

The Environment, Climate Change and Land Reform Committee

Green Recovery

Submission From:

Chartered Institute of Ecology and Environmental Management (CIEEM)

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The Committee would particularly welcome views on the following questions–

Do the principles of sustainable development (as set out in the annexe), and those for a resilient recovery, as proposed by the UK Committee on Climate Change, provide a comprehensive framework for guiding an effective green recovery in Scotland

Yes

What are the key barriers to delivering a green recovery (within your sector and / or community)?

A potential barrier is the risk of pressure to invest in large-scale projects like road-building that will provide a quick and relatively easy fix, but which run counter to the move towards a greener economy. Investment priorities should be those which meet the principles of sustainable development.

The rush to deliver temporary solutions without thought to how they could become permanent, or their ability to deliver more than just, for example, a cycle lane. The pressure to “build, build, build” will just result in traditional techniques and approaches being used, instead of taking the opportunity to really invest in green options and create healthy, happy, multifunctional (and future-pandemic-ready) places.

For biodiversity, complacency is a significant barrier in many ways. For example – nature reserves/protected sites are heavily relied upon as part of the solution for biodiversity loss, when in fact many of these are degraded and only hasten the partitioning of our remaining flora and fauna into distinct patches across the landscape. High level protection of habitats and species needs to feature throughout human society – this has been inadequate so far. There needs to be a better grip on the cumulative impacts of development and land-use. Biodiversity provides a multitude of benefits to society and the economy, not least of which is that healthy, resilient ecosystems reduce the spread of zoonotic diseases and help to combat climate change.

The loss of ecologists from local authorities is a key barrier to a green recovery. Without this expertise, planning decisions are often made without due consideration of the environmental impact.

A cultural change is required to drive the green recovery. Covid-19 has shown that this can be possible. For example, working from home has become widespread and can play a continued pivotal role in reducing carbon emissions associated with commuting. This will require the development and expansion of digital infrastructure and boosting broadband provision to support home working especially in rural areas. Flexible working practices should continue to be encouraged and facilitated. There is also mounting evidence that a four-day working week could contribute to carbon savings alongside a variety of other social and economic benefits. Changing culture will also be required to encourage the public to adopt new more sustainable ways of living. Currently, this is constrained by, for example, a lack of

infrastructure (e.g. sufficient cycle lanes). It will require awareness raising and promotion at all levels. The use of the private vehicle should be disincentivised, for example through the widespread introduction of charging for driving in towns and cities.

It is important that Covid-19 does not prevent a return to the use of public transport. There may be a reluctance to use public transport in the future as a result. When it is safe to do so, the public will need to be encouraged to begin using public transport again. Investment in public transport must not be rolled back or stopped. Rather, increased investment in carbon neutral public transport, with sufficient service to allow for social distancing whilst providing good service to link communities and business, should be the way forward.

We do not feel that the planning process is a barrier to delivering a green recovery. CIEEM has worked hard to ensure that members conform to good practice guidelines so that the necessary evaluations of environmental impacts are carried out as speedily as possible. However, this depends on developers engaging with the process as early as possible. We also support the RTPI's recent *Plan the World We Need* report.

Greater use of home delivery services has inevitably led to an increase in the use of plastic packaging. In addition, disposable face masks and other disposable products have led to a dramatic increase in the use of plastics in the environment, against a background where significant improvements were being made.

Ambition and vision will enable these barriers to be overcome. We outline key priorities we consider that need to be part of a green recovery.

What key policies, actions and immediate priorities are needed to deliver a green recovery (within your sector and / or community)?

1. Nature-based solutions

To deliver a truly green recovery there needs to be a strong emphasis on nature-based solutions¹ to address the climate and biodiversity crises. Nature-based solutions and sustainable land management practices can deliver multiple benefits for people, the environment and the economy. Scotland already has mechanisms in place such as the Peatland Action Fund and we welcome recent announcements of continued funding². There should be stricter guidelines on what operations can take place on peatland (e.g. severe limitations on peat extraction) and approved developments must be restorative in nature (e.g. paludiculture enterprises). Farmers that have peatland on their land should receive payments for maintaining peatlands; keeping carbon locked away.

