

PLAS TAN Y BWLCH
A DUTY FOR BIODIVERSITY: DELIVERING BENEFITS FOR ALL
OCTOBER 12–14 2009

SUMMARY OF PRESENTATIONS

DAY ONE: SETTING THE CONTEXT

1. What is Biodiversity and why is it important? (Joanna Robertson, CCW)

“Biodiversity is life”. The nature conservation/biodiversity agenda worldwide developed rapidly from 1950s onwards, in line with awareness of increasing population growth and development pressures. The work of the United Nations, IUCN and WWF was fundamental in raising these issues and identifying the need to 'live within environmental limits'.

In 1992 over 190 countries signed the Convention on Biological Diversity (CBD) and individual countries committed themselves to setting out how they would address biodiversity loss. An important element of the Convention was the recognition that addressing biodiversity loss was a shared responsibility and that everyone had a role including politicians, businesses, the public and the voluntary sectors. For recent developments see the following web links:

The Convention on Biological Diversity: <http://www.cbd.int/>

Millennium Ecosystem Assessment: <http://www.maweb.org/en/index.aspx>

The UK Millennium Ecosystem Assessment: No web link yet

The Economics of Ecosystems and Biodiversity: <http://www.teebweb.org/>

IUCN: <http://www.iucn.org/about/>

WWF: http://www.wwf.org.uk/what_we_do/about_us/

2. Update on the Biodiversity Duty: Scotland (Gareth Heavisides, Scottish Executive)

In Scotland the Legislation is the Nature Conservation Act Scotland (2004) and the wording is “to further the conservation of biodiversity”.

The Duty is for “every public body and office holder”. The Duty means that Officers should think about the impact on and the opportunities for biodiversity as part of their work.

Other duties include:

- The need to have a biodiversity strategy;
- The publication of a list of priority species and habitats for Scotland;
- The need to report to Parliament every 3 years on progress.

Responsibility has been devolved to the local authorities and the LBAP Officers need to fight their own corners to secure funds.

The key driver within Scottish Government is Sustainable Development.

3. Update on the Biodiversity Duty: England (Duncan Williams, DEFRA)

Legislation is The Natural Environment and Rural Communities Act (2006) Section 40 and 41 (England). The wording in Section 40 is “to have regard for biodiversity” – the Duty is for government and all public bodies. Section 41 commits DEFRA to developing a list of Species and habitats of principle importance for England and to “further the conservation of species and habitats on the list” and also encourage others to do the same.

Elements of delivery of the duty have been built into the England Biodiversity Strategy; building biodiversity into the functions of authorities not adding it on at the end is the key. This is challenging and there is a need to stimulate culture change that will lead to a positive effect on biodiversity. Duty has helped to build biodiversity into government departmental advice and guidance.

DEFRA is currently involved in a review of the Duty that is looking at how public bodies have responded to the duty in England and Wales and is comparing this to Scotland; a report is due out in March 2010. A survey stimulated 350 responses and there will be follow-up in depth interviews with a sample and a stakeholder workshop.

4. Update on the Biodiversity Duty: Wales (William Somerfield, Welsh Assembly Government (WAG))

Legislation - is the same as England except it is Section 42 rather than 41 and reference is to the Welsh Assembly Government rather than DEFRA.

“Have regard” in Wales has been interpreted as “have regard and act” (lawyers have looked at this). Work is ongoing to encourage WAG Departments to take note of the Duty including circulation of Leadership Briefs.

Biodiversity Champions have been identified at Cabinet level in all the 22 local authorities and the 3 national park authorities and all have been visited by the Wales Biodiversity Partnership (WBP). There will be follow up visits this year (2009/10). Each meeting identifies actions to be taken and these will be reviewed and progress/issues identified at the follow up meeting.

Biodiversity Checklists have been written for various sectors. Please visit:

http://www.biodiversitywales.org.uk/legislation_guidance-20.aspx

Jane Davidson, AM - Minister for Environment, Sustainability and Housing is very supportive and has a strong interest in implementation of the Duty.

