

Emergence of the Environment as the next Great Commodity Boom

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Introduction

The global economy is approximately \$USD55 trillion per annum, and will increase by 80% by 2020, and fourfold by 2050¹. Speth (2004) notes that over the past twenty years global population has increased 20%, yet world economic output increased by 75%, energy use expanded by 40%, meat consumption rose by 70%, automobile production grew by 45%, and paper use increased by 90%. In fact the WWF has recently suggested that natural resource consumption is now running at 120% of carrying capacity².

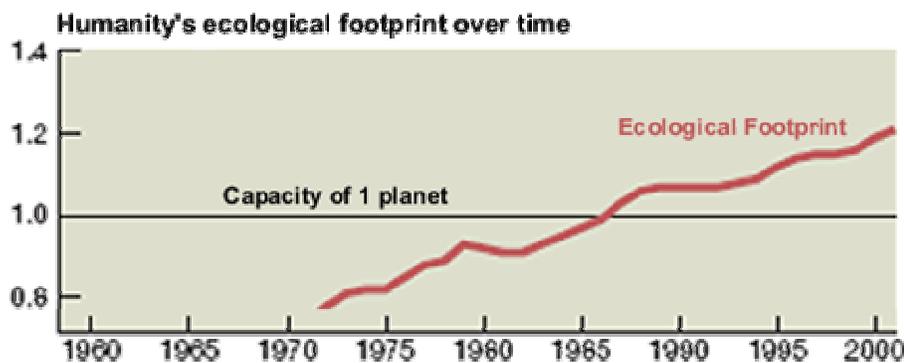


Figure 1. The human 'footprint' or ecological impact on earth.

The increasing pressure on these natural systems is being expressed in three great challenges for the 21st century—the build-up of greenhouse gases in the atmosphere, and resulting global climate change; the degradation of land and unsustainable use of freshwater resources; and the loss and degradation of biodiversity. These global environmental issues are in turn increasingly being translating into a set of priced global commodities—based on carbon, water and biodiversity.

¹ See for example Speth, J.G. 2004. Red Sky at Morning. Yale University Press, New Haven Connecticut, and US Central Intelligence Agency Publication, "Mapping the Global Future", (http://www.cia.gov/nic/NIC_globaltrend2020_es.htm).

² WWF. 2004. Living Planet Report. (available at <http://www.panda.org/downloads/general/lpr2004.pdf>)

Environmental Commodities

The climate change issue has spawned the first global environmental commodity market. As governments, business and private citizens seek to reduce greenhouse gas emissions, a set of market-based instruments for greenhouse gas emissions reductions have emerged. While the Kyoto Protocol has been the major international agreement, and defines many of the rules for emissions trading, there are a range of markets now emerging. The global carbon market is surging, will represent over \$USD5 billion in transactions this year, and is doubling each year.

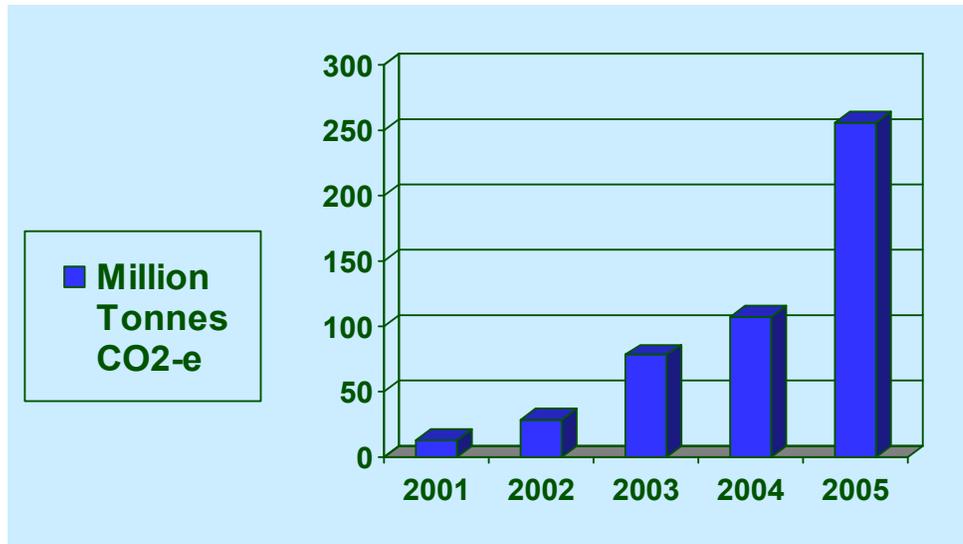


Figure 2. The global carbon market is expanding rapidly.