Similarly, we have to ensure that Scotland's forestry strategy not only supports ambitious national targets for increasing woodland cover, but also encourages much higher proportions of native broadleaved woodland following the principle of the "right tree in the right place" and measures to encourage natural regeneration not just planting. As well as planting we have to ensure the protection of woodlands as important ecosystems for carbon sequestration and retention, and statutory protection of all ancient woodland.

There is a potential new employment sector around climate change adaptation, delivery of nature-based solutions, restoration, natural flood management, green infrastructure and raingardens. Tree planting and peatland restoration can provide employment, particularly in rural areas where other forms of employment are difficult to find. Funding for these activities must be guaranteed and consistent, otherwise the job opportunities become ephemeral. Affordable and energy

¹ Using Nature-Based Solutions to Tackle the Climate Emergency and Biodiversity Crisis. CIEEM Briefing Paper July 2020 <https://cieem.net/wp-content/uploads/2020/07/Nature-Based-Solutions-designed3.pdf>

² <https://blogs.gov.scot/rural-environment/2020/07/20/peatland-action-fund-open-for-new-applications/>

efficient rural housing is also part of this equation as without it where do workers live? We can learn from approaches being adopted in New Zealand, where significant investment is happening to create jobs in large-scale nature restoration projects³.

2. Green active travel and improved public transport

Daily global emissions plunged an unprecedented 17% on-year at the height of the Covid-19 lockdown⁴. For a brief time in April, UK emissions fell by nearly a third. Half of the daily drop in emissions was attributed to the shut-down of surface transport. This highlights that strategic and ambitious investment in green active travel (routes, facilities and infrastructure) is an essential part of a green recovery. 38% of UK journeys cover distances of <2 miles, just 2% are made by bike.

Various measures can enable increased uptake of green active travel:

- Active travel will be adopted where there is provision of safe, physically segregated cycle/pedestrian routes in cities to all areas and in-between to encourage people to cycle for work and pleasure.
- 'End to end' facilities (e.g. greater provision of secure on-street cycle storage and within workplace buildings, as in the Netherlands).
- Walkers, runners and cyclists commuting to the office need shower facilities to be encouraged to adopt active travel.
- Active travel is also more likely to be adopted where the route is aesthetically pleasing, which includes use and enhancement of the green and blue environment (e.g. use of disused railways and canalsides).
- Review planning policies to ensure that any new office builds are linked to active travel routes and provide facilities to facilitate this.
- Currently there seems to be investment in relatively small-scale urban active travel routes. While these are very welcome, long distance active travel routes should also be developed (e.g. linking 'commuter towns' around our major cities which allow people to journey without the need for a car).
- Purchase of bicycles could be subsidised, at least for those people least able to afford them. This could include e-bikes to make sure that those less able to cycle are not left out.
- Cultural and attitude change. A public information campaign on the benefits of cycling and awareness of local routes will need to run alongside many of the improvements. Provision of bikeability and walking to school schemes should be consistent and improved across all local authorities.

Increased active green travel will not just help with social distancing in the short-term, it will help with tackling the climate crisis, air pollution and public health, decreasing the burden on our NHS.

Public transport systems are vital but will not be able to operate at full capacity for some time due to social distancing. However, we have to ensure that we further develop strong intercommunity public transport networks, using electric trains and buses to link smaller rural communities with the larger cities as needed. Better public transport services with integrated transport options/good connections and good reliability will make public transport more viable/attractive, coupled with incentivising through lower fares.

There should be increased funding in initiatives that result in freight traffic being diverted from road to rail. This might include lengthening the passing loops on the line between Perth and Inverness and extending the Borders railway. With

³ <https://www.doc.govt.nz/news/media-releases/2020-media-releases/investment-to-create-11000-environment-jobs-in-our-regions/>

⁴ Le Quéré, C., Jackson, R.B., Jones, M.W. *et al.* (2020) Temporary reduction in daily global CO₂ emissions during the COVID-19 forced confinement. *Nature Climate Change*, **10**, 647–653. <https://doi.org/10.1038/s41558-020-0797-x>

the development of housing in East and West Lothian, planned stations such as Winchburgh and East Linton should be built as soon as possible to move commuter traffic away from cars and onto the railway.

