



THE WOODLAND TRUST RESPONSE TO THE STERN REVIEW ON THE ECONOMICS OF CLIMATE CHANGE NOVEMBER 2005

The Woodland Trust welcomes the opportunity to submit this short memorandum to this review. The Trust is the UK's leading woodland conservation charity. We achieve our purposes through a combination of acquiring woodland and sites for planting and through advocacy of the importance of protecting ancient woodland, enhancing its biodiversity, expanding woodland cover and increasing public enjoyment. We own over 1,100 sites across the country, covering around 20,000 hectares (50,000 acres) and we have 300,000 members and supporters.

We would like to make the following observations chiefly focussed upon adaptation strategies for the natural world and the building of public awareness.

1. Background

1.1 Evidence for accelerating climate change has built relentlessly over the past few years. Global average temperatures have increased from 13.7°C to 14.3°C in the last 100 years; the 1990s was the warmest decade in the last 1,000 years; many ice sheets and glaciers worldwide are retreating; the frequency of floods, droughts and storms is increasing; populations, ranges, migration patterns, and seasonal and reproductive behaviour of animals and plants, on land and in the sea, are changing. **The evidence that these changes are caused principally by human activity releasing greenhouse gases is now incontrovertible and necessitates, we believe, a shift in the deployment of public funds.**

2. Adaptation

2.1 The report of the House of Lords Economic Affairs Committee on the economics of climate change published in July 2005 stated that: "We reiterate our concern that adaptation measures have become the Cinderella of the negotiating process".¹ This is an assertion which we would strongly support and we believe that more work is needed on costing the consequences of not acting, building on the work carried out to date by the Association of British Insurers.

2.2 There is also an urgent need for action on helping the natural world adapt to the impacts of climate change. Addressing this dimension is crucial both in terms of securing natural resources - the life support system upon which we depend, and also in terms obtaining value for money from existing conservation spending. Properly focussed adaptive action for nature can also deliver a whole range of wider benefits to society. A team of leading global economists concluded that the global economic value of nature's services is about \$38 trillion, roughly equal to the global economy itself². A further study published in 2002 by the RSPB concluded that the irreplaceable value of wild nature is at least \$20 trillion a year.³

2.3 At the UK level, work is ongoing to quantify the amount of money spent on delivery of the UK Biodiversity Action Plan but the amount spent by organisations which are members of the NGO Wildlife and Countryside Link coalition alone is estimated at £185m per year. Work on the biodiversity action plans contributes to placing habitats and biodiversity on a more sustainable footing in the face of climate change and it is important that biodiversity funding does not suffer cuts which would slow the progress that has been made on this matter.

¹ House of Lords Select Committee on Economic Affairs. 2nd report of Session 2005-6. The Economics of Climate Change, para 137.

² In \$2000. Nature 387: 253-260 (1997)

³ BirdLife International/RSPB (2002) *Unravelling the web; the global value of wild nature*



2.4 Another key dimension is the huge role played by our natural heritage in relation to the tourism industry. Research done for the Forestry Commission in 2003 showed that forest related tourism expenditure, associated with day visits is estimated to be around £2.3 billion.⁴ The future impact of climate change in this regard must also be taken into account.

2.5 While ongoing work is clearly part of the work needed in order to adapt to climate change there are already legislative frameworks in place on which we have to deliver such as the Water Framework Directive, Convention on Biological Diversity and the Habitats Directive. We therefore need to ensure that all the existing costs are factored in but avoid double counting them.

3. Climate Change Proofing

3.1 Climate change 'proofing' of existing policy in order both to safeguard the contribution nature makes and ensure best value for public money should therefore be an essential component of any attempt to address the economics of climate change. It is vital that all government policies are climate proofed to ensure that at worst their impact on climate change is minimised and at best they actually make a contribution to emissions cuts. Departments such as Transport, ODPM and the DTI must take a more responsible approach to this issue. In addition, policies such as the school building programme and investment in hospitals should be climate proofed by introducing limited design changes and emphasis in build, huge gains could be made for little extra cost – for example by encouraging micro-generation in schools.

3.2 The commitment of EU Governments to halt loss of biodiversity by 2010 suggests a strong need to focus action upon this the greatest threats to biodiversity. To an extent this is beginning to happen but much greater urgency is required. There is a need to implement adaptation strategies to conserve and create landscapes that will be welcoming to wildlife in a time of rapid climate change. The urgency is because of the scale of action required and the timescale needed for habitats to develop to maturity.

