NatureScot
Scotland's Nature Agency

**NatureScot**

**SCIENTIFIC ADVISORY COMMITTEE**

**INFORMATION PAPER**

# Understanding the Indirect Drivers of Biodiversity Loss in Scotland

## Purpose

1. This paper outlines research commissioned by NatureScot from the James Hutton Institute on how the ‘indirect drivers of biodiversity loss’ operate in Scotland, how actions may be taken to address them, and what further analysis and research may be helpful.

## Action

1. The Committee is asked to note the paper.

## Preparation

1. The paper was written by Alan Cameron, Pete Rawcliffe, and Susie Turpie (Environment Strategy Team, Scottish Government); it is sponsored by Des Thompson.

## Background

1. The indirect drivers of biodiversity loss were set out in the [Global Assessment Report on Biodiversity and Ecosystem Services (2019)](https://ipbes.net/global-assessment), the most prominent report to date from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). IPBES is a wide consortium with 137 member States, and it includes NGOs, civil society groups, local communities, the private sector, and several thousand scientific experts.
2. In addition to the direct causes of biodiversity loss (pollution, climate change, INNS, direct exploitation and land use change) the report also outlines a wide array of social and economic factors that undermine our efforts to address the loss of nature and bring about the required ‘transformative change’. These indirect drivers of biodiversity loss include aspects of our culture and behaviour, demography, economy, governance, institutions, and technology.
3. The [Kunming-Montreal Global Biodiversity Framework](https://www.cbd.int/article/cop15-cbd-press-release-final-19dec2022) was adopted by the UN Convention on Biological Diversity Conference of the Parties in December 2022. The Framework lists [23 Targets](https://www.cbd.int/gbf/targets/), of which targets 12, 14, 15, 16 and 18 address the indirect drivers.

## Commissioned research

1. In 2021 NatureScot contracted a team of social scientists, economists, ecologists and others from the James Hutton Institute (JHI) to investigate how the indirect drivers operate in Scotland with the aim of identifying ‘levers of change’ acting on the drivers that different sectors and actors can influence. These levers include strategies, plans, policies, legislation, guidance, standards, governance structures and regulations. The sectors and actors include: Individuals; Communities; Civic Society; Business; Local Government; Scottish Government and Scottish Public Bodies; UK Government, and International institutions.
2. The JHI team conducted a desk-based literature review supplemented by interviews with NatureScot staff and other experts. Dr David Bailey, University of Glasgow, contributed substantially to the marine elements. The work concluded with a workshop for NatureScot staff.
3. The [Summary and Main Report](https://www.nature.scot/considerable-change-needed-stop-nature-loss-scotland) were published on 1st September. The report’s key conclusion is that ‘action has to be taken quickly across a wide range of policy areas and throughout Scottish society and business in order to shift to a sustainable future where we can rely on biodiversity to keep delivering its goods and benefits’.
4. The overall vision set out in the report is of a Scotland with a ‘wellbeing economy with strengthened local democracy and increased civic participation’. The report makes a number of recommendations, some of which are very broad, some detailed. The policy areas covered by recommendations in the JHI report include:

* Building a wellbeing economy
* Strengthening democratic participation
* Markets, economic performance, incentives
* Net zero and Just Transition
* Fisheries and the marine environment
* Agriculture
* Forestry
* The Carbon Market
* The Built Environment
* Personal values and understanding
* Education and skills

## Next steps

1. The report has contributed to the draft Scottish Biodiversity Strategy Delivery Plan, published on 7th September. Indeed, the Plan has a section on proposed actions to address the indirect drivers of biodiversity loss covering education and skills, the economy and mainstreaming biodiversity. It is hoped that the report will help Scotland make a substantive international contribution to the planned 2024 *IPBES Transformative Change Assessment* – a thematic assessment of the underlying causes of biodiversity loss, determinants of transformative change and options for achieving the 2050 Vision for Biodiversity.
2. The report will also help to inform the development of the *Environment Strategy for Scotland*. The Environment Strategy creates an overarching framework for Scotland’s environment and climate change policies, and aims to support a whole-of-government approach to tackling the climate and nature emergencies. Two of the Strategy’s [outcomes](https://www.gov.scot/publications/environment-strategy-scotland-vision-outcomes/documents/) focus on the transformations in Scotland’s economy and society needed to help tackle these twin emergencies.
3. The Scottish Government is currently developing a set of ‘pathways’ to identify actions across the breadth of government for driving progress towards the Environment Strategy outcomes. To help inform the pathways, the Scottish Government has commissioned *The New Economics Foundation* to lead a research project exploring how Scottish Government can use the available policy levers most effectively to support the Just Transition to a net zero, nature positive, circular economy, based on Theory of Change modelling. *The New Economics Foundation* is drawing on the findings of the JHI report to help inform this research.
4. The ‘pathway’ for achieving the Environment Strategy’s ‘economy’ outcome will support the delivery of [Scotland’s National Strategy for Economic Transformation](https://www.gov.scot/publications/scotlands-national-strategy-economic-transformation/) – in particular, its ambition for creating a *‘greener economy: demonstrating global leadership in delivering a just transition to a net zero, nature-positive economy, and rebuilding natural capital.’*
5. More broadly, the Environment Strategy’s ‘economy’ outcome will support the delivery of the Scottish Government’s vision for a Wellbeing Economy, described as *'an economic system, within safe environmental limits, that serves and prioritises the collective wellbeing of current and future generations’.* By supporting the evidence base for the ‘economy pathway’, the JHI report is helping to place biodiversity at the heart of our vision for Scotland’s economy and to identify practical options for creating a nature positive economy.

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