Update on the Biodiversity Duty: Northern Ireland

Legislation: “A Duty for Biodiversity” is being proposed as part of the new *Wildlife Order*; it will be a duty “to further the conservation of biodiversity”. Another proposal is that the Biodiversity Strategy will become statutory.

DAY 2: BIODIVERSITY, HEALTH AND WELL-BEING

1. Biodiversity and well-being: diets, disease, drugs and disasters (Conor Kretsch, COHAB)

Biodiversity underpins the ecosystem goods and services that support human well-being. The benefits of biodiversity conservation include a range of direct and indirect benefits to public health. A healthy human population can only exist when supported by a healthy environment. Some problems can be offset by trade and technology, but not for all people, and often not without entailing other unsustainable social, economic or environmental costs. Health issues linked with biodiversity include: dietary health and nutrition, disaster risk reduction, infectious and non-infectious disease, drug discovery, mental health, and medical research.

The Convention on Biodiversity recognises people as part of biodiversity and the Millennium Ecosystem Assessment (MA) (2005) looked at ecosystems and human well being. See MA Health Synthesis report at: <http://www.millenniumassessment.org/en/synthesis.aspx>

The MA showed that over 60% of ecosystem services studied are being degraded by human activity, some beyond their ability to recover or to meet our future needs. Extinction rates are also accelerating rapidly and ecological footprints (particularly for western nations), are growing. Where ecosystem goods and services are degraded, communities may become more dependent upon those goods and services they can obtain from elsewhere, causing a shift in the burden of environmental impacts and responsibilities.

The diversity element is critical. We need to conserve individual species, genetic diversity, and habitat assemblages in order to ensure resistance and resilience to environmental change. We often don't know how much diversity we can afford to lose - continued loss inevitably leads to loss of function and service and at some point complete collapse of the ecosystem and complete loss of service.

Health is a dynamic concept, linking a range of social, economic and environmental issues; it can cover mental and physical well-being, social cohesion and livelihood security. It is important for the conservation community to engage with the health sector so that areas of common interest can be identified, and so that interconnected issues can be appropriately resolved. The work of COHAB addresses all these through cross-sector partnerships with various stakeholders, with focus on elements relating to poverty and the Millennium Development Goals.

Livelihood security and freedom from poverty: Billions of people in developed and developing countries depend directly on biodiversity for their income.

Food, diet and nutrition: All food production systems are based on biodiversity. Traditional diets can help alleviate poverty. Diverse diets can maximise health and reduce burdens/risks of disease.

Emerging infectious diseases: Tied into disease ecology e.g. SARS, Ebola and HIV appeared in human population through interactions with wild fauna and spread through travel and trade.

Medicine: 80% of the world population depends on traditional medicine for primary health care. Many important modern medicines also based on wild sources.

Disaster prevention, relief and recovery: Risks associated with natural and man-made disasters can be reduced through conservation of ecosystems. Loss of biodiversity can increase susceptibility to disasters and impact on relief efforts.

Indigenous community traditions and health: Indigenous communities often have specific health and economic relationships to their local biodiversity resources.

Climate change: Biodiversity conservation is of fundamental importance for reducing health risks associated with climate change.

Ecosystem approach to health: If you are going to protect species and habitats you need to protect the system on which they depend. Similarly, to protect public health it is important to address biodiversity-related risks and opportunities. Strategically, it is important to understand basic landscape patterns and processes e.g. flow of water through the landscape, the engineering functions of key ecosystems, and importance of biodiversity to communities.

Cross-sector engagement should be based on the following steps:

- Build an evidence base for health-biodiversity linkages, and translate key points to target groups.
- Develop conceptual frameworks for cross-sector understanding and partnership. Look at existing health issues and identify where they can be helped by biodiversity conservation or made worse by biodiversity loss. It is important to respect and address differences – for example, health care solutions must often be immediate, while ecosystem approaches may require longer term planning and implementation.
- Put partnership into practice through use of existing tools (SEA, HIA, cost-benefit studies etc), and by integrating ecosystem approaches into existing strategies. The use of common indicators is invaluable (see presentation).
- Build partnerships through discussion and action.

