

Funding for Biodiversity



An analysis of the UK's spend towards the 2010 target

Biodiversity is essential to the health of the planet and underpins the delivery of the ecosystem services upon which we all depend for our well-being. There are strong ethical and scientific reasons for conserving and enhancing biodiversity but also a growing awareness that the ecosystem services that biodiversity provides are essential for sustainable development and economic prosperity - both in the UK and internationally.

The United Kingdom (UK) has made both domestic and international commitments to conserve biodiversity and to use biological resources sustainably. The most stringent target, that of not only slowing by 2010 the rate of biodiversity loss (the global target) but halting the loss of biodiversity, was first adopted in 2001 by the European Union (EU) in its Strategy for Sustainable Development. Understanding the economics of biodiversity conservation, both costs and benefits, is essential if we are to develop a coherent strategy for achieving our biodiversity objectives.

This paper summarises the findings of a review¹, undertaken for the IUCN UK National Committee², into whether the UK is allocating sufficient funding to achieve the 2010 biodiversity targets. Whilst it is the UK government(s) and the EU who are committed to specific biodiversity targets, achieving them will necessitate action by all sectors and economic agents. For this reason, this paper also considers funding of biodiversity conservation by NGOs and by the business sector.

This review follows the priority objectives established in the EU's 2006 *Communication on Biodiversity*³, for which it may reasonably be assumed that some estimate of spend and costs may exist. Six of its objectives have been examined to varying degrees, namely:

- addressing priority habitats and species;
- actions in the wider countryside and marine environment;
- making regional development more compatible with nature;
- reducing impacts of invasive alien species;
- support to biodiversity in international development;
- adaptation to climate change.

The remaining priority objectives, to strengthen international governance, reduce the negative impacts of international trade and strengthen the knowledge base have financial implications but are possibly the hardest to estimate costs for and so have not been considered.

Estimating the costs of funding biodiversity conservation is subject to a great deal of uncertainty and depends upon a number of large assumptions. Establishing what is actually spent, or what should be spent, in relation to the 2010 targets poses significant problems. There is also a broad range of possible actions, with varying cost implications, which could be implemented to redress biodiversity loss but little research has been done to estimate the costs and benefits of the various approaches. For these and other reasons, where estimates are presented in this report, they should be taken as being indicative only of the scale of actual or desired funding.

1 Morling, P., 2008. Funding for biodiversity: an analysis of the UK's spend towards the 2010 target. IUCN UK Committee, Peterborough; available at www.iucn-uk.org/Default.aspx?page=1113

2 www.iucn-uk.org

3 http://ec.europa.eu/environment/nature/biodiversity/comm2006/index_en.htm

What should the UK Government be spending ?

Addressing priority habitats and species. Domestically, the UK Government is estimated to spend £294 million a year to achieve Habitat Action Plan targets under the UK Biodiversity Action Plan (UKBAP). Desired spend to achieve the targets is estimated at £321.6 million per year leaving an annual shortfall of £27.6 million. This is a conservative estimate. The UKBAP has been revised since these costs were estimated and there are now a number of priority areas and actions not originally covered by the UKBAP. For the marine environment, the impact assessment of the draft UK Marine Bill contains some estimates of the funding required to establish a network of marine conservation zones (MCZ). While work in this area is on-going, current research suggests a conservative requirement of £13 million per year for MCZs. Effective conservation of the marine environment will also depend on additional planning, monitoring and surveillance measures. For the UK Overseas Territories, current expenditure in support of priority habitats and species is estimated at £2 million per year. Required spend to undertake priority actions is estimated at £16 million per year, leaving a shortfall of £14 million.

