

## National Conservation Incentives Forum

Future challenges for Incentives in Australia  
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Ladies and gentlemen, you've already had two days of the forum and have been working hard in your various workshops. I would like to take you out of the detail and into the macro world of the state of the planet before I re-earth myself on a coast in Australia. I will touch on some of our issues that face us, economics, society, before I finally conclude talking a little about social change.

### *The State of the Planet*

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and wasteful consumption

However from the recent Millennium Ecosystem Assessment Synthesis Report – “Ecosystems and Human Wellbeing” that was released in March this year [www.millenniumassessment.org](http://www.millenniumassessment.org) we can see that we are not doing so well! The state of the natural environment is going ever backwards!

Eight Millennium Development Goals were endorsed by governments at the United Nations in September 2000. The MDGs aim to improve human well-being by reducing poverty, hunger, and child and maternal mortality; ensuring education for all; controlling and managing diseases; tackling gender disparity; ensuring sustainable development; and pursuing global partnerships.

Between 2001 and now, an assessment of the state of the planets ecosystems was carried out. In the Millennium Ecosystem Assessment Synthesis Report there were four main findings which I paraphrase as:

- 1) Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history.
- 2) The changes have contributed to substantial net gains in human well-being and economic development, but these gains have been achieved at growing costs.
- 3) The degradation of ecosystem services could grow significantly worse during the first half of this century and is a barrier to achieving the Millennium Development Goals.
- 4) The challenge of reversing the degradation of ecosystems while meeting increasing demands for their services involve significant changes in policies, institutions and practices that are not currently under way.

Let me expand a bit more on the first finding.

Finding #1: Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fiber and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth.

The structure and functioning of the world's ecosystems changed more rapidly in the second half of the twentieth century than at any time in human history.

? More land was converted to cropland since 1945 than in the eighteenth and nineteenth centuries combined. Cultivated systems now cover one quarter of Earth's terrestrial surface.

? Approximately 20% of the world's coral reefs were lost and an additional 20% degraded in the last several decades of the twentieth century.

? The amount of water impounded behind dams quadrupled since 1960, and three to six times as much water is held in reservoirs as in natural rivers. Water withdrawals from rivers and lakes doubled since 1960; most water use (70% worldwide) is for agriculture.

? Since 1960, flows of reactive (biologically available) nitrogen in terrestrial ecosystems have doubled, and flows of phosphorus have tripled. More than half of all the synthetic nitrogen fertilizer, which was first manufactured in 1913, ever used on the planet has been used since 1985.

? Since 1750, the atmospheric concentration of carbon dioxide has increased by about 32% (from about 280 to 376 parts per million in 2003), primarily due to the combustion of fossil fuels and land use changes. Approximately 60% of that increase (60 parts per million) has taken place since 1959.

**Humans are fundamentally, and to a significant extent irreversibly, changing the diversity of life on Earth, and most of these changes represent a loss of biodiversity.**

Let me now speak of our coastal areas and for this section of my talk I'm indebted to Grant Farrell of CSIRO and am going to quote from a piece of his work..

**"Australia: loving its coast to death"**

The coastal zone is the focus of major economic, social and environmental issues in Australia. More than 86% of Australians live near the coast, and Australians attach high recreational and conservation value to their coastal environment. The collision of competing uses and objectives make achievement of Ecological Sustainable Development in the coastal zone extremely challenging, yet this is where a successful outcome matters most to Australians.

The most recent State of the Environment Report (2001) concludes that, despite efforts to improve coastal management, and some success stories, coastal zone condition overall continues to decline. There are a number of key drivers which are expected to put added pressure on the coastal zone over coming decades.

**a. Population growth and demographic shifts.**

Coastal towns are experiencing high rates of population growth, enhanced by a demographic shift to the coast. Australia is experiencing population growth not only in major (coastal) cities, but also in urban strip development along coasts away from cities. This will be exacerbated as the population ages and baby boomers retire to the coast.

Aside from diffuse and point source pollution, coastal urban expansion results in loss of coastal wetlands and other key habitat, creation of artificial environments (e.g. canal estates), increased vulnerability to erosion and storm damage, and exposure of acid sulphate soils.

If this urban strip development is not better managed, the acute local environmental impacts associated with inputs of contaminants from our major cities into adjacent estuaries and embayments will be accompanied by chronic impacts along hundreds of kilometres of coastline. The National Land and Water Resources Audit (NLWRA 2000) found that over 50% of the estuaries between SE Queensland and SW WA are already modified or severely modified.

**b. Industrial development.**

Coastal population growth is accompanied by economic development and increasing conflicts over resource uses and services. Along with land-based manufacturing industries and shipping, there is growth in coastal tourism, aquaculture, offshore oil and gas, and increased pressure on coastal recreational and commercial fisheries.

Pressures associated with industry include industrial pollution, introductions of marine pests, dredging, infrastructure, changes in flushing rate and displacement of habitat, and removal of renewable resources.