Our international gateways post-Brexit should avoid locations and options which are sensitive to the climate and ecological crises. Ferry routes for freight and people to the rest of Europe should be promoted and/or reinstated. Rail links to our international ferry ports should be a priority. As a more ambitious infrastructure project which would create and support jobs, a rail link between the Irish Sea port at Cairnryan and the West Coast Mainline, at for example Lockerbie, would also provide substantial benefits both in freight and passenger transport. With air travel not expected to recover for some years, and the urgent need to move away from carbon-intensive air travel generally, investment in existing or new ports should be considered. Improved sea connections to Europe would be beneficial for freight transport and tourism.

3. Locally produced food and the role of agriculture in a green recovery

Agriculture is a key part of the Scottish food and drink industry, which contributes £112 billion to the economy and has a major influence on our environment. Farmers who undertake good land management practices which deliver multiple ecosystem services (e.g. biodiversity, flood protection, carbon sequestration) as well as sustainably growing crops and rearing livestock should be incentivised in the long-term. If we are to achieve dramatic changes in agriculture for the benefit of the environment and human well-being, the process of financial support for farming should undergo a radical overhaul so that public money is used to deliver natural capital improvements. There is an urgent need to protect the natural assets that are essential to the production of food in Scotland (e.g. soil erosion and compaction from agriculture cause significant problems). Holistic grazing management for soil regeneration should be carried out as standard on livestock farms. Well managed crofting agriculture can have many benefits for wildlife but is vulnerable to a lack of young people coming into the sector. Agriculture that works with nature is key to the green recovery. This will require encouraging landowners and land managers to manage the land in a way which works with nature to deliver multiple benefits and ecosystems services.

During lockdown there has been a dramatic increase in people using local shops and a renewed interest in locally sourced food. Incentives for the local production and distribution of food will help protect food supply chains and increase their resilience. Investment in advertising campaigns to encourage consumers to buy locally produced food. The *Seafood from Scotland* campaign is an example of what can be done.

Provision of more allotments and community growing spaces/opportunities, and integration into new housing developments, helps both community cohesion, health and food resilience.

Localising production of goods and services, such as local food production for communities and localised energy production and distribution, would create jobs within communities, reducing the need to travel out of local areas to access goods, services and jobs. The latter is especially important for our more deprived urban communities as well as remote and island communities where access to affordable public transport to get to job opportunities or even supermarkets is often a key barrier to improving the quality of people's lives in these communities. The current COVID-19 outbreak has seen local food shops responding more rapidly to the changed circumstances than supermarket chains due to their shorter supply lines.

A key element of a green recovery is reconnecting our urban populations with nature and a sustainable agricultural system. The recent increased use of the outdoors has been fantastic and we should maximise on the resulting multiple benefits. There have however been issues with people not used to being in the Scottish countryside and this has highlighted the important role for education such as Forest Schools but also raising awareness of the Scottish Outdoor Access Code. There is an increasing role for community-supported agriculture and incentives for growing their own food, to offer alternative sources of income, particularly in rural areas, and the raising of general horticultural knowledge and standards in the public.

4. Planning process, NPF4 and BNG

Biodiversity net gain (BNG) is an existing approach which is being legislated for in England under the Environment Bill. BNG is a stepwise approach to development that seeks to not only replace habitat losses from development but to provide a greater area and quality of habitat post-development than there was before. This is essential as simply replacing habitat losses from development does not address the decline in area and quality of habitats which has happened over time and resulted in the levels of species loss reported in the *State of Nature* report⁵. We have produced a briefing on *Biodiversity Net Gain in Scotland*⁶ which provides further detail, as well as producing the first UK principles on delivering BNG⁷. Further guidance has now been published to help professionals and UK industry address this challenge and to achieve 'Net Gain' targets for biodiversity⁸. We believe that this approach can be an effective 'tool' to create positive benefits for biodiversity through development in Scotland. We also believe that the approach could be successfully applied to agri-environment land management as part of an integrated land use strategy. To ensure effective implementation, Local Authorities would need access to competent ecological expertise and advice (preferably in-house) and funding. We feel, based on our professional expertise, that a minimum 10% net gain should be required, possibly with an overall 20% gain on developments in each Local Authority area, achieved by incentivising developers to maximise BNG. Adoption of BNG could lead to a market in habitat creation and management which could lead to a new income stream for those in rural and urban areas.