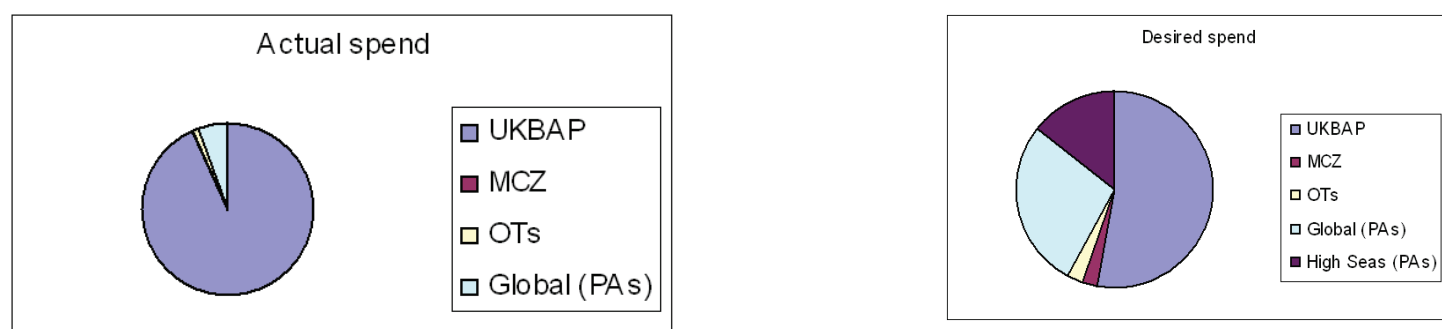


Figure 1. Estimates of actual (£314m) and desired (£608m) spending by the UK on priority habitats and species; all figures in GB pounds sterling (area of pie charts indicates relative size of funding).

UKBAP – UK Biodiversity Action Plan; **MCZ** – Marine Conservation Zones; **OTs** – UK Overseas Territories; **Global (PAs)** – global conservation (especially protected areas); **High Seas PAs** – high seas conservation (especially by protected areas).

Globally, it is estimated that the UK Government spent £20 million in 2006/7 on biodiversity related areas; we assume this is predominantly devoted to priority habitats and species as large components include contributions to the Global Environment Facility (GEF) and the Darwin Initiative. Internationally, if we assume that countries in the Organisation for Economic Cooperation and Development (OECD) were to agree to meet half the costs of maintaining an effective protected area network in developing countries, the UK's share of such a commitment would be £169.4 million per year. This is equivalent to £3 per head of the UK population.

The same assumption is made for the costs of establishing marine protected areas in the high seas beyond national jurisdiction. The cost to the UK Government would be £88 million a year, equivalent to just £1.50 per head of the UK population. Estimates for overseas spend and the high seas are based on a number of very crude assumptions but do suggest that current funding is woefully inadequate to ensure the world's priority habitats and species are effectively protected. The combined estimate of additional spending required for the Overseas Territories and terrestrial and marine protected areas is £253.4 million.

Actions in the wider countryside and marine environment. There is an estimated major shortfall in funding the UKBAP in relation to actions for widespread species (those occurring in areas beyond protected sites) of around £310 million per year; actual spending is around £23.3 million. This is in stark contrast to the more modest shortfall in funding for priority habitats but it does suggest that, overall, the UKBAP funding shortfall amounts to £338 million per year. For marine habitats, it has been estimated that to provide effective environmental management inshore fisheries management requires an additional £5 million per year, above the £5 million actually spent; these costs are included in the assessment for the UK Marine Bill. Overall then, this gives further additional spending requirements of £315 million. There are also a number of critical threats to biodiversity, such as diffuse pollution and pesticide use, which will need to be addressed if biodiversity is to be protected and enhanced in the wider landscape. Costs involved in effectively addressing these issues will run into the millions of pounds but it has not been possible to estimate these. The distribution of costs will depend in part on the extent to which the government adopts the 'polluter pays' principle.

Making regional development more compatible with nature. Many of the actions required to achieve this objective relate to legislation, regulations and the effective adoption of decision support tools such as Strategic Environmental Assessment. These will entail costs but no attempt is made to quantify these. Only one additional cost is noted under this objective. As part of the 2003 government spending review for England and Wales, an estimate was made of funds required for Local Authorities to achieve biodiversity targets. The estimate of £38 million was roughly four times the annual spend at the time.

Reducing impacts of invasive alien species. Defra (UK Department for Environment, Food & Rural Affairs) identify current spend of £13 million for Great Britain and identify costs of control and eradication for a number of species. Costs vary widely and suggest that spending in excess of £1.5 billion would be required to eradicate or control some of the major problem species; some costs would be recurring for ongoing control measures. No estimate is made here of the additional required spend to offset the damage done by invasive species to biodiversity or of the costs of preventing future species becoming established (but which may be most cost-effective in the long run). The costs of eradicating established invasive species suggest that substantial additional funds could be necessary but such spend could also yield significant benefits in terms of reducing the negative impacts of invasive species upon ecosystem services.