2. Natural England's programme in health and biodiversity (Dave Stone, Natural England)

Natural England has a health and well-being position statement (see PowerPoint slide 3):
Early learning – fulfilled adults – healthy aging – the foundation of strong communities

Doing something good for biodiversity pays off elsewhere = indirect benefits. There are also direct benefits. Action needs to take place in rural and urban areas.

Practical case studies:

- **Walking for Health (32,000 people participating)**
It is aimed at our sedentary population and the average participation rate is 3 x week. Natural England and the Department of Health facilitate local programmes. Natural Environment is an important motivating factor.
- **Drug rehabilitation with Phoenix Futures**
Taking people out in the natural environment and involving them physically in the landscape and land management activities.
- **Working with GP Practices**
NHS Alliance with primary care trusts and GPs. Extending GP practice into surrounding environment; providing maps of green spaces and local walks. GPs prescribe medication and information on green spaces. All Primary Care Trusts will receive funding for this project.

- **BTCV**
Green gym contracted by Natural England to run on SSSIs and National Nature reserves (NNRs). Involves working with local farmers and communities.
- **The NHS Forests**
1.3 million trees planted on or around NHS Estates and used by local communities.
- **Green Infrastructure**
Utilise green areas in and around towns and cities as a multifunctional resource.
- **ACCESS TO Natural Green Space Standards (ANGST)**
Mitchell Papham showed that access to green space can save 1300 premature deaths per year.
- **The Natural Health Service**
Works through the outdoor health forum – and improves dialogue with health sector.
- **Connecting people to green space**
NICE looking at significance of spatial planning and the role in health of green space in determining health (Change4life).
- **Environmental Stewardship** has options linking protection of natural resource to people.

Health care is evidence based and Natural England has a key role in bringing the evidence together. Increasingly evidence shows that a more bio-diverse environment is better for health.

Evidence is fed into National Institute for Health and Clinical Excellence (NICE) publications. NICE guidance has directly mentioned green space and the natural environment.

3. Biodiversity and Strategic Assessment (Conor Kretsch, COHAB)

Working from within existing approaches – working across sectors.

Strategic impact assessments help to inform the development of policy and planning frameworks by identifying potential impacts (on health, environment, economic development etc) further down the road. They are necessarily cross-disciplinary in nature, and require a common understanding of basic issues across several fields.

- Strategic Environmental Assessments (SEA) - a critically important tool that should link biodiversity and ecosystems with human well-being (health, social capital, economic growth etc).
- Health Impact Assessment (HIA) – most often used at the project stage (as with Environmental Impact Assessment) but also increasingly employed at a strategic level (SHIA or SHA).

The influence of biodiversity on public health outcomes needs to be considered within health assessments, and the health implications of impacts on biodiversity need to be considered within SEA.

Strategic assessments are also important for securing an ecosystem approach to conservation, looking beyond protected areas and species to ecosystem function and services. We need to help people in other disciplines to integrate ecosystems and biodiversity into what they are

doing. Planning decisions often overlook biodiversity that is not contained within a protected or designated area. A more strategic and informed approach is needed in order to take account of key ecosystem goods and services, and to minimise social and economic risks associated with biodiversity loss. See PowerPoint for practical examples of integration into strategic assessment. The first looks at a housing development that displaced a mammal population. This led to spread of toxoplasmosis as it brought people into close contact with the mammals.

4. Strategic natural environment contributions (Mike Oxford)

There needs to be an evidence base of biodiversity present in a landscape to inform assessments. Explicit evidence based statements on biodiversity will set out what can be retained, incorporated, mitigated and created.

This requires joined up thinking as the whole is greater than the sum of the parts.

Development should add to linkages making a better and more connected landscape on and off protected sites – but need to think and plan strategically. Need to look at green infrastructure and identify which parts are particularly important.

Example 1

Appropriate Assessment of Sherford New Community Action Plan considered that new development could have a significant impact on the SAC. Development took account of evidence and was planned to include a country part which will provide opportunities for biodiversity. A green network is also being built into the built part of the development.

Example 2

Plymouth Green Infrastructure Strategy (currently out for consultation) has identified areas similar to Sherford. Components include flood prevention, local food/fuel production, blue space, active lifestyles, biodiversity benefits and transport (using green infrastructure). Economic Assessment expects population to make a contribution depending on house size. Compared to other priorities this is a low cost option.