Traditional nature reserve and protected site conservation on its own is not enough to reverse the decline in biodiversity.

5. Renewable energy development

Upscaling renewable energy has huge potential in Scotland with the creation of hundreds of jobs. Scotland has been at the forefront of renewable energy developments and there is great potential to build on this especially with the transferable skills and expertise that exist in Scotland through the oil and gas sectors. Progressing Scotland's achievements in renewable energy production and de-carbonising our energy systems should continue in pursuit of the goal of achieving net zero. However, increased attention should be focused on facilitating de-carbonise our heating systems, through the development and widespread adoption of sustainable heating systems. New and existing technologies for heating our homes and businesses should be actively promoted. District renewable heating schemes have great potential, but renewable schemes aimed at an individual house scale should also be promoted.

In many rural areas in Scotland, localised community-based renewable energy production has created local jobs for the construction, operation and maintenance of such infrastructure as well as creating revenue to invest back into community projects.

6. Circular economy

The Circular Economy Bill has not been progressed due to Covid-19. However, investing in a circular economy would provide employment and reduce the cost of disposing of wastes to landfill. As a matter of principle all 'wastes' generated in Scotland should be processed within Scotland to turn them into useful products. This will require investment in modern recycling plants and in industries that can manufacture new products from the material generated in recycling plants. Alternative waste streams such as mushroom production from waste products should be investigated.

The planning system should promote investment and development of a low carbon, circular economy. Scotland should seize the opportunity, as it did with renewable energy, to be a world leader in the development and implementation of

⁵ *State of Nature* Scotland Report (2019). <https://www.nature.scot/sites/default/files/2019-10/State-of-nature-Report-2019-Scotland-full-report.pdf>

⁶ CIEEM (2019). *Biodiversity Net Gain in Scotland*. Available at: <https://cieem.net/resource/biodiversity-netgain-in-scotland-briefing>

⁷ CIRIA, CIEEM, IEMA (2016). *Biodiversity Net Gain: Good practice principles for development*. Available at: <https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development>

⁸ CIRIA, CIEEM, IEMA (2019). *Biodiversity Net Gain: Good practice principles for development, A Practical Guide*. Available at: <https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development-apractical-guide>

new technologies which help to solve the challenges we face. There are substantial economic benefits to be achieved from doing so, as other countries around the world seek to deal with the same problems.

7. Green infrastructure and green technologies

Many of the nature-based solutions related to climate should be mainstreamed in our future city and town centres (e.g. green spaces and ecological networks, inclusion of rain gardens, permeable driveways and renewable energy). Local green communities will have biodiverse urban green spaces that can perform a variety of functions (e.g. local food production, pollination, air quality improvements and health benefits). Blue and green infrastructure needs to be planned not merely to look at carbon calculations but must include biodiversity net gain – implemented using sound ecological knowledge to ensure that such infrastructure delivers true benefits for biodiversity and hence for the vital ecosystem services that biodiversity supports.

New developments over a certain size or energy expenditure (particularly cooling/heating) should incorporate green roofing/walls/infrastructure. Energy savings have already been demonstrated for several large-scale projects with green roofing. All buildings should have facilities to recycle paper, plastic, cans, food, glass, textiles, batteries and electronics and more, without having to make special trips to a large recycling centre which might be miles away from home. These will be linked with regional recycling centres. Where materials are not recyclable, they should be biodegradable. These could then be sent to biodegrading facilities (which already exist in Scotland), retaining jobs and money in the economy. As much as possible, materials used should be re-useable, recyclable or biodegradable.

Research and development into new and alternative materials should be supported. An urgent shift away from plastic is required; there is worldwide demand for suitable alternatives. Scotland could become a major developer and manufacturer of such materials, especially with its forest industry.

The development of hydrogen as a fuel source should continue to be supported. Sources of more potent greenhouse gases, particularly fluorinated gases and N₂O, should be identified and action taken to drastically limit these emissions (e.g. development of butane-cooled refrigerator units or other technologies). This could also create economic opportunities. Scotland should aim to be a world leader in green technologies and encourage its trade.