**c. Catchment land use and water allocation.**

There is ongoing concern about the impacts of catchment land use and water management on flows and loads of sediments and nutrients to estuaries and coastal waters. High profile cases (e.g. Great Barrier Reef) have increased recognition of the need to take into account downstream coastal impacts of catchment activities, but much still needs to be done, and the time scales for recovery of catchments and rivers may be very long. Meanwhile, more intensive development of the tropical catchments across northern Australia, where our more “pristine” estuaries are located, is being actively considered.

**d. Climate impacts.**

We are only just beginning to understand the impacts of large-scale climate variation on Australia’s coastal marine systems. There is every reason to expect that climate change will have particularly significant impacts on both natural and human systems in the coastal zone, through sea-level rise, changes in storm intensity, changes in patterns

of catchment runoff, and shifts in distribution and recruitment patterns for key coastal marine species and habitats.

In the past, Australians have taken the existence of high quality coastal amenity for granted. Where local urban beaches, waterways and ecosystems have become degraded, there have always been desirable locations for recreation, tourism, development, *just along the coast*.

Assessment of current state and future pressures suggests that we are facing serious regional and national challenges in maintaining and restoring the environmental, social and economic values of our coastal zone.”

So two views; one macro and one not quite micro, both pointing out the things we in this room all know – that all is not quite right with the world – to say the least! The pressures we are putting on the planet, Australia, the coasts are showing, and not showing up too well.

### **Fragile**

Last year in a talk to at the CSIRO, I spoke of the need to be able to communicate well – to be able to communicate what were the environmental issues that we faced. I penned the following lines:

Feral pests and imported weeds  
Rivers stressed and water needs  
Air quality and health in cities

Global warming and climate change  
Increased loss of biodiversity range  
Land degradation, soil salinity

Ecosystem breakdown – 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, or 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 - and that is not sustainable.

Communicating the case for change is difficult. The OECD have asked the question: “How do we make distress in the future relevant to the present?” I believe that tis is the wrong question as too often we seem to be communicating bad news to a community that feels collective impotence. A better question would be: “How do we build a future that is bright and prosperous and in which humans live in harmony with nature?” That seems a much more empowering question and challenge.

So what is to be done? Well we must learn to focus on the future and we must also wrestle with economics a bit.

## Economics and Society

Discussions about sustainability should not only remind us of the interconnectedness between, the natural world and the society we all live in but also the marketplace. These connections are not going to go away, - despite it taking some people a lot longer to make the mental connection - so often made for us by many prominent thinkers over at least the last seventy years.

Strange as this group may seem, prominent thinkers including Economists, Environmentalists, Social and Feminist commentators do agree on some things.

They alert us of the gaps and the narrowness in our current thinking, challenging business along with other institutions to find ways to operate in conjunction, not in conflict with society and the environment. For example:

### Economists

Over seventy years ago in 1932, Arthur Pigou, one of the key early economists identified that; social losses caused by business activity 'cannot be readily brought into relation with the measuring rod of money' (Pigou, 1932). Many economists have tried to put dollar values on things as diverse as the value of a sea otter covered in oil pollution to the value of traffic congestion, to the value of a wife. Most of these attempts at monetisation have been somewhat suspect.

Karl Kapp over 50 years ago; pre-empting the current resurgence of interconnectedness expressed through concepts such as corporate citizenship; warned us... 'it is reasonable to assume that the social costs of private enterprise are likely to increase in importance and magnitude, the more society becomes aware of, and learns to appreciate non-monetary values'.

And society is becoming more aware all the time!

### Environmentalists

Paul Hawken and Amory Lovins have also stressed the difficulty of finding a monetary value for natural capital, that is, elements found in the natural environment such as clean air and ecosystems but 'recognize that zero is not the right number'. The attempt at the pricing of carbon is a good example where issues such as air pollution, the greenhouse effect (and associated global warming) are intrinsically linked with minimizing the harmful effect on the public health of the community, and also on the economy.

### Social and Feminist commentators

According to Daniel Bell, the prominent sociologist, the economy finds its direction not by the price mechanism but by 'the value system of the culture' in which the economy is embedded. Bell highlights how currently, 'the value of education is measured by the cost of teachers' salaries, equipment, etc, not by the value imputable to the gain in pupil knowledge'.

Feminist commentators, Anne Summers and Marilyn Waring have both stressed that only those activities assigned a monetary value are ultimately valued by society as worthwhile, citing how work often relegated to women such as parenting and housework have been

systematically devalued and undervalued because it does not appear on any balance sheet because these activities are ‘not usually thought of as production’.

These thinkers all point to a world that increasingly connects the economic, social, environmental and cultural dimensions and tries to find a way to wrestle with values.

### **Value Creation as a driving principle of the future of conservation incentives:**

The concept of creating value and generating economic surplus is of course not new. All business enterprises, including agricultural endeavors, are undertaken to generate profits as a return on the capital, time and energy invested in the business.