5. Strategic water management and the planning process: Overview of Sustainable Urban Drainage Systems (SUDS) (Gary Grant AECOM Design+Planning, on behalf of Construction Industry Research and Information Association (CIRIA))

References:

CIRIA – The SUDS Manual and other documents available from: <http://www.ciria.org>

The Environment Agency see:

<http://www.environment-agency.gov.uk/business/sectors/36998.aspx> and Scottish

Environmental Protection Agency also provide helpful guidance at:

http://www.sepa.org.uk/water/water_regulation/regimes/pollution_control/suds.aspx

Great progress is being made with SUDS in Australia (where it is known as Water Sensitive Urban Design) see: <http://www.unisa.edu.au/water/UWRG/publication/downloads/WSUD/>

American Society of Sustainable Architects have published guidance on the ecosystem services approach at: <http://www.sustainablecities.org/>

Sustainable Drainage Systems (Rural and Urban)

There are numerous drivers for interest in and use of these systems. The Flood Management Bill (2010) is expected to require SUDS in all new developments. The field is dominated by engineers who often don't know about biodiversity.

SUDS are lower maintenance. Important to discuss ecosystem services with planners and engineers as this is a trans-disciplinary approach; a need to get involved in the way that others are working. In Australia all cities have SUDS manuals.

Urban Heat Island – another consequence of grey infrastructure

There is a need for more evapo-transpiration and SUDS can be used for this. Research at the University of Manchester is currently looking at this. Important to make sure that solutions actually benefit biodiversity. In Australia they specify native species.

Dr Janet Jackson at the University of Northants is monitoring biodiversity as part of SUDS. Once biodiversity is built in it becomes part of the infrastructure and so can't be threatened. Eco-town planning is looking at SUDS as part of the green infrastructure and the approach to open space. Consultation with LBAP partnerships help develop wildlife corridors and green loops, thus promoting water which also provides drainage.

6. Making contracts work for Wildlife (Chris Jones, Wrekin and Telford Council)

Focus on grounds maintenance contracts. The scope was very basic and looked at current management which led to desert type landscape with little biodiversity.

Deciding to do things differently - barriers often cited as staff/ finance/ contractor problems. But the key question remains – is the current specification working? If it is not then there is a basis for doing things differently.

Ground rules for doing things differently

Native versus exotics – they use both on different planting schemes

- Annual meadows – cost effective
- Native meadows – roadside verges – changing management and some reseeded
- Enhanced Bulb areas – prolonging season
- Exotic Perennial Meadows – In and around housing estates (3-4 season rotation). No problems with fly tipping and kids use area.
- Red Clover with Perennials

Communities often come to the council and ask for planting schemes.

7. Building Biodiversity Benefits into Planning and Development Control (Mike Oxford, ALGE)

Developing a toolkit for planners in partnership, (ALGE and others). Many planners don't know their biodiversity obligations and there is a lot of advice and guidance not being used. Many vulnerable species are not being protected. The Biodiversity Planning Toolkit will be on a planning portal website. It brings together information and it will be relevant to the 4 countries of the UK. It will look at development control and management and it will look at forward planning. It will include comprehensive information by species. Mike asked

participants to look at the available demonstration toolkit and feedback comments. The system is picture based and the pilot will be available soon. Launch early 2010.

8. Building partnerships for biodiversity and construction – lessons learnt (Peter Cush, Dept of the Environment, Northern Ireland)

The Planning function in Northern Ireland sits within the Department of the Environment. There is a driver to incorporate biodiversity into social housing, however it is important to use the right approach when talking to each other. The case for biodiversity is already made and there is plenty of common ground.

Doing things differently:

There is a way in to change things if the development is funded by public money – you have power if you use it wisely. Bring solutions to the table along with a deal; you have to know your stuff e.g. the species requirements. In the case study on swifts this led to greater motivation and enthusiasm and so the builders went further than required to protect the species. Changing attitudes/changing minds the perspective of the birds changed from “messy things” to “a thing of great wonder”.