8. Just transition

To make places more inclusive, diverse, vibrant, resilient and empowering we should ensure equitable access to greenspace (both in terms of amount and quality), sustainable transport routes and blue-green infrastructure. Greenspaces should be connected and provide a green 'highway' to all areas of towns and cities. This change of focus from the current situation will make communities more self-contained and resilient, less reliant on travel out of local areas for basic goods and services, and less reliant on large, globalised or centralised networks for energy, food or water supply. All of these factors, whether they result in local generation of power stations supplying single neighbourhoods or community vegetable gardens and orchards providing access to greenspace and healthy food in deprived urban areas, will result in reducing the health inequalities that pervade these areas. For rural communities, being more self-contained will reduce their carbon footprint and the costs of living in such areas, and coupled with good public transport will reduce the isolation of such communities. Access to nature and fostering nature connectedness has been shown to have significant impacts on mental and physical health⁹.

How should the 2021/22 Budget support a green and sustainable recovery and avoid locking in carbon; and what funding is needed in the ECCLR portfolio to deliver a green and sustainable recovery?

⁹ Bosch M. and Sang A.O. (2017). Urban natural environments as nature-based solutions for improved public health – A systematic review of reviews, *Environmental Research*, 158, pp. 373-384.

The ideas presented in the £1 Billion Challenge¹⁰ Scottish Conservation Finance Project developed by SEPA and the Scottish Wildlife Trust should be adopted. A number of financial mechanisms are recommended as ways for raising funds from private and public sources to secure nature conservation while at the same time providing social and economic benefits. There needs to be greater coherence across government strategies and funding to support the implementation of the £1 Billion Challenge route map for conservation finance.

Funding priorities should be those which deliver the quickest and easiest ‘wins’. As the key contributors to carbon emissions, investment should therefore seek to improve food production systems, transport infrastructure and domestic and commercial heating systems. Equally, investment in nature-based solutions is integral to the green recovery.

The Scottish National Investment Bank must invest in green and socially equitable innovative initiatives which deliver a positive impact for communities and the environment. Bringing forward its ability to issue bonds will be a valuable tool to “effectively address Scotland’s grand challenges”. Support should be given to companies whose business model is closely aligned to the Scottish Government’s social, environmental and climate objectives. In providing financial support to businesses, there could be a mandatory requirement to report on their natural capital impacts. We would be able to help the Scottish Government to develop what these reporting mechanisms look like.

General response

It is important to build on the lessons learned during the Covid-19 response. We need to link recovery to climate action, and more widely also the Sustainable Development Goals. We must ensure that the main focus for recovery is not just on carbon emissions. The climate emergency and biodiversity crisis are inextricably linked. We cannot address one without addressing the other as well. There needs to be an emphasis on natural capital accounting and ensuring that nature’s value is included in recovery packages, including supporting climate- and wildlife-friendly agriculture and restoring carbon-rich habitats.

We need to be aware of unintended consequences on the natural environment if there is a rush to get the economy moving again without full considerations. We suggest that government needs to undertake impact assessments on all of their Covid-19 recovery investments. This would ensure that we are not taken off course and the Scottish Government can deliver on their ambition to enhance and restore the natural environment, now and for future generations. Biodiversity Net Gain and natural capital approaches are integral to this.

We need further investment in digital connections for all communities to improve connectivity and reduce the need for travel on roads or by air. This could include digital access to key services such as education and some aspects of healthcare, thereby reducing some of the issues with isolated rural communities and deprived urban communities and reducing the need for large-scale transportation infrastructure that can damage our natural spaces. Further investment in rail freight, including further electrification of rail lines, would also help to reduce the need for road and air transport.

There needs to be acknowledgement that all people in all walks of life have a valuable and equal role to play in developing a green and sustainable recovery. Social cohesion is integral in mobilising everyone to do something for the common good. Covid-19 has highlighted just how inextricably linked the health of the natural environment is to the health of the human race.

¹⁰ The £1 Billion Pound Challenge - Route Map from the Scottish Conservation Finance Project https://scottishwildlifetrust.org.uk/wp-content/uploads/2020/05/202001_1-Billion-Challenge-Documents_FINAL.pdf