became famous for championing was ‘economics as if people mattered’.

Now we are talking about economics where nature matters.

Relevantly, a natural capital approach also helps deliver on the objectives of the biodiversity-related Conventions, the Sustainable Development Goals and the Aichi Targets, including Target 2 which stipulates that by 2020, at the latest - biodiversity values have been integrated into national and local development and poverty reduction strategies, planning processes and national accounting.

Ecosystem services

Ecosystems services are the goods and services provided by nature such as clean water, clean air, carbon sequestration, soil and catchment stability, aspects of disaster risk reduction, buffering the impacts of extreme weather, and pollination.

The aim of current work on ecosystem services is to make 'the invisible, visible'.

In recognition of the importance of these services and a general lack of rigour and capacity to measure, assess and value these services, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) was established in 2012. This was done in response to the Millennium Ecosystem Assessment, which had provided the first state-of-the-art scientific appraisal of the conditions and trends of the world's ecosystems and the services they provide, as well as the scientific basis for action to conserve and use them sustainably.

The first major IPBES report on pollinators and food production was released last year.

The Millennium Assessment showed that biodiversity and ecosystem

services are declining at an unprecedented rate. This work led to the development of Agenda 2030 and the seventeen Sustainable Development Goals, adopted and agreed by all countries in 2015.

Environmental Economic accounts

Decades of work at the United Nations (UN) and the World Bank have produced major international frameworks and global standards that include key concepts, terms, units, classifications and accounting principles for measurement of natural capital and ecosystem services.

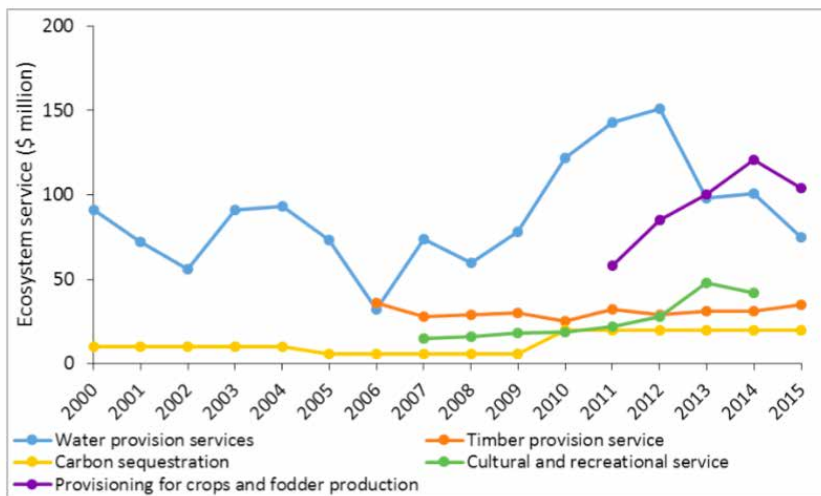
These complement the long-established international standard of the UN System of National Accounts, which provide for the description of the economic state of nations in monetary terms, and give rise to Gross Domestic Product – the GDP which we know and love.

The much more recent UN System of Environmental Economic Accounting central framework, is an international statistical standard covering major natural resources (land, water, timber, fish, energy and minerals) and pollution accounts (air emissions).

The associated Experimental Ecosystem Accounting approach has been developed to assist with implementing the central framework, and while not yet an international standard, is being applied and tested in a number of countries, including Australia.

In fact Australians have played a major role in developing these systems and approaches. Several now work at the Australian National University in

Figure 10.5. Value of ecosystem services generated in the Central Highlands study area



Canberra, and recently helped produce Experimental Ecosystem Accounts for the Central Highlands of Victoria.

This work was aimed at determining the extent to which the concepts and accounting structures can be populated with existing data, to aid decision-making at the regional level. This region was chosen because current land management decisions are contending with controversial land use activities. It is well known as the habitat for Leadbeaters Possum – the animal emblem of Victoria.

While biodiversity per-se is not included as an ecosystem services in the UN framework, some users of the framework, and the authors of this report on the Central Highlands, have addressed habitat provisioning services provided by biodiversity (e.g. for timber, carbon sequestration, cultural and recreational services such as tourism).