There is a need to really engage at influential level right across the industry. The Architects involved in the case study now want to use Swift bricks in other projects. Important to engage with sector through societies – take the biodiversity message to them and let them run with it.

9. Wildlife and Tourism in Scotland – Caroline Warburton, Wild Scotland

Wild Scotland is the Scottish wildlife tourism association. It is a trade association and works to enable wildlife tourism to make a contribution to the Scottish economy.

Wildlife watching is for everyone – it is an opportunity to inspire people and encourage them to look deeper at our natural world. This may require using more charismatic animals as a ‘hook, but can arouse a long term interest in the topic.

Scotland has a strong brand (tartan, bagpipes, golf, whisky, castles etc), and the backdrop to all of these is the landscape and our habitats. People use the landscape in many ways and need to realise wildlife is part of that environment.

A study in 2001 by VisitScotland (Scottish Tourist Board) showed that 51% of visitors were interested in nature and wildlife (only 5% stated golf!) and 93% would recommend Scotland as a nature and wildlife destination. This triggered an interest by tourism agencies to support and promote wildlife-watching.

There are many ways to watch wildlife. These may include boat trips, Land Rover safaris, wildlife hides, visitor centres, watching by video link from your room, wildlife festivals and individual guided tours. There are strong economic arguments for supporting wildlife watching. Some studies have illustrated this:

- Sea-eagles on the Isle of Mull are worth £1.5m to the local economy (RSPB 2006)
- Marine wildlife tourism is worth £1.8m to the West Coast of Scotland’s economy (DEFRA 2001)

In 2001, Wild Scotland was formed. It now has membership of 82, all of whom offer wildlife-watching experiences. Wild Scotland undertakes a range of activities:

- Promotion of Scotland as a wildlife-watching destination: website, leaflet, attendance at British Bird-watching Fair
- Business support and advice: training courses, WISE training
- Promoting best practice in responsible wildlife tourism: development of guidelines (currently under review, comments welcome)
- Networking: e-newsletters, annual conference

Web-link: www.wild-scotland.org.uk

DAY THREE

1. Economies and Ecosystems (Conor Kretsch, CoHAB)

Economic stability at all levels depends on sustainability of the natural environment; the idea that economy should take precedence over environmental concerns is out dated. A healthy economy is dependent on a healthy environment. Biodiversity provides essential natural capital and critical infrastructure for society; we have a choice – to protect or to squander our assets.

We need to work with businesses to understand how they impact on biodiversity and how they benefit.

- Identify risk
- Identify opportunities

All businesses are part of the overall economy so if a partner business is under stress this will have an impact on others.

Corporate Ecosystem Services Review - Guidelines for identifying business risks and opportunities and develop and implement strategies to address these

Examples provided:

- **Vittel:** Business and farmers working together to protect the watershed. Led to different management practices due to pesticide/nitrate content of water.
- **Allegheny Energy:** Wanted to sell highly bio-diverse land and did an assessment based on services available (£32million). The traditional value of the land was £16 million. Ended up selling to government and received tax breaks due to services provided through ecosystems.
- **Pharma sector:** Has an interest in the conservation status of coral reefs due to research into medicinal products in marine environment – Prialt (Zinconitide) developed by Élan from cone snail venom.
- **Financial sector:** Increasingly assessing ecosystem risks and opportunities as part of corporate lending strategies. E.g. Citi have begun assessing risks associated with dependency on, but disregard for ecosystem services such as water supply.

2. Making Sport Sustainable – a case study for the Golf Sector Jonathan Smith Golf Environment Organisation

Golf – potential to integrate sport, leisure and the environment. Golf embraces environment and biodiversity at the heart of its core values and there are 35,000 golf courses world wide.

In Edinburgh there are 25 golf courses and these can act as viable ecosystems and corridors. There is more work to do on the ecological function of golf facilities in certain contexts. Golf needs to look for environmental and community opportunities. This is about positive engagement rather than fending off legislation.

The Global Forum for Sport and the Environment – stronger planning policy for golf and more insightful development control. New guidelines on sustainable golf development include a section on spatial planning and strategic assessment. There is a movement to low carbon/high ecosystem golf – this is about performance and practical achievement.

