

**Written evidence submitted by Dr Amama Shaukat (Brunel University London),
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**Response to the call for evidence on the role of natural capital in the green economy
by the parliamentary Environmental Audit Committee**

Introduction

- **Amama Shaukat** is a Reader (Associate Professor) in Accounting and Finance at Brunel Business School, Brunel University London. She teaches and researches in the areas of sustainability performance and reporting and is a highly cited and influential author in these areas. She regularly referees papers for many top journals and is a member of the editorial boards of British Accounting Review, Accounting Forum and Journal of Business Ethics. Dr Shaukat's research is currently informing policy on sustainability reporting as she continues to work with the European Financial Reporting Advisory Group (EFRAG) on their European Sustainability Reporting Standards (ESRS) development project.
- **Grzegorz Trojanowski** is Director of Research and Impact and Professor of Finance at the Department of Finance and Accounting at University of Exeter Business School. He also serves as a member of the Ethics Oversight Committee for P1 Investment Services Ltd. His academic expertise spans areas of corporate finance, corporate governance, ESG and corporate social responsibility, corporate reporting, top management teams, and gender issues in business and management. His research focuses on topics including mergers and acquisitions, determinants and consequences of ESG reporting and performance, executive compensation and turnover, payout policy, governance role of shareholders and of company directors, as well as the links between corporate governance and corporate social responsibility.
- **Quintin Rayer** is Head of Research and Ethical Investing at P1 Investment Services Ltd. He has worked for actuarial and investment consultancy firms and a multi-national European bank, including broad experience in quantitative fund and risk analysis. He is a Fellow of the Institute of Physics, a Chartered Fellow of the CISI and a Chartered Wealth Manager. Quintin has applied skills gained from his Oxford University Physics Doctorate and while working in engineering to finance. He is the second UK graduate from the Sustainable Investment Professional Certification (SIPC) programme. In January 2017 Quintin joined P1 Investment Management, founding their ethical and sustainable investing proposition.

Given our expertise in the subject matter (as detailed above) and our interest as concerned stakeholders, we believe we are well-positioned to address the questions that the Committee plans to examine during its inquiry. In doing so, we draw on our recent and ongoing academic research and relevant industry experience.

1. What potential contribution can private capital investment make to measures to secure nature recovery?

2. How can investment best be aligned with environmental benefits, so as to achieve or surpass the Government's targets for nature recovery?

- Natural resources provide the fundamental raw material that businesses use in the production and sale of their goods and services. Continued and sustainable provision of many of these natural resources depends on the proper functioning of the natural ecosystem – what could be termed as the Earth's business model. This proper functioning of ecosystem has been severely jeopardised due to the overexploitation of natural resources by businesses and the resulting natural environmental pollution, depletion, and degradation (what we collectively term as natural environmental agency costs (NEACs)).¹ It is therefore now in the rational strategic interest of business to reverse this environmental degradation, create natural environmental value, and secure nature recovery. We find evidence that responsible environmental performance leads to improved future financial performance and reduced financial risk. Hence, strategic private capital investments that mitigate/eliminate NEACs relevant to a specific business sector can play a key role in nature recovery.
- However, addressing business environmental externalities (NEACs) could suffer from free-riding problems. Therefore, we stress key mechanisms facilitating NEAC-reducing investments such as well-developed, dramatically expanded markets for ecosystem services (see Point (3) below as well), improved environmental reporting and transparency (see Points (4) and (5) below as well), and harmonisation of environmental investment and reporting standards (see Points (4), (5), and (8) below).
- Regulation is likely to play a key role in facilitating greening of the economy. Possible regulatory changes promoting investment to prevent further depletion of natural resources and securing nature recovery could include the following:
 - Better enforcement of existing environmental rules, possibly combined with significantly increased penalties for environmental damage. Such fines could also

¹ A. Shaukat, R. Tharyan, G. Trojanowski (2023). *Towards the Natural Environment Agency Theory (NEAT)*. Available at SSRN: <https://ssrn.com/abstract=4519832>.

