

## Terrible Economics, Ecosystems and Banking

Why do conservation biologists, ecologists and other natural scientists working on environmental problems feel the need to copy, or rather parody, a narrow economic discourse? At opposite ends of Europe (Austria and Norway) I have this year listened to prominent spokespersons from such disciplines making use of supposed economic values calculated for everything from wetlands to bees. Despite the problems (see Spash and Vatn 2006), values are being transferred as needed across time and space. The recommendation is for more monetary valuation and improving the techniques of environmental cost-benefit analysis amongst which stated preference methods (e.g. contingent valuation) have become predominant. When challenged the typical response is: 'I don't pretend to understand the details. Yes there may be problems and everyone knows contingent valuation is nonsense, but these numbers get attention.' Well do they and if so from whom and to what end?

For those who may have failed to notice, 2010 was declared biodiversity year by the United Nations. One attempt to gain relevance for the loss of biodiversity and ecosystems degradation as an international public policy problem followed the above approach. I refer to the project supported, by the United Nation's Environment Programme, entitled The Economics of Ecosystems and Biodiversity (TEEB), which produced its final synthesis report at the end of last year subtitled: *Mainstreaming the Economics of Nature*. Indeed the aim was to follow the global cost-benefit method of the, claimed to be successful, Stern Review on climate change (despite no noticeable impact of that report on greenhouse gas control). TEEB differs from Stern in conducting no new work but, rather, actually is a review (which Stern was not). While the project has covered much ground through a variety of reports the synthesis report is the key summary in which those driving the project show their true colours. The synthesis report is packed with monetary numbers transferred out of context and stated as if objective facts. The document is, of course, almost purely a rhetorical exercise (as was the Stern Review, see Spash 2007). The stance of those natural scientists employing the same approach, and supporting this and similar initiatives, is both rhetorical and pragmatic. Getting international reports produced and government officials to listen then seems worthwhile regardless of the means. This is New Environmental Pragmatism in action (Spash 2009).

The great success, of switching away from an ecologically driven discourse involving plural values to a monistic pseudo-economic one, is then that big business and financially squeezed governments appear to be listening. For example, the UK Secretary of State for Environment, Food and Rural Affairs, Caroline Spelman, has made the following endorsement of TEEB, being used in the publishers publicity blurb: 'We need to understand the true cost of losing

what nature gives us for free, and integrate this into our decision making across government, business and society. At the national and international level TEEB for Policy Makers helps us think about how this can be done.' In October 2010, the United Nations Finance Initiative (UNFI) published a briefing entitled *Demystifying Materiality: Hardwiring Biodiversity and Ecosystems into Finance*. This is an initiative supported by organisations such as Rio Tinto, Industrial Development Corporation, JP Morgan Chase & Co., Uni Credit Group, Credit Suisse, Citigroup, Barclays, Bank of America Merrill Lynch, and many others.

That the numbers are crude and lack theoretical foundation is actually almost irrelevant. Once in print they can be used and cited, for whatever ends seem suitable, as has been done with numbers on the value of the world's ecosystems and all remaining wild nature. In any case the real aim is not to demonstrate that Nature has value. Indeed, the big message here is that demonstrating value in money terms is not enough. No. Values need to be 'captured'. How, you might ask? Easy, through new institutional arrangements or, in other words, market-like institutions.

Traditionally the main financial and banking concerns around the topics of ecosystems and biodiversity have been damage to a corporation's reputation when it gets caught polluting or destroying the environment, although only if this is reflected in the share price. Potential impacts on a development project's finances (e.g. due to delays trying to meet regulations) have also been something to note. However, reports like TEEB, and the associated UNFI briefing, point in a different direction. They indicate that there is much for the finance and banking sectors to consider besides taking care of the risks and potential liabilities. Financial institutions can seize opportunities related to biodiversity and ecosystems services in different ways: early movers can bolster their organisation's reputation and create value for marketing practices; building capacity in-house can be beneficial in terms of advisory services for corporate clients; advising clients how to integrate biodiversity and ecosystems services in supply-chain management can lead to cost reductions for clients; and last but not least, financial institutions that understand the new and expanding environmental markets can profit through offering brokerage services, registries, or specialised funds. Nothing like a financial crisis to get the high flyers of the banking world into innovation mode.