Many have focused on the negative consequences of a narrow focus on the pursuit of profit by business from a social and environmental perspective. The slogan of “people before profit”, protests at WTO meetings most notably Seattle highlighted this issue.

Subsequent international meetings have shown that there remains a broad based opposition to this narrow economic focus. But the question is: will business itself see that a narrow focus needs to change?

Again, this is controversial, but many in the sustainability game, whether through Triple Bottom Line Reporting (TBL) or Corporate Social Responsibility (CSR) or Socially Responsible Investment (SRI) or whatever other fashionable concept, think business can improve its traditional bottom line by effectively managing social and environmental and even cultural and governance issues.

The usual economic approach to considering this has been to focus on externalities in markets, given that the impact of development on communal assets such as air, water, native vegetation and soil is not accounted for in the calculation of profit.

Through appropriate policies as well as internal business drivers, economic enterprises need to provide both environmental and social surpluses. It has become clear that, if done properly (and that is the big if), using the market to provide incentives to industry to deliver environmental benefits and; disincentives for causing environmental harm; can be an effective means of delivering a net environmental benefit to society.

We are starting to see more of such policies being at least promoted, and in some cases developed. Offset policies, such as those that have been used to assess coastal developments, where developers have compensated for environmental impact of their projects by expanding and protecting native vegetation, are being seen as providing a net benefit to the environment. Similar approaches have been used for road and agricultural developments.

As we know, most environmental problems are complex and solutions are not simple. While market-based incentives provide an opportunity to deliver environmental benefits, they must not be viewed as a substitute for regulation of harmful activity. In most cases market based incentives can be used in conjunction with regulations to provide the most effective outcome. The framework and context for environmental management is vital, and the suite of incentives or instruments used to address issues can be very wide-ranging.

### *WWF experience and interest in conservation incentives (globally and locally)*

To tackle the issues we have we are well beyond relying solely on regulation and the creation of national parks. We have a wealth of mechanisms, many of which you have been discussing over the last few days to help create a better future. I now want to take a step back and consider some of the experience WWF has had in recent years.

WWF working in Australia, and more particularly in developing nations, has a long term interest in determining whether offering financial and other incentives can effectively deliver environmental benefits.

Examples of Australian projects include:

- Partnering with the NSW Liverpool Plains Catchment Management Committee to design and trial an auction process to allocate incentive payments. (The booklet outlining this program will be launched at this forum.) We then followed with a partnership in the Avon Catchment in WA to refine and further test the auction concept. (Cheryl Gole presented on this project yesterday.)
- Bush Brokers - a partnership between WWF, the Real Estate Institute of Western Australia, and the National Trust of Australia to developed tools for marketing Australian bushland, through the private sale and purchase of land for conservation.
- Advocacy for tax changes and incentives

WWF, as an international conservation organization is also involved in the use of incentives to provide conservation benefits on global scale issues.

- Forest Stewardship Council and Marine Stewardship Council to certify forestry and marine products; to promote environmentally appropriate, socially beneficial and economically viable management of the world's forests and fisheries

We must remember that most environmental problems such as water quality, salinity and biodiversity are landscape scale issues. Incentives promoting actions at a property or business level need to be effectively coordinated and be integrative to achieve landscape scale benefits. Whilst all of us here in this room are doing fantastic work, we are in fact pioneering **social change**. We need to engender stewardship and custodianship into every development activity!

### *The paradigm of sensible development*

To conclude, the paradigm I believe we are striving for is one in which; rather than starting with the notion of economic development and worrying about how to incorporate the “externalities” of society and the environment; we start with the idea of “sensible development”.

I deliberately choose to pair these words, sensible and development, because we want both and the pairing is unusual!

To me a sensible development is one in which the development activity generates a surplus in the three main sustainability dimensions of society, the environment and the economy – every time! The seminal question then becomes how do we create a surplus?

We want social progress, the surplus generated when we practice sensible development.  
We want net environmental benefit, the surplus generated in the natural world, and  
We want profit, the surplus and surrogate for economic value added as we invest.

Let's recognise that most decision makers seldom worry about "sustainable development" because it seems too far off. It seems to be something they'll know about when they reflect in 20 or so years, the temporal dimension gets in the way of good decision making.

However, **if each and every development** in Australia were to be carried out by people who's values demanded an environmental surplus, a social surplus and an economic surplus; then slowly but surely we would repair the land, rivers and coasts.

To me that is a paradigm worth working for. **All the work you are doing is about creating a stewardship and custodianship mentality**, a social change that we want to take off.

I'm told that two farmers, each of whom is doing great work on their properties, are unlikely to talk about their efforts in the bar for fear of being considered a wuss! A KPI for us then is when the farmers are always talking about the biodiversity they have, the conservation they are doing, the productivity they are gaining and how the social climate is strengthening!

We need to connect the great work that is going on, build critical mass at a distance and see an explosive social change towards stewardship and custodianship; a paradigm of sensible development.

Thank you