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**property developers conference 2005**

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## Calculating our debt to the planet

Paddy Woodworth

**Comment:** The world economy faces catastrophic meltdown if we do not calculate accurately our debts to the ecosystems which are its ultimate capital base. But, if we start paying up fast, a much brighter future is in our grasp.

That was the essence of the message from a symposium on Strategies for Restoring Natural Capital hosted recently by the Missouri Botanical Gardens in St Louis. It proved to be an unusual meeting of minds between economists and ecologists.

The symposium was not the sort of Green talk-fest you might imagine, with exhortations for us all to return to a pastoral economy and eat only brown rice. Instead, it focused first on claims that there is a glaring omission in most national accounting practices, because they do not quantify or evaluate 'natural capital'. This is made up of the essential goods and services with which the environment provides us, and which we are depleting or damaging like spendthrifts on a spree.

Participants then examined practical steps to replenish this depleted natural capital through the new science of restoration ecology.

"This is the next big thing," claimed the conference co-convenor James Aronson, an American expert in this field who works in France. Restoring natural capital, he says, will soon be as familiar a concept as coping with climate change. But it is difficult to grasp the idea at first, because it marries two disciplines which traditionally view each other with suspicion: economics and ecology.

Conventional economists tend to leave natural capital off balance sheets, while conventional ecologists often leave human nature, and human needs, out of their account of the planetary ecosystem. But they are both talking about the same place.

Natural capital comprises both renewable resources (like clean water, clean air and fertile soil) and non-renewable ones (like fossil fuels and mineral deposits). We are consuming the former much faster than they can renew themselves. We are exhausting stocks of the latter without developing adequate substitutes. The result of all this is that the planet is already living well beyond its means. The limiting factor on growth is now the availability of natural capital, not of man-made capital.

For example, it is the stock of fish, not the stock of fishing boats, that now limits the growth of the fishing industry, as the economist Herman E Daly pointed out in a letter to the symposium.

Humanity is effectively liquidating its core assets, consuming the proceeds, and undermining its ability to create future income. We are living off sales of the family silver, and it is becoming increasingly obvious that this inheritance - just think oil - is running out.

Far from predicting that Armageddon is inevitable, however, the conference heard new arguments that sources of renewable natural capital can be restored through the application of sound environmental policies and techniques. These are compatible with stable economies and acceptable standards of living for all.

Forests will flourish once more on currently denuded mountains; great rivers will again send fertile floods to their estuaries, given half a chance.

We have the technology and experience to restore much of the renewable natural capital we have lost.

But for this to happen, it is essential that restoring natural capital becomes part of mainstream economic thinking. Ecological restoration will then need significant investment. More problematically still, stocks of non-renewable natural capital must be conserved until substitutes are found.

This is novel territory for both economists and ecologists, but the cost-benefit analysis can be compelling: it would have been much cheaper to restore the Louisiana wetlands, nature's own hurricane barrier system, than to rebuild New Orleans. But that's hindsight. What we need now, participants argued, is foresight, and the will to act on it.

A new convergence between economic and ecological needs is well illustrated by the water programmes in South Africa, initiated while former TCD lecturer Kadar Asmal was minister for water affairs.

Tens of thousands of formerly unemployed people are now working on a scheme called, Working for Water. Clearing water-greedy alien vegetation from river valleys has proved more cost-effective than constructing more dams. Some of South Africa's rich ecosystems are restored, unemployment is reduced, and stocks of a crucial form of natural capital, water, are increased.

But it won't always be that simple. There are, inevitably, huge problems in reaching global agreement on how to calculate the value of natural capital, which will impinge on world trade negotiations. And ecologists cannot always tell us with certainty when natural capital depletion is approaching a point beyond which restoration would be impossible.

But it seems prudent to apply a precautionary principle here. "We should not be hovering on the brink of catastrophe," US ecological economist Joshua Farley told the conference. "When our survival is at stake we need to be standing well back from the edge."

Several issues were inadequately addressed in St Louis. There was consensus that we do not only need to invest massively in restoration, we also need to reduce consumption if natural capital stocks are to be restored and stabilised. That is an unpopular message, in both the developed and developing worlds, and there seemed to be no clear strategy for getting it across to policymakers and public opinion.

It was also evident that some ecologists are still deeply suspicious of attempting to "put a dollar value on the environment". They fear, with some reason, that a false promise of future restoration could be used to excuse continuing destruction of habitats.

Attempting to reach a synthesis, South African economist James Blignaut told the conference: "We need to treat economics as if nature mattered, and ecology as if people mattered."

The conference papers form part of the basis for a book, Restoring Natural Capital: Science, Business and Practice to be published by Island Press next year.

See [http://www.mobot.org/plantscience/CCSD/RNC Symposium/RNC Symposium.htm](http://www.mobot.org/plantscience/CCSD/RNC_Symposium/RNC_Symposium.htm)