If you thought great ideas like tradable permits might be limited to carbon markets then think again. Innovative marketing devices like wetland banking, biodiversity banking and endangered species credits are now ready, available and being implemented. The USA endangered species credit system is a biodiversity cap-and-trade system producing 'endangered species credits', which can be used to offset a company's negative impacts on threatened species and habitats. Bio-banking has been pioneered in Australia, where in 2006 a pilot project in New South Wales allowed developers to buy 'biodiversity credits'

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to offset negative impacts on biodiversity. These credits can be created by ‘enhancing’ other land (e.g. areas previously degraded by development). Then back to the USA for wetland banking, where companies or individuals undertaking development or agricultural expansion are allowed to degrade or destroy wetland ecosystems by making payments called environmental credits. As the TEEB synthesis report notes, there is big money in these schemes with the market for wetland credits in the USA estimated at \$1.1 to \$1.8 billion. No more worrying about absolute protection or annoying regulations – just opportunities to trade and create new financial instruments to capture those wild values roaming too freely for their own good.

Developers with enough ready cash will be unfettered (as if they were not already: see Veuthey and Gerber, 2011). Is this the success ecologists and conservation biologist pushing monetary values having been trying to achieve? This is not about protection or conservation this is about banking, finance and investment returns. This is about removing regulation and restrictions.

Increasing possibilities for trading financial instruments has little apparent relevance for the drivers of ecosystem degradation and biodiversity loss (e.g. human population increase, war, corruption and greed, colonialism). Changing the international banking and financial institutions to redirect development away from environmental destruction would seem to require a little more than making wild claims for the monetary value of bees. Dropping the discourse of plural values, and those discourses which empowered ecologists and conservationists in the first place, is at best misguided. Not just species are threatened but social and environmental responsibility itself.

One thing these issues raise is the over reliance on collective action and the need for alternatives. Individual action, for example, is often undermined by the argument that any one person can contribute so little that doing anything is pointless. Last year in this journal Hourdequin (2010) made an eloquent attack on the logic of such a position within the context of climate change. This issue sees her defending that stance in reply to a commentary.

As climate change has shown, misguided strategies are unfortunately not limited to ecosystems and biodiversity. In this issue Gardiner (2011) discusses geoengineering the climate. Such options arise due to the failure of governments and international organisations to take serious mitigation measures to prevent human induced climate change. How does the Royal Society suggest addressing this institutional and political failure? By using science and technology as if there were no issues of power politics. The many-faceted ethical aspects of the approach are carefully surveyed by Gardiner.

We then return to conservation biologists, who come in for criticism from Joye and De Block (2011). While noting the influence of Wilson’s writing on the concepts of biodiversity and biophilia they critically analyse the latter. This brings into question the faith shown in the evolutionary explanation for

human relationships to life-forms and the assumptions surrounding biophilia and biophobia. Further food for thought in terms of how conservation biologists perceive human motivation.

The theme of human motivation continues with Ojala and Lidskog (2011) presenting a study raising a range of interesting issues about human intervention in natural systems and the value conflicts which people feel. The life-form here (mosquitoes) is perceived as largely negative and this supports an eradication programme in central Sweden using aerial chemical applications. Reading the mixed motives and justifications seems to rather strongly contrast with an evolutionary biophobic explanation, and so lends credence to part of the argument by Joye and De Block. Short-termism, anthropocentrism, systems control and narrow species preferences seem to dominate in the Swedish case study.

A different type of value conflict concerns the endangered Moabi tree. Here we observe the spread of markets, power of developers and international trade. The conservation of Moabi is certainly not served by the extension of the commodity frontier outlined in this study. Nor would the further extension of property titles, wood trade, and monetary exchange values via TEEB or UNFI mechanisms help. Indeed the intervention of the World Bank appears as an extension of the trade problems driving exploitation. Solutions require addressing the fundamental power relationships embedded in a colonial past. Veuthey and Gerber (2011) use a feminist ecological economics perspective to explore the value pluralism and conflicts. This reveals the commoditisation of Moabi as a tool of power through which environmental valuation is imposed, claims made on the resources of the politically weak, and socio-environmental impacts on the poor are traded-off against financial returns for the rich.

The issue closes with an appeal to the concept of mercy for Nature and its inclusion as an environmental virtue to be added to virtues like love, care, respect, humility, and wonder for Nature. Being merciful then demands a different behaviour than might be legally permissible or institutionally sanctioned. Mercy does not seem to be compatible with treating another less harshly for primarily egoistic reasons, e.g. as a means of avoiding trouble or lining one's pockets. So don't expect to find mercy amongst orthodox economists' or financiers' reasons for avoiding ecosystems destruction and biodiversity loss. As Ferkany (2011) notes, environmental ethicists have seemingly tried every avenue of appeal to inspire their fellow human beings to forbear in the wanton destruction of Nature. To these he adds the prospect of a charge of mercilessness.

A new report then seems to be required. Something to explain the current merciless economics of scientists and society (MESS). Although, exploring the MESS is unlikely to be of much interest to empowered neoliberal politicians or the banking sector.

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