Charles Stewart Roper

Natural Resources Division

Biodiversity Policy in a Changing Climate

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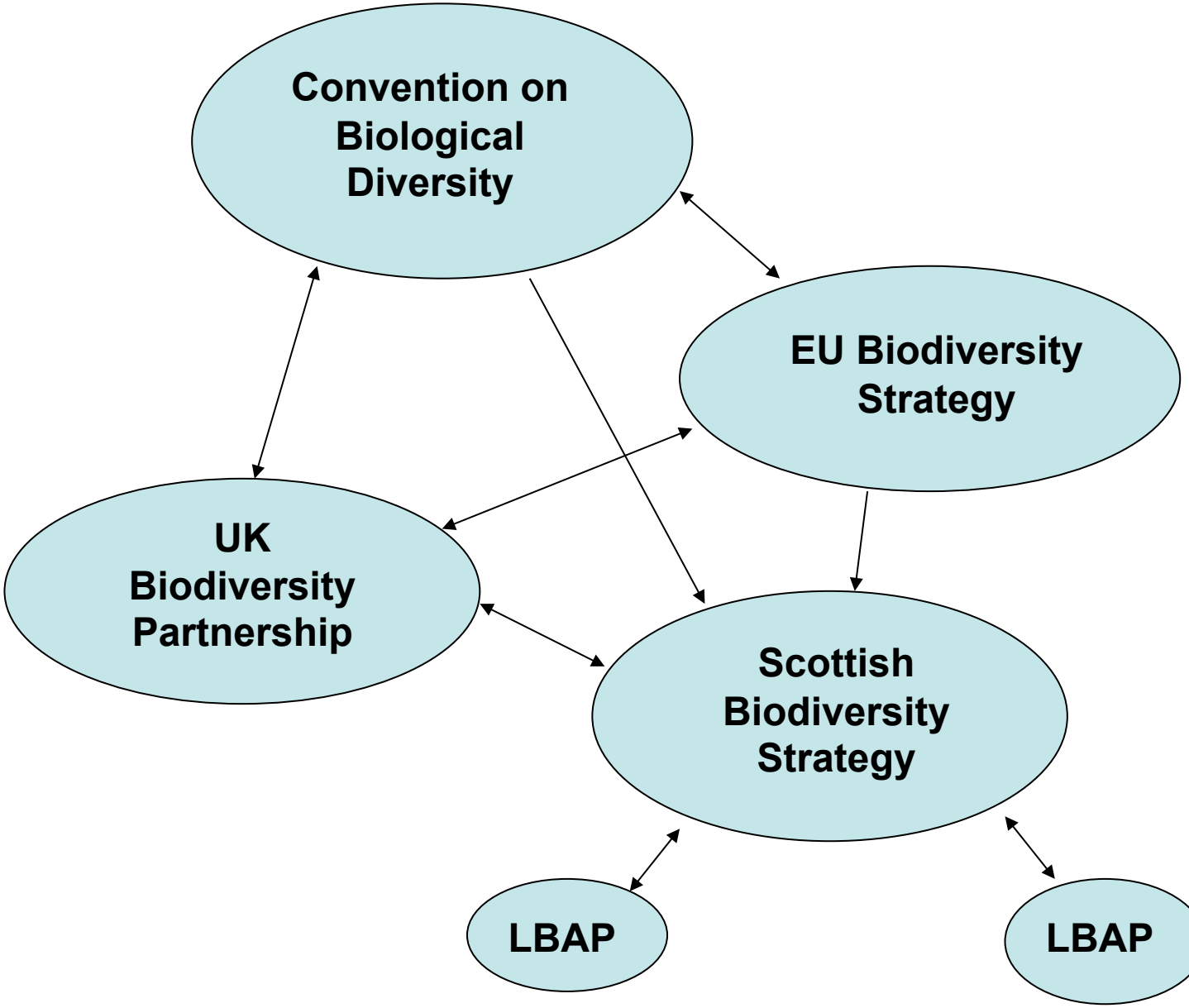

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CBD Nagoya: new strategic plan

Scientific consensus projects a continuing loss of habitats and high rates of extinctions throughout this century if current trends persist, with the risk of drastic consequences to human societies as several thresholds or “tipping points” are crossed. Unless urgent action is taken to reverse current trends, a wide range of services derived from ecosystems, underpinned by biodiversity, could rapidly be lost.

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CBD Nagoya: new strategic plan

Determined action to value and protect biodiversity diversity will benefit people in many ways, including through better health, greater food security and less poverty. It will also help to slow climate change by enabling ecosystems to store and absorb more carbon; and it will help people adapt to climate change by adding resilience to ecosystems and making them less vulnerable.

