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# **Building Biodiversity: Building New Zealand**

**Lincoln University  
7 October 2010**

**Al Morrison  
Director-General  
Department of Conservation**

Here's a question. What connects Elvis Presley, Roy Rogers, Billie Graham, Sir Howard Morrison and probably you?

They all added to their popularity – well, perhaps not you – with a rendition of the popular hymn, How Great Thou Art. Elvis even won a Grammy Award for it in 1967.

My guess is you remember the first verse about the awesome wonder of the stars and the rolling thunder. Do you remember the second?

When through the woods and forest glades I wander,  
and hear the birds sing sweetly in the trees.  
When I look down  
from lofty mountain grandeur,  
and hear the brook  
and feel the gentle breeze.

As kids, that's what we got on Sunday. During the week we got a secular dose of nature's wonder.

I wandered lonely as a cloud  
That floats on high o'er vales and hills  
When all at once I saw a crowd,  
A host, of golden daffodils;  
Beside the lake, beneath the trees,  
Fluttering and dancing in the breeze

In a more secular and post colonial era, we might better revert to our own poets who share similar sentiments. Poems like Brian Turner's Under Mt St Bathans.

There is majesty in the mass  
Light moves, tints the snow;  
The wind shakes the sparse grasses;  
Water runs, stones rattle unexpectedly  
And the land speaks;  
None of us are greatly different,  
We're ordinary more than extraordinary  
Most of the time. And if there's one word  
For what the sun highlights on the hills,  
One word that we should apprehend  
And make our own, it is  
Decency: and, what's ever implacable,  
And what stone has irreducibly,  
dignity

The appeal of nature is intrinsic. Nature has value in itself. Value that does not owe its being to our presence or our intervention. Nature's moral dimension. Value that we reach for when seeking inspiration, solitude, cultural meaning, spirituality...value that

takes us beyond our inflated sense of significance and puts us in our place in the scale of things.

That should be argument enough to treat nature with respect. But demonstrably it is not. For all our exaltations, we keep on trashing the place.

The Millennium Ecosystem Assessment - a global audit of the world's forests, wetlands and other ecosystems - found that ecosystems have declined more rapidly and extensively over the last 50 years than at any other comparable time in human history.

We are degrading ecosystems and destroying species to a point where the services that nature provides, that we rely on for our sustenance, and that determine our prosperity, are being run down and out.

If we are to save ourselves from ourselves, then appealing to the intrinsic value of nature is not enough. It is not a matter of giving up that sense of awesome wonder, but rather adding to that, an argument designed to compel the uncommitted.

Unseemly though it may seem to nature lovers, we have to appeal at a less lofty level.

So here's another question to get started on a different tack.

If you earned \$100,000 a year and your outgoings were \$120,000 a year would you be concerned? Maybe not in year one. How about year two, or after five years on the trot of living beyond your means and with a year's earnings of debt built up.

New Zealand has been living beyond its means for 37 years in a row, and now it has caught up with us.

Our economy is dangerously exposed, seriously out of balance, and facing huge adjustments. And the prospect of getting back in to balance is a distant one.

That's bad news for those of us who think there is an urgent need to invest much more in conservation and good environmental management, because the received wisdom is that it's only strong economies that can afford a clean environment.

Our economy is not strong. The Finance Minister Bill English described the size of the problem in a recent speech to the Australia New Zealand School of Government.

"In 2000, our debt to the world was just over \$100 billion," Mr English said. "It's now approaching \$180 billion and by 2014 it is forecast to be nearly \$250 billion."

"As governments around the world strive to tackle the fallout from the global recession," Mr English said, "Good public sector management will be critical."

Mr English is challenging chief executives to innovate, take risks and push the boundaries to create a new public management system that is far more effective and significantly cheaper.

If the public sector is to collectively meet this challenge, then it must be from a broad base of collective agreement about its purpose.

Surely at the highest level it is that New Zealand and New Zealanders prosper into the future; that our children and their children and generations to come enjoy the choices, benefits and privileges that we enjoy. That we prosper as a nation, as communities, as families, and as individuals.

The public service has a role to create the conditions under which prosperity continues in a fast-changing world.

Prosperity incorporates economic growth, but means much more. The notion is a challenge to the way we measure wealth and describe the economy.

Professor Tim Jackson, Economics Commissioner for the UK Sustainable Development Commission defines prosperity as “our ability to flourish as human beings – within the ecological limits of a finite planet”.

It is a definition that brings us face to face with the reality that the ecological services we rely on to survive and thrive - the quality of our air, the amount of water, the stability of soil, the supply of fibre, the pollination of plants, the functioning of nutrient cycles and so on, are not limitless.