3. Biodiversity and Ecosystem Services Initiatives in the Financial Sector (Laura Somerville, Fauna & Flora International)

Increasingly there is a link made between shareholder value and sustainable development and environmental issues. For investors we found the subject is more tangible if it is broken down into single issues such as water, climate change, natural hazards and human rights, for example:

- Policies and legislation are now being developed around climate change;
- International agreements are in place around water.

Investors use various tools to identify how well a company is managing a range of risks and currently there is a lack of understanding and tools for identifying risk and dependencies for biodiversity. The Ecosystem Services Benchmark (ESB) tool developed through the Natural Value Initiative is the first tool to look at dependencies on ecosystem services e.g. security of supplies in the long term, as well as risk. Discussions are now moving on from how a company impacts on biodiversity and ecosystems (reputational risk) to how they depend on them (economic risk). Short term-ism of financial industry means that as resources become scarce/degradation increases these risks will become more urgent. F & C have divided these risks in to 7 categories (see slide 5). There are some early responders including F & C review – ‘is biodiversity a material risk.

- Materiality Analysis (F and C) –identify sectors that have the greatest impacts and how these impacts and related risks arise.
- UNEP Finance initiative - “Bloom or Bust” – looks at impacts of each sector and cross checked back to F and C analysis above.
- The perspective from Oekom looked and risks and dependencies of a limited number of sectors.

One of the traditional methods investors use to assess performance of companies is benchmarking. Benefits of benchmarking include:

Benchmarking tool

Looks at how companies are managing risk and reveals strengths and weaknesses of companies and produces credible information on which to base discussions. Enables tracking and so monitors response to weaknesses.

Ecosystem Services Benchmarking tool (developed in partnership) – focuses on investor risks and opportunities associated with impacts and dependencies on biodiversity ecosystems services for companies with agricultural supply chains. The tool is based on previous work carried out on the extractive sector.

4. Business and Biodiversity Offsets (Laura Somerville, Fauna & Flora International)

Business and Biodiversity Offsets programme (BBOP) Payment for biodiversity – piloting methods for biodiversity offsets. It is important to **AVOID/MINIMIZE HARM BEFORE CONSIDERING OFFSETS**. Only works together with commitment to repair/reinstate and restore biodiversity through BAP following development.

The financial sector is beginning to ask question around offsets. Offsets improve a company's licence to operate as they address stakeholders concern and governments are more likely to acknowledge the company as a responsible operator. This starts to influence policies in other countries. With biodiversity offsets time, scale and comparability are important and there is controversy about how you measure this. It is important not just to address loss but to include residual improvements too: stakeholder approach rather than legislative.

BBOP currently there are 7 pilot projects and a toolkit has been developed. Also looking at policy developments/interventions. Aim is – no net loss and ideally positive gains.

BBOP – Kerry ten Kate: kten@forest-trends.org

5. The importance of biodiversity for physical and mental health (William Bird, Natural England)

How does biodiversity relate to health? Is it just a marketing game or is it much deeper? Over the last century the environment has been forgotten about in terms of health. In 1984 local authorities lost the health remit and this forced a split between local authorities and the NHS, yet originally local authorities established the health agenda i.e. cleaner environment. Need to bring the local authority well being agenda and the NHS health agenda closer together. Important to gain public support – win over hearts and minds. Public and policy perceptions vary – but evidence is there and is developing to support links. Dementia, muscle wasting and osteoporosis is directly linked to inactivity. The natural environment reduces stress and increases physical activity as well as strengthening communities.

- Our Natural Health Service - reduction in health inequalities, increased physical activities, decreased obesity, improved mental health, stronger communities, protection from harmful environmental factors.
- William Bird Chairs the Outdoor health Forum - UK is leading on this.
- Making the links – twin GPs with green space prescriptions. NHS and Local Authority jointly fund projects that connect patients to the environment and communities e.g. Alder Hey in Liverpool.
- Health not necessarily the driving force to get people out and active – often it is the environment, well being and enjoyment. See presentation for links to evidence.
- Ireland study – showed more biodiverse parks are more interesting to the public – Conor to put study on CoHAB website.
- Link Blue Gym www.bluegym.org.uk