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CBD Nagoya: biodiversity and climate change

Activities to increase the adaptive capacity of species and the resilience of ecosystems in the face of climate change, include, *inter alia*:

(i) Reducing non-climatic stresses, such as pollution, over-exploitation, habitat loss and fragmentation and invasive alien species;

(ii) Reducing climate-related stresses, where possible, such as through enhanced adaptive and integrated water resource and marine and coastal management;

(iii) Strengthening protected area networks including through the use of connectivity measures such as the development of ecological networks and ecological corridors and the restoration of degraded habitats

(iv) Integrating biodiversity into wider seascape and landscape management;

(v) Restoring degraded ecosystems and ecosystem functions;

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new EU targets

A long-term vision that by 2050 European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided

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new EU targets

For this vision to be achieved AGREES further on a headline target of halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as possible, while stepping up the EU contribution to averting global biodiversity loss

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new EU targets

STRESSES that effective policies in support of biodiversity and climate change mitigation and adaptation are inextricably linked; HIGHLIGHTS that greater convergence at international and national levels is needed in efforts to address both issues in a mutually reinforcing manner, optimising opportunities in ongoing global processes within the CBD and UNFCCC and in the preparations for Rio+20;

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Scottish Biodiversity Strategy

The most important issue will be the extent to which species can shift their range as climate change takes place and sea levels rise. If they can adapt, the impacts on biodiversity will be limited and possibly positive. But for many less mobile species - especially on land where their habitat is already fragmented this shift will not be easy.

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Biodiversity in Scottish Climate Change Policy

- SBS
- Planning in the ecosystem groups
- Measures – eg SRDP
- Planning policy (NPF2 action: Develop a National Ecological Network potentially encompassing large strategic habitat restoration projects.)
- SNH, SEPA, FCS and other partners policies and actions
- Land Use Strategy
- New Marine planning framework
- Adaptation framework

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Adaptation framework

- Chapters that are about ecosystem services:-
  - Water Resource Management, Agriculture , Forests and Forestry Marine and Fisheries - mainly
  - Spatial Planning and Land Use , Transport , The Built Environment , Energy , Business and Industry , Health and Wellbeing Emergency and Rescue Services – in part
- That is, much of the framework is about ecosystem service changes in response to climate change.
- Natural environment is the vector for much of the impact of climate change on human wellbeing.

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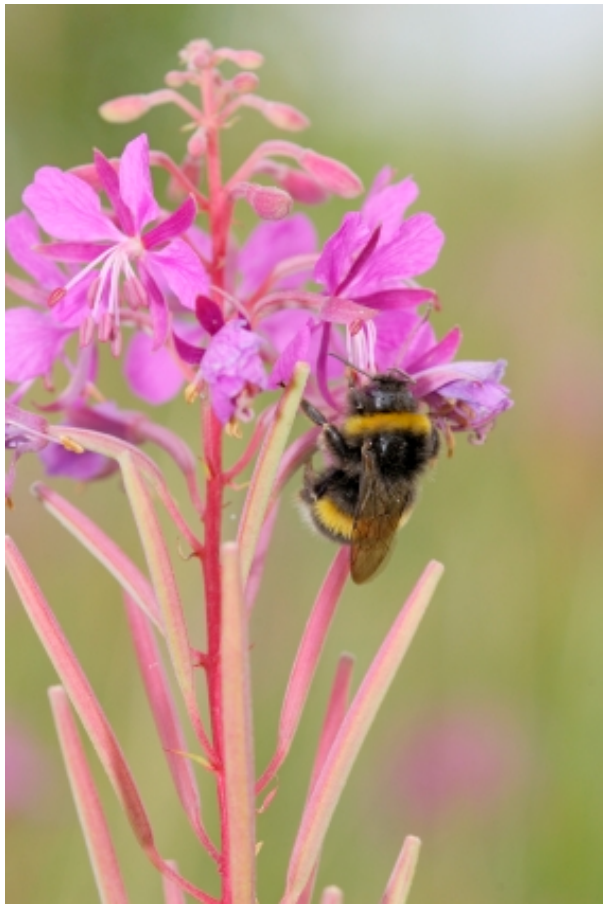
Ecosystem resilience



Great importance to wellbeing and to the economy

Detailed links between biodiversity and service provision not always well understood

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Biodiversity

Biodiversity still strongly valued for its existence, and for the enjoyment in experience.

Biodiversity an input and an output.

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The Big Challenges

- Freshwater ecosystems
- Upland ecosystems
- Woodland ecosystems
- Farmland and urban
- Increasing knowledge and understanding
- The need for action across many sectors

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Areas for action

- Promotion of natural flood management in catchment planning;
- Adaptive coastal management including managed coastal realignment;
- Using natural features in urban environments to assist adaptation

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Areas for action

- Management of nature conservation sites to take account of changing climate
- Managing species conservation priorities to take account of changing climate;
- Reducing pressures on habitats vulnerable to climate change,
- Promoting ecological connectivity
- Continuing pressure on invasive non-native species

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Conclusions – the challenges

- Inexorable and uncertain pressure
- May be losses and changes we just have to accept
- Invasive species unpredictable and difficult threat

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CBD Nagoya: biodiversity and climate change

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Conclusions – the silver lining?

- Many measures to increase ecosystem resilience will be achieve multiple goals, including adaptation
- Natural systems valued as carbon stores
- GB Non-Native Species Strategy
- National Ecological Network
- Land Use Strategy

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Thank You

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