Water is a second international environmental commodity, and water rights and entitlements are being privatized and made subject to trading in regions around the world. As water use is a primary determinant of agribusiness productivity, growth in agricultural commodities will be affected by water price, water quality and the ability to increase water use efficiency. For example, a quadrupling of agribusiness output to meet growing needs for grains, meat and horticulture, will likely require a quadrupling in water use efficiency, and lead to a quadrupling or more in the value of water.

Finally, the value of biodiversity is now also being reflected in a range of market-based instruments, including tradable fishing quotas, tradable development rights, wetlands banks, endangered species banks, riparian zone reserves, conservation easements, and biodiversity offsets³. It has recently been estimated that wetland and endangered species banks in the United States are now worth \$USD1 billion and growing.

Gaining Exposure to Environmental Commodities

³ See for example www.ecosystemmarketplace.com for news and information on these markets.

The global carbon market has now spawned a range of environmental commodity funds, including the Greenhouse Gas Credit Aggregation Pool (see www.natsource.com), Climate Change Capital (www.climatechange-capital.co.uk), and the World Bank Prototype Carbon Fund (www.prototypecarbonfund.org). These and other similar funds now total approximately \$USD2 billion in committed capital, primarily to acquire carbon offsets or credits for compliance purposes or as a speculative investment. Some funds are now emerging that will buy a range of environmental allowances and credits under the assumption that these things will increase in value over time (see for example www.rnkcapital.com).

There are also a growing number of infrastructure, forestry and land management funds that seek 'embedded options' from carbon trading, water rights, and biodiversity instruments. For example New Forests (www.newforests.com.au) is a specialized forestry asset management and advisory firm that seeks investment opportunities that provide exposure to these emerging environmental commodities in the forestry sector. In many cases the environmental credits and values are additive to or exceed the returns from traditional timber or commodity values.

Figures in AUD\$ (Assume NPV based on 9% real discount rate)

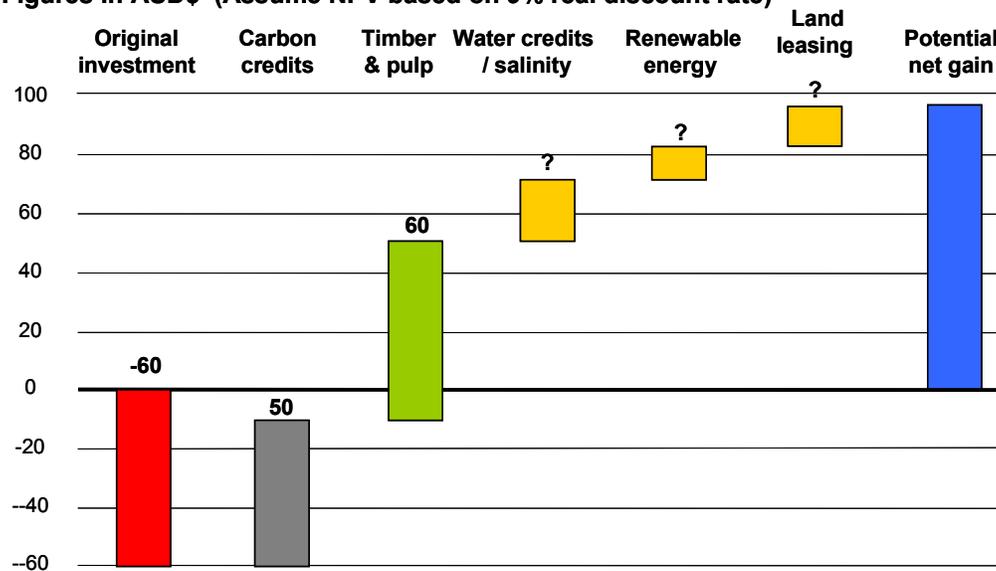


Figure 3. Adding environmental credits, rights and payments can substantially increase returns from land management.

Conclusion

With increasing pressure on the atmosphere, land and water resources, and natural systems, we are seeing a new suite of environmental commodities emerge. Given that natural resources are finite, the increasing global economy and resultant rates of consumption will drive the value of these environmental commodities. It can be expected that as environmental commodities systematically rise in price, they will become key determinants of agribusiness, forestry, fisheries, energy, minerals, materials and transport. Commodity investors should begin to understand these new markets and how they affect both traditional commodity pricing, as well as the new opportunities that they provide for portfolio diversification.

