Key takeaways

Biodiversity loss and environmental degradation create demonstrably material risks for the UK economy and financial sector, in addition to their wider social impacts. These impacts are near and present; reflecting the significant decline in the functioning of critical ecosystem services in the UK and around the world. While the analysis presented in this report is preliminary, these conclusions are clear and supported by multiple lines of evidence. Our headline findings include:

1. **The deterioration of the natural environment in the UK and around the world could slow economic growth and lead to major shocks that could result in GDP being 6% lower than it would have been otherwise by the 2030s under two scenarios and 12% lower under an AMR-pandemic scenario.** This is equivalent to wiping around £150-300 billion off GDP. These are greater than the impact on GDP experienced in the Global Financial Crisis, in which UK GDP fell by around 4% to 6%, and - for the AMR-pandemic scenario - greater than the GDP impact of the COVID-19 pandemic when GDP fell 11% over 2020.
2. **Gradual (chronic) year-to year environmental degradation is as detrimental or more so than climate change.** Chronic changes in ecosystem health alone, for example due to local air and water pollution and global deforestation, create material impacts. The 'pure' nature-related impacts (no climate change) on growth are equivalent to around a 3% GDP reduction versus baseline growth in the coming decade and much more in an acute shock scenario and over the longer term. This means that nature-related risks are doubling the scale of physical climate related risks based on NGFS scenarios.
3. **Environmental degradation increases the chance and impacts of an acute climate or health shock, and the combined effect would have a very material impact on the economy.** For example, soil degradation, invasive species and pests amplify the climate impacts on agriculture, and impacts of climate on ecosystems amplify the health risks.
4. **For two of the scenarios, the chronic year-to-year environmental degradation is as damaging as the more sudden acute shocks.** Gradual environmental degradation constitutes around half of the size of the acute shocks by the early 2030s - for example, with domestic scenario chronic impacts of 3% GDP compared with 6% for the acute shock - and continues to worsen over time without action.
5. **In reality, the impacts of biodiversity loss and environmental degradation will not be felt alone but will compound with climate risks.** Both are happening at once and there are strong feedback effects between the loss of natural capital and climate change. We find that the compounding of nature- and climate-related damages could result in UK GDP that is more than 8% lower than it would otherwise be by the 2030s, or 14% in an extreme scenario of an ecologically-driven health crisis combined with climate change.
6. **Around half of UK nature-related risk comes from overseas, through supply chains and financial exposures.** Our analysis shows that the £3.8 trillion of UK financial assets assessed depend upon many trillions more globally, of which the majority have a high or very high dependence on nature. Exposures to overseas risks are most material (in financial terms) for the services and manufacturing sectors. The highest risks across sectors are derived from nature's provision of water and nature's ability to regulate climate, moderating the risks of floods, storms and drought.
7. **Looking across the portfolios of the seven largest UK banks, the analysis indicates possible near-term adjustments in the values of domestic holdings of up to 4-5% for particular sectors and banks from nature-related risks alone** (no climate change). The study conducts the first (independent) aggregate financial 'stress test' of banks for nature based on publicly available data. Different banks show very different risks in terms of their scale and characteristics depending on the structures of their portfolios. Depending on the bank, the most at-risk sectors include agriculture, utilities, real-estate and manufacturing. The 4 – 5% is conservative. These risks will compound with climate change and increase over time. The broad and correlated nature of these risks indicate that in the longer-term, nature-related risks could may be a threat to financial resilience.
8. **The agricultural sector is most at risk in percentage terms, but the largest risks in economic terms are to the services and manufacturing sectors.** Manufacturing risks come largely via supply chains and predominately related to loss of regulation of water quantity and quality disrupting production processes. Construction is also highly exposed due to land use change and raw material consumption and this is a particularly important driver of risk to financial institutions with high real-estate exposures.