- be linked to the size of offending businesses (e.g., linked to revenues) to maximise their deterrent effect (i.e., to prevent larger corporations from being able to treat environmental externalities as an “acceptable cost” of their activities).
- Explicitly recognizing and labelling CO₂ as a pollutant (as it was, e.g., in the US in 1965)^{2,3} in all relevant environmental regulations and regulating emissions accordingly.
 - Removal of financial support for environment-harming energy generation (e.g., tax breaks, subsidies, etc.), but also by tightening of advertising rules (to avoid greenwashing), banning advertising and event sponsorship by environmentally harmful businesses such as fossil fuel companies (as it is currently the case for tobacco products).
 - Introduction of measures to remove (some) of the obstacles to climate-related litigation. For example, legislation or court guidance to specify what can be deemed as sufficient evidence of climate or environmental damage.
- Importantly, pressure by other affected societal stakeholders could also play a significant role here.⁴ For instance, oil and gas companies face pressure from various constituencies to reduce carbon emissions. Hence, by themselves and by forming partnerships with specialised nature recovery-oriented businesses they can invest in environmental carbon reduction via setting up of carbon capture units, creating carbon sinks, protecting existing sinks and reserves, etc.

3. What measures are necessary to (a) establish and (b) maintain the high-integrity markets in ecosystem services which are expected to attract private investment? What confidence do investors currently have in the UK’s arrangements for these markets?

- Current arrangements for markets in ecosystem services fall well short of the ambitious goals envisaged. The existing markets are very limited in scope, i.e., they relate to only very few aspects of natural capital degradation (leaving out many aspects of business environmental impacts such as, e.g., biodiversity loss). Moreover, the quality of existing offset schemes varies a lot (partly due to differences of the corresponding certifying

² Q. Rayer, K. Haustein, P. Walton (2021). *Water Insecurity and Climate Risk: Investment Impact of Floods and Droughts*. In: T. Walker et al. (eds.), *Water Risk and Its Impact on the Financial Markets and Society*, Palgrave Studies in Sustainable Business in Association with Future Earth, https://doi.org/10.1007/978-3-030-77650-3_6.

³ US White House. (1965). *Restoring the quality of our environment*. Report of the Environmental Pollution Panel, President’s Science Advisory Committee Washington. Washington: US Government Printing Office.

⁴ A. Shaukat, R. Tharyan, G. Trojanowski (2023). *Towards the Natural Environment Agency Theory (NEAT)*. Available at SSRN: <https://ssrn.com/abstract=4519832>.

bodies in terms of criteria and the rigidity of applying to approve offset projects), undermining investor and consumer confidence in such voluntary markets.^{5,6,7} Last but not least, even for the externalities covered (e.g., carbon emissions), for many emitters the participation in these markets is voluntary rather than mandated. In the light of our research,⁸ we would urge the scope of mandatory participation in the markets for ecosystem services to be dramatically expanded to push the corporate sector to fully internalise negative environmental externalities (of pollution, depletion, and degradation of natural capital) generated in the process of production and sale of goods and services.

- We would recommend supporting the BSI (British Standards Institution) in developing a PAS (Publicly Available Specification) as a standard to define minimum offset requirements. This is an approach already being followed by the UK Government's Department for Business, Energy & Industrial Strategy for sustainable finance (PAS 7340, 7341, and PAS 7342 under development).^{9,10} Standards developed within the UK can be rolled out via the International Standards Organization, promoting UK leadership as well as giving UK companies an advantage through earlier adoption of standards when they are solely UK-based (a point also relevant for Points (7) and (8) below).
- Standards defining minimum offset requirements need to be strongly aligned with the developing climate science (much of it from leading UK researchers). For instance, clear distinctions need to be drawn between offset credits which directly reduce physical atmospheric carbon dioxide levels (i.e., remove CO₂ from the atmosphere, so-called "negative emissions") and those which provide economic "nudges" to reduce emissions or are credits for displacing higher-emission technologies (which can easily be "gamed")

⁵ Q. Rayer, S. Jenkins, P. Walton (2022). *Defining Net-Zero and Climate Recommendations for Carbon Offsetting*. In: T. Walker et al. (eds.), *Business and Policy Solutions to Climate Change*, Palgrave Studies in Sustainable Business In Association with Future Earth. https://doi.org/10.1007/978-3-030-86803-1_2.

⁶ Q. Rayer, P. Walton (2022). *Risk-Rating GHG Emissions Offsets Based on Climate Requirements*. In: T. Walker et al. (eds.), *Business and Policy Solutions to Climate Change*, Palgrave Studies in Sustainable Business In Association with Future Earth. https://doi.org/10.1007/978-3-030-86803-1_8.