Prosperity injects the notion of individual wellbeing into the overall wealth of a nation. Convincing the public that its public sector is critical to that is no easy task. The public service is typically seen as a drain on the public purse, not a player in wealth creation.

Right now, building credibility for the public service hinges on minimising the drain on the public purse while being seen to be a critical and effective player in creating a new, tailor-made, fit-for-purpose, post-recession order that is restoring prosperity.

Where to start?

We have always defined ourselves as people of the land; the land of the long white cloud; Aotearoa New Zealand. We seek to tread lightly on that land, albeit too often in a clumsy way. Our cultural identity and spirituality are linked to the landscape.

We are rich in natural capital, and that is the advantage point we must work from.

Practica, a United States group that carries out marketing for such clients as Johnson & Johnson, Kmart, Coca-Cola, Nissan and McDonald's, recently did a survey for New Zealand advertising firms. It was designed to surface the key defining characteristics of New Zealandness, and unsurprisingly, our relationship with the land stood out.

Reporting on the research in the Listener, Jane Clifton wrote: “ New Zealanders sense of self-definition is heavily bound up with love of the natural world. We share this with Australia, but there’s a twist. Australia has a strongly physical relationship with the land, needing to have a sense of conquest or control – because their environment

can be hostile and can kill them. With New Zealanders' climate and landscape being rather more benign, our view is apparently more spiritual, even soulful.

"This goes some way to explaining the resistance to mining this side of the Tasman," Jane Clifton commented. "Apparently we want to keep the land the way it is, whereas Australians are more comfortable with changing and exploiting the land".

We need to keep this front of mind when we are thinking about New Zealand and making our way in the world. Lasting prosperity is built around national values. We are, Maori and pakeha, people of the land; and fundamentally we like it the way it came to us.

This is where we must look to build our base of international appeal for greater prosperity. Perhaps that helps explain our current angst over ownership of the land that supports our farming economy, and farming practices.

In my area of Conservation; we are not starting from scratch.

Tourists come long distances to New Zealand to see it. They tell us that our natural landscape and the experiences it provides is the primary reason they choose to come here, and 99 percent of them leave with their expectations met or exceeded.

Tourism is the obvious link between conservation and the economy. That is where the circle operates most directly in which a government department facilitates private profit which generates the taxes that pays for the department. We need each other. Conservation is good for business, and business is good for conservation.

The importance of maintaining natural New Zealand in a healthy state as a platform for tourism's profitability is well understood.

"Our environment is a huge part of our brand," The Prime Minister and Minister of Tourism John Key said in a speech last year. "The Government will work to protect the resources that tourism providers rely on – clean air, clean water, and unique landscapes...but we must also acknowledge that our environment is not just there to be protected. It is there to be enjoyed," Mr Key said.

Conservation, along with other environmental and natural resource agencies, has a critical role in maintaining the integrity of brand New Zealand. But there is more than simply brand value at stake. Protecting our biodiversity, which means maintaining the ecological integrity of the places our native plants, birds, animals, freshwater and marine species need to survive, is the sleeping giant of the conservation economy.

New Zealand doesn't have a brilliant track record. That we are relatively Clean and Green and 100 Percent Pure, is little credit to our deliberate efforts.

The brand is largely available to us because we have had relatively little time and few people to mark our footprint over the entire land. But we are as guilty as any party of depleting and degrading our natural capital.

We would like to think that where mistakes have been made, they are just that; mistakes. History too often says otherwise. I have time for only one example.

In 1876, Sir George Grey introduced the Noxious Animals Introduction Prevention Bill into Parliament. The Bill was designed to prevent the introduction of predators, including stoats, which British ornithologists warned would eat native birds, not the rabbits that were over-running farms.

Parliament passed the law, but an Upper House stacked with landed gentry overturned it and in 1877 stoats were introduced.

The result of that and other such decisions that you and I and landowners fork out millions upon millions of dollars every year to control the menu of animal and weed pests that threaten our native biodiversity. And despite that we are going backwards. Where we operate, we are successful. But the task is huge and beyond the resources, the players, and, most importantly, the approach, that we currently rely on. The status quo is not an option.

We are in global company. In 2002 the world's leaders agreed to achieve a significant reduction in the rate of biodiversity loss by 2010. The United Nations adopted 2010 as The Year of Biodiversity and has collated the evidence. The targets have not been met and biodiversity loss continues and in some cases is accelerating.

The UN Secretary General Ban Ki-Moon commented: "Biodiversity underpins the functioning of the ecosystems on which we depend...Current trends are bringing us closer to a number of potential tipping points that would catastrophically reduce the capacity of ecosystems to provide these essential services...to tackle the root cause of biodiversity loss, we must give it higher priority in all areas of decision-making and in all economic sectors."

Consumers are becoming wise to this, increasingly alarmed, and operating as the new regulators of corporate behaviour.

