

SAFEGUARDING OUR NATURAL CAPITAL

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We all have an intrinsic understanding that an economic value can be put on the environment. A flat in Brighton with a sea view will be more expensive than one three streets back. A house with a view of the beech woods in Bucks will command a higher price than one overlooking a gravel pit. We often identify the cost of mopping up the environmental damage perpetrated by an oil spillage on our coast, but does the Government keep a tally in its asset register of the value of the ecosystem for which it is responsible? What steps do we take to ensure that this increases year on year rather than being eroded? A recent WWF report states that the world's wetlands are worth US\$70 billion annually because they are important for controlling flooding, filtering water and as recreation amenities. Yet the UK has lost half of its wetlands¹. We are now beginning to see the value of creating a viable market for carbon to help reduce emissions and tackle climate change. It is time we do so for those services our natural environment provides for which no market value exists, before it is too late.

Demands on our ecosystems and the services they provide are rocketing. With a growing population to sustain and increasing demand for water, food and energy, today's world is facing problems of an unprecedented scale. The world has been rocked by the scale of the current financial crisis – the ecological crisis posed by depletion of our natural capital will have more far-reaching and devastating consequences. To highlight this issue the Natural Capital Initiative (NCI) – a partnership of the Institute of Biology, the Centre of Ecology and Hydrology, the British Ecological Society and the Science Council – has been created.

Natural capital is vital to our social and economic well-being. Human well-being depends on healthy, functioning ecosystems because of the range of services they provide: food, fresh water, timber, clean air, soil formation, climate regulation, as well as the cultural and aesthetic enjoyment we derive from nature. Over time, human activity has changed ecosystems to derive social and economic benefit. However, this has not always been sustainable or for the benefit of all mankind, and there have been unintended consequences on ecosystem health. The NCI proposes that to ensure the health and prosperity of future generations, we must reconsider how to feed and sustain a growing population whilst safe-guarding ecosystems and the services they provide.

The Millennium Ecosystem Assessment recently reported on the consequences of ecosystem change on human well-being. The report urges a more sustainable approach to human social and economic development, and promotes the use of an 'ecosystem approach' as a guiding framework to achieve this. The 'ecosystem approach' is defined as a holistic strategy for the integrated management of land, water and biodiversity to promote conservation and sustainable, equitable development practices. This approach inextricably links human well-being with the health of ecosystems

ensuring that development today does not compromise the needs of future generations. There is growing support for this as a framework for sustainable development from many quarters including the Department for Environment, Food and Rural Affairs (Defra); the Convention on Biological Diversity; the World Resources Institute, and the International Union for Conservation of Nature.

An important question we face today is how to make the ecosystem approach operational? NCI will work to achieve this through identifying gaps in current research, policy and its implementation. By engaging with policy-makers, industry, and different research disciplines (including environment, economics, humanities, health and psychology), the initiative will help link research and policy to develop further understanding around the management and valuation of ecosystem services. The initiative will also create opportunities for constructive debate on the benefits and trade-offs in implementing the ecosystem approach that will be broadened to include public and private sectors.

The aims of NCI fit well with a number of government objectives, most notably the recent cross-government priority (laid out in the Comprehensive Spending Review 2007) to "Secure a healthy natural environment for today and the future". NCI activities and outputs will also feed into a new ten year programme – Living with Environmental Change (LWEC). The LWEC programme is run by a partnership of government departments and related agencies and Research Councils UK. It will provide the evidence required by decision-makers to manage effectively and protect vital ecosystem services to mitigate the economic impact of environmental change.

The first major activity of NCI is a three-day multi-stakeholder symposium from 29 April to 1 May 2009 in London. This will explore mechanisms for assigning value to the services provided by ecosystems to inform decision-making in the face of often conflicting economic and social demands on our natural capital. The first day will set out the challenges involved in implementing the ecosystem approach to achieve this. This will be followed by two days of focused workshops where delegates will identify gaps in science and policy and start to provide potential solutions. A report highlighting the findings of the symposium with details of how NCI plans to progress them will be published. In order to bring the importance of sustainable development and the ecosystem approach to a wider audience, a campaign will be developed with the Science Media Centre ahead of the symposium. There are currently places available. Further details can be obtained by making contact below.

During the next three years NCI will continue to promote the importance of valuing our natural capital by creating a central web-based information resource and organising further workshops and events to build on outputs generated from the symposium.

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1. http://www.wwf.org.uk/article_search_results.cfm?uNewsID=991