This approach can provide a rational, analytic and more comprehensive approach for decision-making, placing the environment and its condition and trends much more centrally in decision-making.

Environmental profit and loss

Another largely private sector led initiative – the development of environmental profit and loss accounts for companies – has been driven by concern, both within and outside the companies, about the impact of the company's business across its whole supply chain – including the land and water used to produce raw materials, and impacts on biodiversity and other ecosystem services.

A number of large companies have produced these accounts and used them to develop more sustainable supply chains for their products, lessening their environmental impacts.

Two examples – Kering (led by Jochen Zeitz, former CEO of Puma – part of the Kering Group, and now a champion of making companies sustainable and aware of their environmental impacts and how to reduce them) and KPMG.

Other market based approaches

The emergent markets for carbon and biodiversity credits are yet to be stable and fully reliable.

They offer potential to produce funding streams for land restoration and rehabilitation as well as carbon sequestration, but a range of issues with their efficient and effective operation still need to be addressed (in my view) e.g. governance, credibility, stability, measurement and valuation.

Nonetheless, some well-established markets exist for carbon sequestration, and some have significant social and cultural benefits as well.

Health and wellbeing and connection with nature

138 years ago next month, the New South Wales Parliament engaged in a contentious debate about the impact of overcrowding, pollution and the lack of recreational space on the health of Sydney's inner-city population.

Urban reformer John Lucas, spoke passionately about the higher death rate of people living in the inner city with little open space – and especially the higher death rate of children under five.

Another member Tom Garrett, a distant relative of the former Environment Minister Peter Garrett, also decried what he described as the *“evil of overcrowding about Sydney”*.

Tom Garrett praised the approach in America which he had visited the previous year and where, he pointed out *“...every town had large reserves and the streets were wide enough to admit planting of trees”*.

The NSW Parliament resolved that all centres of population should have places of public recreation – to quote *“to ensure a healthy and consequently a vigorous and intelligent community”*.

As such, Australia's first national park was established in 1879.

But the fundamental reliance of human wellbeing on nature, has been known and documented for centuries.

Nature provides key goods and services - clean air, water, food, fibre and other materials - on which the world's population remains intimately dependent.

Other less direct values have been long recognised – such as the important role of natural settings and gardens in the treatment of physical and mental ailments, reflected in the siting and design of hospitals and psychiatric institutions, and the restorative value of natural spas and outdoor physical activities like walking to regain and maintain health.

There are other vital aspects of the relationship between human wellbeing and nature that are less well-known. The scientific literature establishing the essential role that contact with nature plays in physical, mental and spiritual health and development is relatively recent.

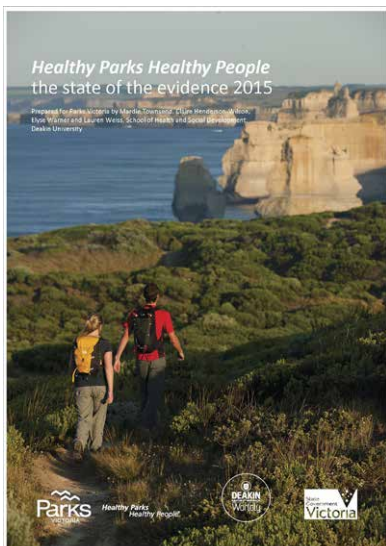
Several major reviews have concluded that the effects of nature on mental and

physical health have been rigorously demonstrated, with the balance of evidence clearly indicating that knowing and experiencing nature makes us generally happier, healthier people.

A diversity of research is finding that voluntary and cooperative activity to conserve and restore nature, generates positive social and mental health outcomes.

In Australia, studies examining indigenous health indicators from individuals participating in caring for country activities (that deliver nature conservation outcomes), have found that participation in these activities is associated with significantly better health, than individuals who do not participate in these activities.

Moreover, other studies are showing improved emotional and stress resilience for individuals from contact with nature, and from volunteering in nature conservation.



The role of contact with nature in the physical and mental development of children is another active area of research, with strong evidence of a positive relationship between play in natural settings, and the early development of executive function.

There are active programs of research and delivery, that are exploring and using the extraordinary potential of the cross-fertilisation between conserving nature and individual, and community action and wellbeing.