Consumer sentiment does not necessarily stand up to robust environmental analysis. But underpinning the trend is a logic that nature plays a role in sustaining economic development, and it is in our interests to ensure our natural environment is healthy so that the systems we rely on are in good working order.

The negative impacts of living out of balance with nature are starting to look real. Even in New Zealand, water has become a serious issue, the carbon deficit is hurting, and the impacts from the destruction of natural catchments, siltration and nitrogen run-off are hurting business. Our personal wellbeing is at issue, so we are sitting up and taking notice.

Nature's systems are finite and we are using them to a point that there is a supply and demand problem. And we are exacerbating the problem by mismanaging and destroying the ecosystems that we rely on to supply those critical services. Technical solutions can stave off some of the problems for some of the time; storage dams, flood protection measures and so on. But at our current rate of biodiversity destruction, something has to give at some point.

The impacts of fierce competition for scarce resources and consumer action means business is increasingly engaging in the problem of the economics of biodiversity loss.

A report by the World Business Council for Sustainable Development states: “Conserving ecosystems and sustaining the services they provide is a pre-requisite for prosperity. Environmentalists have long argued this. Business, governments and society at large are catching up.”

The council has identified risk areas for business from the degradation of ecosystems. Operational, regulatory, legal, reputational, market and financial risks.

To my observation, the jury is out as to where New Zealand business is up to in this respect in its collective thinking. Those who see opportunity in developments that demand biodiversity impacts be accounted for - primarily the tourism industry, mining and energy sector – are engaging; some enthusiastically to the point of seeing market advantage in delivering net biodiversity gain, others willingly, and some grudgingly.

Business New Zealand Chief Executive Phil O'Reilly is grappling with the issues.

“Taking action against climate change is essential to protect our ‘clean, green’ image,” he says in a publication to members. “This image will work to our advantage in the international market place as sustainability becomes an important selling point for goods”.

It may seem crass to say that climate change and it's big cousin, biodiversity loss, create a potential competitive advantage for New Zealand. But connecting the ethics and the self-interest; intrinsic value and economic benefits, helps us better understand that sustainable management of natural resources is not just about nice things to do when time and discretionary resources are available.

It is a necessary investment in the natural capital that sits at the base of our economy. Water, soil, air, nutrient cycles, climate regulation, pollination...these and other services are the natural capital we need to survive and prosper. That reality makes a nonsense of the received wisdom that only rich countries can afford clean environments.

That was well understood when, in 2007, the environment ministers from the G8 (Canada, France, Germany, Japan, the Russian Federation, UK, USA and the EEC Commission) and five developing nations (Brazil, China, India, Mexico and South Africa), met in Potsdam, Germany.

Inspired by the Stern Report on climate change, the 13 ministers commissioned the biodiversity equivalent, called The Economics of Ecosystems and Biodiversity (TEEB).

New Zealand has contributed research, case studies and peer review to several studies coming out of that exercise.

In July this year the TEEB report for Business was published. It makes the case for integrating the economics of biodiversity and ecosystems services in decision-making.

“There are both serious risks to business, as well as significant opportunities, associated with biodiversity loss and ecosystem degradation,” the report states. “There is also a need for business to quantify and value its impacts on biodiversity and ecosystems, in order to manage these risks and opportunities and enable a better future for all.”

This is the sleeping giant of biodiversity that I referred to earlier. This is where the significant new investment in conservation must come from if we are to halt and reverse the decline in natural species and ecosystems.

The TEEB study commissioned a global survey of Chief Executives that showed one in four see biodiversity loss as a strategic issue for business growth.

One in four means three in four do not. And of those who are concerned, the numbers are much higher in developing countries than developed economies.

Another survey showed rising interest by consumers in biodiversity loss, with over 80 percent saying they would stop buying products from companies that disregard ethical considerations in their sourcing.

Again, it is easy to be dismissive. Would their resolve hold in the face of pricing differences?

For all the ability to dismiss the arguments, the trend is established. There is a solid platform of business concern; certainly enough to test whether nature-friendly companies will have a market advantage. And there is a consumer trend:

- Global sales of organic food and drink have increased three fold since 1999
- Sales of certified sustainable forest products quadrupled between 2005 and 2007
- In the year to March 2009, the global market for eco-labelled fish products grew by over 50 percent to a retail value of US\$1.5 billion
- Oh yes, and back at home a consumer backlash forced Cadbury’s to stop using palm oil.

In terms of the overall international markets, these are small beginnings and those who see only cost and risk can find reason and comfort enough in the old, exploitative ways.

But is that New Zealand’s future – to extract what we can with minimal regard: to ignore the warnings and expose costs on future generations as those who denied the evidence when allowing stoats into New Zealand 125 years ago.

