Institute and Faculty of Actuaries

15 April 2021

Environmental Audit Committee inquiry into Biodiversity and Ecosystems

The Institute and Faculty of Actuaries (IFoA) is a royal chartered, not-for-profit, professional body. We represent and regulate over 32,000 actuaries worldwide, and oversee their education at all stages of qualification and development throughout their careers.

Actuaries are experts in risk management. IFoA's members use a variety of statistical tools and techniques to model the financial impacts of potential future scenarios and to identify risks. They work in a range of roles across the financial sector, including within insurance, pension funds and, increasingly, also banks. The IFoA has created a Biodiversity and Natural Capital Working Party to consider and promote the urgent need for actuaries to take into account the importance, perils and impacts of global biodiversity risks. It also seeks to promote the role of finance in addressing the risks of biodiversity loss.

Although still developing our understanding about the most appropriate use and structure of natural capital accounting, both within government and business we are of the view that biodiversity loss poses serious risks for societies, economies and the health of the planet. We are supportive of efforts by World Wide Fund for Nature (WWF), Carbon Disclosure Project (CDP) and others to measure biodiversity loss and impact of deforestation, both of which are amplified by, and amplifying of, climate change impacts. We are also very supportive of the findings of The Dasgupta Review. In particular, we believe the natural capital inequality $Ny/\alpha < G(S)$ should be put at the heart of the government's economic objectives and setting of financial regulatory framework. At a minimum, regulators should *have regard* to retaining economic activity within sustainable resource limits.

As illustrated in Professor Dasgupta's report, the application of biodiversity metrics and management within economy, business and financial risks is an incredibly nascent subject. We have struggled to find suitable data, tools or even frameworks to address any of the questions the actuarial profession is seeking to understand and the risks it is seeking to measure. Moreover, the new, complex and interconnected nature of Biodiversity risk makes it hard to model. The interconnectedness of systemic risks can lead to tipping points with outsized and extreme financial impact. As an example, and whilst it is not possible to directly related COVID-19 to biodiversity loss, many factors leading to biodiversity loss are undoubtedly linked to increases in the risk of zoonotic diseases outbreaks.

The integration of biodiversity risks into the financial regulatory system is incompatible with the current single framework and single value approach of neo-classical economics that underpins our current financial regulatory framework. A fundamental shift to a pluralist set of economic frameworks, values, pathways and judgement is required. This is the most important, but also most challenging aspect.

Given the challenges outlined above, and the nascent nature of our understanding of the financial impacts of biodiversity loss, we have not offered specific recommendations for remedy and integration into the governance of governmental objectives and financial regulation. Rather, we have illustrated the rethinking that we believe is required. In the meantime, we recommend duplicating the successes that have helped in the

Beijing	14F China World Office 1 · 1 Jianwai Avenue · Beijing · China 100004 · **Tel**: +86 (10) 6535 0248
Edinburgh	Level 2 · Exchange Crescent · 7 Conference Square · Edinburgh · EH3 8RA · **Tel**: +44 (0) 131 240 1300
Hong Kong	1803 Tower One · Lippo Centre · 89 Queensway · Hong Kong · **Tel:** +852 2147 9418
London (registered office)	7th Floor · Holborn Gate · 326-330 High Holborn · London · WC1V 7PP · **Tel**: +44 (0) 20 7632 2100
Oxford	1st Floor · Park Central · 40/41 Park End Street · Oxford · OX1 1JD · **Tel**: +44 (0) 1865 268 200
Singapore	163 Tras Street · #07-05 Lian Huat Building · Singapore 079024 · **Tel**: +65 6906 0889

www.actuaries.org.uk

ongoing understanding and integration of climate related risks. 20 year ago, the mainstream understanding and integration of climate risks was in a similar position to biodiversity today. We highlight the areas we think have been particularly material in transforming the approach for climate risk.

Create the narrative for an inevitable biodiversity policy response

When compared with climate change, the primacy for Government action to address biodiversity and ecosystem loss is not yet apparent at national and global levels. However, as the realities of biodiversity loss become increasingly apparent, it is likely that the need to act will rise up the policy agenda and governments will be forced to take action. This raises questions about when governments will act, what policies they will use and where the impact will be felt.

For asset owners, a powerful intervention has been the framing of the financial market impact of the climate policy changes as an "inevitable policy response to climate change" [1]. This work was led by the Principle of Responsible Investments (PRI). It and analysed the impact of a rapid market repricing to inevitable policy responses by global governments. This illustrated the associated portfolio risks, which has been a powerful tool to engage asset owners and fiduciaries in managing these risks.

In the same way that the IPR forecast does for climate change, we recommend building a parallel narrative around the policy response to the risks of biodiversity loss and thus its financial market impacts would help engage investors in the management of biodiversity risks.

The role for regulators and professional bodies

The Dasgupta Review has raised many questions for governmental policy, objectives and regulatory framework. Addressing these questions will be complex and challenging, particularly as addressing biodiversity risks, in an economic sense, will requires moving beyond the simplistic notion of value being equated with market price. As an immediate step, we recommend the following actions:

1. Natural Capital inequality $Ny/\alpha < G(S)$ is placed at the heart of the government's economic objectives and setting of financial regulatory framework; and
2. Developing an understanding of economic and financial impacts of biodiversity risks, and the development of parallel paths and initiatives that have generated success for Climate Change risks. This includes parallel paths for TCFD, Supervisory Statements, Stress Tests and Green Finance Education Charter.