Australia, through Parks Victoria's pioneering Healthy Parks Healthy People initiative, has been a global leader in establishing both a research agenda in this field, and its practical implementation at the community level.

Increasingly, there is evidence that the benefits of contact with nature and participating in nature conservation activities, are reflected in community and workplace wellbeing, and improved prosperity for individuals, enterprises and regions.

Research from the UK indicates that contact with nature has beneficial impacts on individuals and groups experiencing social exclusion and on prisoner recidivism.

Urbanisation and the explosion of technology, has in many cases displaced or replaced contact with nature – from increasing population density in cities, conversion of open spaces for urban development, walking machines and gyms replacing outdoor exercise, and recreational activities that depend on technology rather than the physical environment.

Our direct ties to nature are being seriously stretched.

The consequences for both the natural world, and the physical and psychological wellbeing of individuals and societies, must be better recognised and addressed.

Most developed countries, and an increasing number of developing countries, are grappling with the increasing dominance of lifestyle related conditions such as obesity, diabetes, cardiovascular dysfunction, and depression, as evidenced in morbidity and mortality statistics.

There is an escalating, increasingly unsustainable expenditure on ill-health, medical diagnosis and treatment, and spiralling costs associated with insurance and compensation for workplace health issues, particularly mental health and stress.

At the same time, there are concerns that the priority for, and investment in nature conservation by governments, is declining.

We need to put these two critical issues together – investing in nature conservation, and the major health benefits from people experiencing

nature. Protecting and experiencing our natural world can, and should, play a significant role in reducing future health care costs.

The clear benefits of reduced cost and risk in the workplace from improved worker health and wellbeing have attracted interest and investment from leading companies in the insurance sector, particularly in improving mental health and stress resilience in the workplace.

The corporate and public sectors are investing in a range of initiatives to improve workplace health and wellbeing, reduce the cost of insurance premiums and lost time, improve workplace morale, culture and productivity, and build social capital in the communities in which they operate.

Volunteering in nature has increasingly well-established associated health benefits for participants, improving their social connectedness and wellbeing, lowering blood pressure, and improving their stress resilience and morbidity and mortality indicators.

There are great opportunities to extend these learnings into conserving and restoring Australia's natural capital as



Conserve and sustainably use the oceans, seas and marine resources for sustainable development



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



well, and strengthen the important linkages between people and nature.

Some conservation agencies are responding to these signals and refocusing their efforts to embrace these more inclusive approaches in partnership with other sectors, working more closely with their local communities and the diversity within them, to realise the multiple benefits from protecting and restoring nature.

The world is beginning to more explicitly acknowledge the interrelationships between the health of human societies and the health of our planet. This is perhaps most clearly enunciated in the Sustainable Development Goals – which are defined as being equally important and mutually reinforcing. As conservationists, we might focus on two of these goals – 14 and 15:

However, as I have alluded to in this presentation, all of these goals are important, and they each depend on the others.

In conclusion

Conserving our natural assets is vital in

its own right. It makes good business sense economically, for tourism, and for the ecosystem services they provide.

But perhaps most significantly, if we only take a purely anthropocentric view, we should protect nature for the physical and mental benefits it can deliver, for current and future generations of humankind.

Our tools to understand, measure, assess and value the services and benefits of nature, are improving and becoming more sophisticated.

These initiatives and approaches are helping to make nature more relevant, less marginal, and more central in public policy and decision-making.

They are enabling a more systematic approach to securing the future of our natural world.

Which is not to say that NGOs and others should ease off on campaigning, and exposing and publicising bad (and good) environmental practice. This is, and will remain, a vital activity.

But there is cause for optimism.

Thank you.

Established in 1930, NPAQ is an independent, not-for-profit, membership-based organisation. The association has played a pivotal role in the establishment of many national parks in Queensland. NPAQ's purpose is achieved through advocating for the protection, expansion and good management of the protected area estate in Queensland; fostering the appreciation and enjoyment of nature through a bushwalking and outdoor activities program; undertaking on-ground conservation and monitoring work; educating the community about national parks and their benefits; and supporting the development and application of scientific and professional knowledge in advancing national parks and nature conservation.



As a not-for-profit organisation, we are reliant on your donations to continue our work protecting the unique natural spaces that Queensland's species call home.

**Make a donation or become a member today!
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