Is that the future of us as a people in a small, isolated country where the values that give us confidence to stand in a unique place are to show respect and tread lightly on

the land; who take pride in a clean, green image; albeit one that now requires much greater investment than we have previously been prepared to commit to?

The Department of Conservation is gearing up for an awakening by New Zealand business that nature-friendly practices down the whole value chain are our market advantage. A business sector that understands that conservation is good for business, and business is good for conservation. That's our value added hypothesis to build on the vast community of support that we have from those who are ethically committed to the maintenance of our unique species and places.

The biggest obstacle to giving substance to it is the lack of baselines and metrics that can be used to assess and manage the impact on biodiversity of an activity at a place.

The global carbon market grew from virtually nothing in 2004 to over US\$ 140 billion in 2009, but it took international attention, regulatory environments, and a metric to get there. Biodiversity impact is much harder to measure and manage.

There is serious international attention being paid to this, and New Zealand is at the forefront of some of the work.

The Department of Conservation and the Ministry of Economic Development, MAF and LINZ, along with Landcare and other agencies, are engaged in a three year \$2.7 million study designed to quantify the impact on biodiversity of development activity at a place.

That work is aligned with a \$15 million effort over the next three years to produce the system and operational work required to measure biodiversity baselines, the subsequent natural changes in species and ecosystems and the impact of future development activities on these.

We have also established a commercial business unit in the department that will seek out the opportunities and work with the business leaders who are committed to achieving greater prosperity for New Zealand through an enhanced environment.

True to form, it has attracted ideological reaction from those who see conservation and business as incompatible bed-fellows.

Those who would refuse to see beyond the ethical, the moral, the intrinsic argument for nature protection have a responsibility to provide a realistic alternative route to financing the conservation work that needs to be done and that is of such a scale that cannot realistically be achieved by taxpayers alone.

Anyone who looks at the evidence can surely not fail to conclude what the World Business Council for Sustainable Development concluded in a 2008 report, that : “We are literally dismantling the machinery that supports life on the planet”.

So why do we go on doing it?

When the current recession revealed a collapsing financial system, some 12 trillion dollars was found in quick time across the globe to prop it up. But when nations met

at Copenhagen to try and restore a collapsing environmental system, the cupboard was apparently all but bare.

Therein lies the nub of the problem.

The way we conventionally describe and measure economic progress is an incentive to ignore the impacts of unsustainable natural resource use and management, and capture the benefits and subsidies from that with a clear conscience.

GDP can be measured in terms of income, expenditure, or production, but over time all three produce much the same result. None takes a systematic account of environmental impacts. Creating an environmental mess is good for GDP. It typically increases the immediate benefit for the developer by disguising true costs, and down the track the cost of cleaning up the mess generates further economic activity, usually at public expense .

Massive environmental subsidies are defined out of existence by labelling the costs as externalities and discounting them because they lie well in the future. We don't talk about building up environmental debt in the same way as we talk about building up financial debt, and that stops us worrying about it. It's a recipe for sleeping easy.

But all we are really doing is condemning future generations to meeting the costs of our lack of concern. That always was a moral problem for economists. Now it's a practical one. The system is catching up on itself and those discounted future costs are now yours, your children's, and your grandchildren's.

Consequently, GDP is increasingly being questioned internationally as a suitable measure of economic growth.

GDP measures wealth but takes little account of its distribution. The trend for increased wealth to be retained in fewer hands now means an increase in GDP does not even necessarily translate in to higher standards of living generally. In a number of wealthy countries, GDP is rising while general wellbeing is falling.

If GDP is failing as a measure of both social stability and environmental sustainability then surely that is a powerful incentive to find a new construct that measures true progress.

It is no easy task to build one. First base is to balance economic, social and environmental considerations and reach a pragmatic compromise. But that's far from a home run. Living in harmony with nature's systems; living sustainably, is not apart from the economy, it is a key component of it. Nature's systems lie at the base of any economy. If they are not functioning efficiently, then the economy cannot function efficiently. If we destroy them, we destroy the economy.

So like or not, our future is inextricably linked to how we tread on our land and oceans, and manage the natural resources that are the key to our surviving and thriving.

Through good luck more than good management, New Zealand remains a land of opportunity in this respect. Not just because of what we have at our doorstep, but also because of who we are.

But there is a lot of work to do to make this a prosperous path for New Zealand. It will require radical change in public policy and management, economic thinking, and business practice. I see enough activity to make me optimistic, but no real sense of urgency. We are still gambling with nature's tolerance.

The work is complex and difficult; but the business case for it is simple. Toi te whenua, toi tu te tangata. If we look after the land, the land will look after us. Tena koutou, tena koutou, tena koutou katoa.