

Building the National Environmental Accounts of Australia

CSIRO Workshop Nationally Relevant Environmental Monitoring: Existing Approaches and Future Opportunities

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Peter Cosier
Wentworth Group of Concerned Scientists

Thank you for the invitation to speak to this workshop and for providing me with the opportunity to talk about how environmental monitoring can be linked to environmental outcomes in a model for the National Environmental Accounts of Australia.

I congratulate CSIRO for convening this important workshop.

It is essential to get this right.

The State of the Environment's own committee in 2001 concluded that "it is still not possible to give a comprehensive national picture of the state of Australia's environment... because we lack accurate, nationally consistent environmental data".

In 2007, the Commonwealth alone spent \$4.3 billion. Yet, because there is not accounting system in place, we still do not know if these investments are improving or maintaining natural capital.

Last year, the Auditor General gave a damning condemnation of environmental expenditure because it was impossible to make an informed judgement as to the progress of the programs towards either long term or even intermediate outcomes.

With the coming terrestrial carbon market, it is expected that an extra \$4 billion could be available to plant trees – how and where should we spend it?

We need a framework that will guide the new terrestrial carbon economy, inform how and where we produce our food and fibre, and deliver far better environmental outcomes for the \$8 billion of public investments in environmental programs across Australia.

This can not be fixed by simply re-structuring the delivery of existing programs. It can only be fixed by building a national, but regionally based monitoring, data collection, evaluation and reporting system.

The Wentworth Group's interest in this workshop is very specific. We want to use existing environmental monitoring systems to build such a system.

The model is regionally based system of National Environmental Accounts for monitoring the health of our key environmental assets and the change in condition of these assets over time.

Whilst we need to improve the quality and delivery of environmental monitoring systems, there is absolutely no reason why we should delay the establishment of creation of national environmental accounts.

The great urgency today is not better information systems. It is to take existing environmental data, at scales that can inform management decisions and begin the long process of using and establishing trend data at these scales.

You could count all the feathers on every bird in Australia and it would not make one jot of difference to environmental outcomes if that information is not assembled in a way that enables people to make economic decisions.

There is more than enough information available now to do this well.

To do this we urgently need to set the framework for recording and reporting environmental information across Australia.

We need to focus firstly on creating a common environmental currency for all environmental assets, at all scales, and setting national standards to create alignment and consistency of environmental monitoring and reporting to track change.

In doing so, this allows a single accounting system to be used to guide a range of investments, from a range of sources, both public and private, at a range of scales, into activities that produce the most cost-effective environmental benefits.

Last year the Wentworth Group in association with other experts, put forward one model for building the National Environmental Accounts of Australia.¹

Whilst we are not wedded to this Accounting for Nature model in its totality, we do believe that a benchmark (health or reference condition) type metric assembled at a regional scale is the key to the cost-effective design of environmental accounts, because it creates an environmental currency at all scales for determining environmental value.

A regional reporting system is necessary simply because every region or catchment has unique environmental characteristics which need to be managed to cater for the specific pressures on these landscapes and environmental assets.

Regional accounting also allows an essential feedback loop where monitoring informs on delivery and visa versa.

The lack of an environmental accounting framework is one of the great failures of public policy of our generation and is at the core of our environmental problems.

It has resulted in policy and land use decisions that have caused significant and unnecessary damage to our natural environment, it has resulted in the massive waste of billions of dollars of public funds aimed at repairing this damage, and now as climate change imposes its footprint on the Australian landscape, it means we do not have the tools in place to adapt to these changes.

Let me put this in an economic context.

How is it that the world was able to coordinate a response with such speed and precision to confront the global credit crisis. How do we know whether the response is working?

How did we even know we were having a financial crisis? The trains are still running, the shops are full of food, the factories were still open.

The reason is that sophisticated and detailed economic accounting, developed over the last 50 years, allows us to monitor the health of and changes in our economy with incredible precision.

So why then didn't the world move with similar speed and precision when the most comprehensive assessment of the health of the world's ecosystems ever undertaken concluded that "Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history (and this has resulted in a substantial and largely irreversible loss in the diversity of life on Earth"?

The Millennium Assessment was ignored because whilst it provided an expert assessment of the state of our environment, it did not provide any institutional means by which the world could track and react to these challenges.

Let me repeat. You could count all the feathers on every bird in Australia and it would not make one jot of difference to environmental outcomes if that information is not assembled in a way that enables people to make economic decisions.

The world is confronting a global economic crisis because we borrowed more from the future than we were able to repay, and the system broke.

We are also facing the greatest environmental crisis ever to confront western civilisation for the same reason – we have been increasingly living off and degrading our natural capital beyond the ability of nature to replenish.