To parallel TCFD, we support ongoing efforts to establish Taskforce on Nature-related Disclosure for the purposes of developing a reporting framework. The Prudential Regulation Authority (PRA), the Financial Reporting Council, and the Financial Conduct Authority (FCA) should seek to raise awareness, provide guidance and mainstream these requirements.

In 2019, the PRA published supervisory statement, *SS3/19 - Enhancing banks' and insurers' approaches to managing the financial risks from climate change.* It outlined the PRA's expectations for how their regulated firms should manage the financial risks of climate change. It included expectations around governance, risk management, scenario analysis and disclosure. This has been very helpful in engaging financial firms on these risk and the feedback it's generated on best practices. The PRA could adopt a similar approach to encourage firms to develop their approach to managing the financial risks of biodiversity and ecosystem loss.

The Bank of England could also support firms to develop their understanding by preparing them to consider nature-related risks through future stress testing exercises. The Bank's Insurance Stress Test for 2019 included an exploratory exercise into climate change.[2] To build on this, the Bank plans to launch the 2021 Biennial Exploratory Scenario (the Climate BES) in June 2021. The Bank could consider adopt a similar

[1] https://www.unpri.org/inevitable-policy-response/what-is-the-inevitable-policy-response/4787.article
[2] https://www.bankofengland.co.uk/climate-change

approach and consider whether it might be appropriate to include an exploratory exercise into biodiversity loss in future exercises. While it is likely that we are some time away from being able to confidently rely on the results of nature-related stress testing to inform its decision making, these steps will encourage firms to start thinking about their exposure to nature-related risks.

Finally, the Green Finance Education Charter[3] has galvanised professions within the financial sector, including bankers, insurers, financial analysts, accountants and actuaries, to become better educated, and more aware, of climate related risks and the ways in which they can be managed. We recommend this effort is repeated for Biodiversity risks.

Natural capital and natural capital solutions

Biodiversity could be protected is by measuring its economic value. Nature could be described in terms of natural capital, whereby nature is valued based on the natural resources it contains and the environmental services it provides for economic and social well-being. By reimagining the value of public goods, this would invite public goods into a financial setting, and may incentivize the investment of private finance.

The Green Finance Institute was established in 2018 to identify an unlock barriers to channelling capital towards an inclusive, net-zero carbon and resilient economy. The Impact Investing Institute, established in 2019, has the similar mission of accelerating the growth, and improving the effectiveness, of the impact investing market in the UK and internationally. These bodies have uncovered a number of legal and regulatory structural barriers within our financial services system that impede the flow of capital for institutional, and especially individual, savers to investing in new greening and impact projects. It is too early to say whether a parallel body should be created to focus on biodiversity related natural capital solutions, or whether a biodiversity focus should be embedded into these institutions. However, we recommend efforts are applied to address these structural barriers which will also impede the flow of capital towards natural capital solutions.

Separately, there is a potential scope to reimagine the role of insurance. At present, insurance typically prices for, and offers protection against, an individual's risk. Reimagining of the role of insurance could see it play a more active role in helping mitigate risk as a public good for a collection of individuals. This could be applied in the investment in natural capital solutions to prevent flooding and other loses. For example, salt marshes in the UK have been shown to reduce wave height by up to 80 percent and prevent soil erosion.[4]

Fiduciary Duty impediments

Finally, it is important to recognise the regulatory barriers that impede the integration and management of climate related-risks. In particular, the many facets of the Law Commission's 2014 report, create – directly or by anticipation – barriers to integration of climate (and biodiversity) risks into the Fiduciary Duties of Investment Intermediaries.

The report considered how fiduciary duties applied to those working in financial markets, and clarified how those who invest on behalf of others may take account of non-financial factors.[5] The report concluded that trustees should take into account factors which are financially material to the performance of investment, including ethical or environmental, social or governance (ESG) factors. With regards to non-financial factors, the report concluded that, while the pursuit of financial return should be the predominant concern, pension trustees can base their investment decisions on these factors where two tests are meet. Non-financial factors can be taken into account where trustees have good reason to think that scheme members share the concern, and where there is no risk of significant financial detriment to the fund. This two-step process creates barriers

[3] https://www.actuaries.org.uk/news-and-insights/news/ifoa-signs-green-finance-education-charter
[4] https://www.nature.com/articles/ngeo2251
[5] https://www.lawcom.gov.uk/project/fiduciary-duties-of-investment-intermediaries/

and complexity, leading fiduciaries to believe they do need to consider these risks. Furthermore, the Law Commission heavily reduced the stewardship responsibilities of investment intermediaries.

Given the developments in the understanding of climate and sustainability risks, alongside increased stewardship expectations and regulations since publication of the Law Commission report we believe both these elements should be urgently reviewed:

1. The report created a false dichotomy between financial and non-financial factors. In the long run, many typically attributed non-financial factors within ESG frameworks can be considered to be a financial factor. Current thinking is that the fundamental basis of the split between financial and non-financial is flawed. Furthermore, usage of these terms is not well defined within financial industry. Accounting bodies often refer to sustainability and climate reporting as “non-financial” whereas from a financial risk perspective these can be very material financial risks.
2. The reports comments on Stewardship (absence of requirement) are at odds with both subsequent regulations, for example, those addressing the Shareholder Rights Directives, and the general, fiduciary and societal need for better stewardship of the financial system.

Reviewing the Law Commission report is likely to help address the current impediments to the engagement and financial alignment from fiduciaries.

Should you want to discuss any of the points raised please contact Faye Alessandrello, Policy Manager (faye.alessandrello@actuaries.org.uk) in the first instance.