Support to biodiversity in international development. As noted above, the government estimates that it spends £20 million p.a. globally in support of biodiversity beyond the UK. We assume the bulk of this was spent in support of priority habitats and species rather than being 'mainstreamed' through Overseas Development Assistance (ODA). Identifying what is spent through ODA on biodiversity and what should be spent through ODA pose insuperable problems and no estimate is attempted here. **There are a variety of ways in which biodiversity considerations can be better mainstreamed in ODA. The extent to which this is achieved will ultimately depend upon the degree to which the contribution of biodiversity conservation to poverty eradication, climate change mitigation and livelihood enhancement is recognised and properly valued.**

Adaptation to climate change. It is known that land-use and biodiversity management can play an important role in climate change mitigation and adaptation strategies. Such adaptation needs to conserve ecosystem services if it is to contribute to sustainable development. Ensuring the wider countryside is managed in ways that facilitates the future movement of species in response to climate stresses or new opportunities is vital. The additional costs of the effective management of our existing protected areas are already included above, the costs (not estimated) of making the landscape more 'permeable' being additional. No estimate is made here of the value of ecosystem processes which capture and store carbon but whose benefits may be significant in climate change mitigation.

How much do NGOs contribute?

Defra have estimated spending by some UK NGOs on domestic biodiversity as £144 million with a further £15 million estimated as overseas spend. This estimate did not cover all organisations and NGO accounting practices made it hard to separate domestic from international spend. On the basis of these tentative estimates, NGO spend on biodiversity is equivalent to 39% of the Government's domestic spend and around 75% of the Government's overseas spend on biodiversity.

This highlights the fact that UK NGO's are important funders of biodiversity conservation. However, analysis of charitable giving in the UK reveals that biodiversity conservation is a very low priority for grant making trusts accounting for <0.5% of total grants made.

Can business spend be estimated?

Business activity, the way we produce and consume, has large and pervasive impacts on biodiversity. Most drivers of biodiversity loss are, at heart, economic. Some business spend on biodiversity could be identified relatively easily but would not give a true picture of the impact a business entity has on biodiversity. For business, it would be more appropriate to look at their net impact on biodiversity rather than a gross measure of financial contributions to biodiversity enhancing activities. There are numerous ways business and biodiversity might interact but no attempt is made here to derive an estimate of what businesses should or do spend on

conserving biodiversity. A number of indicators are possible which could provide useful trend information on how pro-biodiversity the business community is. An example would be percentage of turnover spent on biodiversity programmes. Ensuring business acts in a pro-biodiversity way will entail systemic changes to production processes, energy, resource and waste management, supply chains and reporting.

Using environmental policies to accelerate change in these areas may have a significantly greater impact on biodiversity rather than measures aimed at encouraging business philanthropy.

Incorporating economics into reporting frameworks

A number of reports reveal aspects of the state of UK and global biodiversity. Incorporating economic factors helps make explicit the links between the way we manage biodiversity and the prospects of enhancing human well-being. Economics is explicit in Millennium Ecosystem Assessment type reports which adopt a form of the 'pressure-state-response' framework and assess impacts on ecosystem service delivery. The opportunity costs of conservation vary widely across the globe and understanding costs can enable conservation objectives to be achieved more cost-effectively. While greater consideration of the economics of conservation can improve biodiversity outcomes, biodiversity considerations must also become incorporated within economic reporting systems, such as national accounts and in decision-making tools, such as appraisal guidelines and Strategic Environmental Assessments.

Key Messages

- The 2006 EU Biodiversity Communication is framed within the context of the contribution of biodiversity to human well-being. Traditionally, nature conservation has tended to focus primarily on actions for priority species or habitats. Significant funding in the UK has enabled a high degree of success to be achieved by these traditional approaches.
- Even so, estimating the funding for such activity is subject to a degree of uncertainty and depends upon a range of assumptions and the results here are indicative only. Despite the considerable UK funding for biodiversity conservation, by government and NGOs, significant shortfalls with respect to desired spend are evident. By contrast, the UK's contribution by direct funding to biodiversity conservation overseas is relatively limited and the shortfall commensurately greater.
- Beyond the UK, population trends, economic growth and the imperatives of food and energy security place increasing pressures on land, fisheries and natural resources. Understanding the fundamental contribution of healthy functioning ecosystems to human welfare helps to emphasise that biodiversity conservation frequently makes sound economic sense.
- However, there has been little research into the costs and benefits of different funding approaches and which work best. A shift from a traditional conservation approach into, for example, incorporating recognition of the need to conserve ecosystem services into overseas development aid and the poverty reduction strategies by developing country partners⁴ is likely to achieve greater gains in the long term.
- Ultimately, biodiversity conservation strategies are likely to be better funded and to be more sustainable in the long-term if the range of services that biodiversity provides is far better understood.

