## **BUSINESS AND THE ENVIRONMENT**

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## The greening of Bretton Woods

Graciela Chichilnisky on a plan for a new global bank to be a clearing house for the environmental market

The Bretton Woods institutions show their age. Creatures of the post-war reconstruction, they served us well for half a century. The World Bank supported development efforts worldwide, and the International Monetary Fund provided the backbone for the international monetary system during the golden age of industrial society.

But as the century turns, the industrial world's voracious appetite for natural resources threatens to change irrevocably the earth's atmosphere and its global climate. This sobering thought has prompted calls for the reorganisation of the Bretton Woods institutions.

However, they were not created for, and are not well suited to, the environmental challenge. The World Bank's proclivity for large technocratic projects has led to complaints about environmental insensitivity. It and the IMF have found that their standard recommendations for developing countries, such as exporting more resource-intensive products (fossil fuels, forest products and cash crops) at devalued exchange rates, may conflict with environmental preservation. Is the world ready for a global Environmental Protection Agency?

Hardly. Heavy-handed bureaucracy has lost its appeal. Markets are imperfect institutions, but the alternatives may be worse. The challenge now is to achieve an environmentally conservative society without hindering productivity and dynamism.

Some of the most innovative financial institutions have emerged from environmental concerns. The global reinsurance industry complements its services with "catastrophe futures", innovative instruments traded on the Chicago Board of Trade since 1992. In the US, the Clean Air Act has led to a market in sulphur dioxide emission rights.

Financial markets and the environment are natural allies. Finance is about hedging uncertainty. Environmental uncertainty, such as weather risk,

is the oldest form of uncertainty. Yet no global environment markets exist today.

How might such a market function? First, gas emission ceilings for the world and timetables for their implementation would be established. The parties at the Berlin conference on climate change last year agreed to that. The next step is to determine the emission rights of each country, and the rules by which they can trade these rights. Property rights are crucial because one needs to know who owns what within the total ceiling in order to trade.

The market discourages emissions because it increases the cost of emitting. Each unit of emission rights has a market

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value. One can either use it to emit or sell it. Unlike taxes, markets determine the costs of emissions according to supply and demand. The emissions market works as a flexible tax system.

An environmental market can bring other gains. The richest countries have money but an environmental deficit: they emit 70 per cent of global greenhouse gases even though they make up less than 20 per cent of the world's population. The developing countries are in the opposite situation: they have a credit in the environmental account, but a monetary deficit. They emit less and they house most of the world's remaining forests and biodiversity. There are natural gains from trade between the two groups of countries.

Such a market would need an International Bank for Environmental Settlements. Trading could be tricky. Selling one's rights to emit carbon dioxide, the main greenhouse gas, is selling one's ability to burn coal

and petrol. Most industrial economies would screech to a halt if they were unable to burn petrol. By selling their future rights to emit, developing countries could be selling their right to industrialise.

Borrowing and lending rights to emit may be more palatable than outright sale. The IBES could borrow short from developed countries and lend long to industrialising nations, the traditional role of a financial intermediary. Environmental bonds could be used to raise finance for environmentally valuable projects. Options and futures could bring greater flexibility and liquidity.

The IBES would act as the clearing house of a global environmental market, matching the parties to an environmental trade, mediating borrowing and lending, and ensuring the integrity of the market transactions and their settlement.

The IBES would use as collateral the environmental resources of the planet: its forests. bodies of water and its atmosphere. These are the most valuable assets known to humankind. Yet at present the only way to realise their value is by destroying them: a forest which preserves biodiversity and contributes to the atmosphere's quality is destroyed to sell the wood of its trees for pulp, or burned to give way to arable land. The IBES would help realise the value of environmental assets without destroying them. It will balance out the positions of large and small traders by offering a neutral trading base for all, and provide an anonymous process where several small sellers can meet a few large buyers.

The IBES could be an important part of the restructuring of the Bretton Woods institutions to meet the needs of today's mature industrial societies, as well as those of the industrialising countries.

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