3.3 In their current state, key habitats such as ancient woodland are simply not sustainable in a time of rapid environmental change, given their fragmented character and the immobile nature of many of their characteristic species, many of which are locked in by the present environmentally hostile landscape within which such habitats exist. It is now widely accepted that the species compositions of semi-natural habitats will change considerably. The recent research programme MONARCH – (Modelling Natural Resource Responses to Climate Change), undertaken by the Environmental Change Institute at Oxford for a consortium of Government agencies and NGOs, used models to analyse the impact on future location of suitable 'climate envelopes' for a number of species. The research clarifies the need to allow for spatial movement of species in response to climate change which, coupled with the existing problems of landscape fragmentation, provide some key pointers for adaptive action which should be at the heart of an expanded adaptation section in the revised UK Climate Change programme and a priority for future investment.

3.4 Where there is a greater research need however is with regard to the wider socio-economic benefits of action to help biodiversity adapt at a landscape scale (by this we mean looking out from sites rather than simply in on them which has been the traditional approach to conservation in the form of the SSSI system) in pursuit of genuine 'win-win' SD scenarios. Whilst there have been considerable moves forward both in research on the need for landscape scale adaptive action over the last four years and also work on the socio-economic benefits of the environment, there is a dearth of research on the latter which allows it to be extrapolated from the site scale to the landscape scale, e.g. in relation to soil erosion, air and water quality, flood alleviation, high quality food, health, employment, recreation etc. For example, the Government's proposals for developing a strategy for flood and coastal erosion need to look we believe, beyond the impact on SSSIs within floodplains and address the impact on surrounding land.

⁴ Hill, Courtney, Burton, Potts (2003) Forests Role in Tourism: Phase 2. Summary Report – Final for the Forestry Group (Economics and Statistics) of the Forestry Commission



3.5 Similarly, whilst it is encouraging that UK Climate Impacts Programme has an increasingly sophisticated toolkit to carry out assessments of climate impacts and plan adaptation scenarios we believe it is essential that the socio-economic research be in place if the necessary wider buy-in from business and society is to be achieved. Such research lends itself well to a collaborative approach encompassing public, private and voluntary sectors.

3.6 There is also a strong case for a national planning policy statement on climate change. As a coalition led by the Town and Country Planning Association and including the Woodland Trust have argued, a national statement on climate change could make a major contribution to promoting effective action on the Government's current climate change policy. In particular by clarifying the weight to be accorded to climate change in the decision making process making clear that climate is at least as significant as other 'traditional' material considerations'.⁵

4. Flood Risk

4.1 One of the strongest examples of wider benefits of adaptive action through the kind of strategies outlined above is in relation to flood risk. The Association of British Insurers has suggested that in the UK, climate change could increase the annual costs of flooding by almost 15 fold by the 2080s under a high-emissions scenario leading to potential total losses from river, coastal and urban flooding of more than £22 billion.⁶ It went on to suggest however that taking account of climate change in flood management policies, including controlling development in floodplains and increasing investment in flood defences could limit the rising costs of flood damage to a four-fold increase (£5.3bn).

5. Communication

5.1 Finally, one of the most important and overlooked dimensions in relation to the economic impact of climate change is the cost of a failure to heighten public awareness. The achievement of enhanced public understanding should be a particular priority and such work should be a funding priority for Government. Citizen science has an especially important role to play in this regard through the promotion of mass observation of signs of climate change. The Woodland Trust is a lead partner in the UK Phenology Network (UKPN www.phenology.org.uk) along with the Centre for Ecology and Hydrology (CEH), the largest phenology network in the world. The 'Springwatch' partnership also has 100, 000 participants. We feel that our success in inspiring thousands of people to get involved and record for themselves the impact of climate change on the plants and animals in gardens, parks and woods is of considerable relevance to the raising of awareness about climate change (and its impact on the natural world.) It provides a simple but meaningful way for people to engage with the issue and make a difference. The scientific data resulting from this research was alluded to in the Prime Minister's speech on climate change last year.⁷

5.2 We have also just launched www.naturedetectives.org.uk extending phenology to 4-18 year olds. Feedback from our recorders makes it clear that recording really opens their eyes to nature, and how nature is changing, and they are proud to feel part of a community that is really 'doing something' to make a difference. A natural next step is to consider one's own lifestyle, embracing the climate change message, based on what they have seen with their own eyes. The development of such awareness at an early age will be crucial in reducing the future economic burden imposed by climate change.

⁵ TCPA (2005) Planning and Climate Change: A failure of delivery

⁶ Association of British Insurers (2005) Financial Risks of Climate Change

⁷ Prime Minister Speech on Climate Change 14 September 2004



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