The difference of course is that we have a far greater ability to correct our economic mistakes than we have in correcting our environmental mistakes, because after the crisis of Great Depression the world put in place a system of economic accounts.

When it comes to environmental accounting we are still in the dark ages.

It took nearly a century of the industrial revolution to pass before we recognised the value of a systematic collection and reporting of economic statistics and developed the capacity to do so. In 1942 Australia created the first set of national accounts, using information they had available to them at the time. In doing so, they fundamentally changed the way we manage the economy.

If we are to have any hope of managing the great environmental challenges of the 21st century, we are going to have to apply the same discipline to environmental management that we apply to managing our economy.

I have brought with me copies of our Accounting for Nature model, and a copy of our address to the recent Fenner Conference which sets out our arguments in more detail.

In essence, this model produces three complementary benefits:

Firstly, it reduces the amount of information that needs to be collected to produce a systematic accounting framework that can operate at all scales, rather than require the collection of an impossibly large number of indicators (e.g. the 200 indicators still unresolved by the NRM Minco after over 10 years of argument),

Secondly, the information is in a format that indicates whether we are making a net loss or gain for investments in environmental management, and

Thirdly, the accounts can be used by any institution, for any asset, at any scale, to guide policy or economic investment decisions, because they are built from a common currency.

A Common Currency for Determining Environmental Value

The concept of a 'common currency' for environmental assets does not imply a monetary value, or any assignment of value. It is simply a means of standardising our measurement of environmental assets.

Nor does it imply that all decisions are made based on the 'currency' alone, as other factors such as urgency, priority, status, cost-effectiveness and god forbid, politics and personal preference will also have to be considered.

What it does mean, however, is that we can, for the first time, plot our environmental assets on a common scale and understand how they are tracking relative to their pre-modification (healthy) condition.

Using a reference condition metric allows the creation of a common currency not only within asset classes but between environmental assets:

it allows every asset to be compared relative to that same asset at any scale, Australia wide, even globally;

it allows us to compare the rate of change not only within each asset class, but between assets classes, and

it allows regional reporting to be aggregated to form a national, meaningful picture of the state of the environment.

With reference condition metrics it is possible to compare the relative contribution to environmental health of an investment in one creek over another, between an investment in repairing a sand dune or a eucalypt forest, or even between the creek and the sand dune.

The great value of such a benchmark metric is that it creates a common environmental currency that allows us to evaluate the environmental improvement of one action over another, at any scale, from the billions of dollars of investments we are making.

Reference condition metrics have a second advantage: they also drive cost efficiencies in data collection, because they allow areas under intense environmental pressures (significant net loss over time) to be measured with much greater precision than areas under less pressure, without diminishing the ability to compare one region with another. It allows indicator selection to be chosen at a local/regional scale, rather than the collection of a raft of data at a national scale in an attempt to satisfy all user needs where the result is redundancy.

In doing so, it allows all environmental assets, irrespective of the unit of measure, to be compared against a common standard.

Conclusion

Let me conclude by again saying that the lack of an environmental accounting framework has been one of the great failures of public policy of our generation and is at the core of our environmental problems.

The economic parallels are compelling. Our parent's generations built our national economic accounts to help correct the mistakes of the great depression and resource the second world war effort.

In doing so, they fundamentally changed the way we manage the economy by improving the stability of our economic system.

Today we wouldn't dream of managing the economy without rigorous accounting standards for our personal accounts, for business dealings and for managing the national economy.

It took nearly a century of the industrial revolution to pass before we recognised the value of and developed the capability to systematically collect and report economic statistics.

Our place in history, now demands we do for our natural capital, what earlier generations did for our economic development.

Environmental accounts are fundamental to successfully dealing with the 21st challenges of climate change and managing nature.

2009 offers the opportunity for science to stand up and support what could be one of the great environmental breakthroughs of our generation. But without your support and energy it could just as easily end up in the dustbin of history and with it our legacy.

Accounting for Nature is available as a download at:

<http://www.wentworthgroup.org/blueprints/accounting-for-nature-a-model-for-building-the-national-environmental-accounts-of-australia>

Accounting Metrics for Building Regionally Based National Environmental Accounts is available as a download at:

<http://www.wentworthgroup.org/category/articles/>

Accounting for Nature – Fenner Conference 2009 is available as a download at:

<http://www.wentworthgroup.org/members/mr-peter-cosier>

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Notes and References

¹ Wentworth Group, 2008. *Accounting for Nature. A Model for Building the National Environmental Accounts of Australia*. May 2008.

² Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-being: Synthesis*. Island Press, Washington, DC.