⁷ R. S. Kaplan, K. Ramanna, M. Roston (2023). *Accounting for Carbon Offsets – Establishing the Foundation for Carbon-Trading Markets*. Stanford Sustainable Finance Initiative Precourt Institute for Energy, February 2023, BSG Working Paper No. BSG-WP-2023/051, Harvard Business School Research Paper No. 23-050, Available at SSRN: <https://ssrn.com/abstract=4362921>.

⁸ A. Shaukat, R. Tharyan, G. Trojanowski (2023). *Towards the Natural Environment Agency Theory (NEAT)*. Available at SSRN: <https://ssrn.com/abstract=4519832>.

⁹ PAS 7340:2020 Framework for embedding the principles of sustainable finance in financial services organizations – Guide. British Standards Institution, January 2020.

¹⁰ PAS 7341:2020 Responsible and sustainable investment management – Specification. British Standards Institution, October 2020.

by comparison with hypothetical high-emitting alternatives). Emphasis must also be placed on the permanence of storage for carbon removed (permanence on geological timescales is required, i.e., more than 10,000 years) and non-reliance on technologies which are not yet developed, or not yet proven at necessary scales. Overall, offset standards should require that the process of emissions followed by compensating offsetting does not increase climate risk (i.e., the risks of climate change not being controlled because offsetting fails in some manner).

4. What contribution will data from the Natural Capital and Ecosystem Assessment (NCEA) programme make to the objective measurement of changes in environmental outcomes?

5. How can the proposed UK Green Taxonomy support high-quality investments which deliver genuine benefits to nature? What financial disclosures should the taxonomy require?

- We find the taxonomy approach to be highly problematic. In particular, it could undermine environmental innovation: only projects using (existing) technologies deemed green by the taxonomy would be sought after, while alternative (future) technologies may not benefit from such a designation. In other words, it would be akin to the regulators picking winners in technological space rather than rely on the market mechanisms. This could divert investment that could maximise positive environmental impact and thus undermine the goals of NCEA.
- Instead of the taxonomy approach, we would advocate that “greenness” of investments is assessed based on objective indicators capturing their environmental impact (e.g., in the case of energy generation, cut-off rules based on characteristics such as CO₂ emissions per kWh generated or land area required per kWh generated).
- Nevertheless, we appreciate the focus on disclosures pertaining to green investment. Crucially, such disclosures should not just cover financial information (e.g., amounts invested), but should also contain non-financial information, detailing environmental impact of the investment undertaken on a “cradle-to-cradle” basis (with specific reference to addressing business specific environmental externalities, i.e. NEACs). The data from NCEA could be of particular relevance here. Such a transparency would mitigate the aforementioned free-rider and greenwashing problems (see also Points (1) and (2) above), is essential for building trust with stakeholders (including investors), and for mobilising stakeholder pressure on environmental laggards.

6. How can the operation of natural capital markets ensure genuine net gains for nature? How do such markets address the risk of ‘greenwashing’ of

investments and the offsetting of natural recovery in the UK against environmental degradation elsewhere?

- The answer to these questions is closely related to the discussion on Point (3) above. Improved certification standards for offset markets would mitigate the risk of ‘greenwashing’, build trust in the system among investors and customers, and lead to better environmental outcomes of investments.
- Moreover, international harmonisation of rules and global integration of markets for ecosystem services should reduce the likelihood of “offshoring” of negative environmental externalities (see also Points (7) and (8) below).

7. What role can the UK’s financial markets play in developing the flow of international capital into the development of the UK’s natural capital?

- The answer to this question is closely related to Point (3) above. If the markets are properly developed (based on sound underlying principles) and the mandatory participation in them is dramatically expanded, it is likely to be conducive to achieving the goal of attracting capital.
- Moreover, as pointed out in Point (8) below, if the corresponding efforts are co-ordinated internationally, it would create global market for ecosystem services, with the UK being an important part of it.

8. What role does the UK have in establishing international standards for natural capital investments, alongside other jurisdictions and financial centres?

- We believe that the efforts of establishing international standards for natural capital investments should be co-ordinated internationally (alongside other jurisdictions and financial centres). These would establish common agreed goals and level-playing field, thus preventing regulatory arbitrage. Unfortunately, to date the UK has not played a sufficiently leading role in establishing harmonised standards for evaluating green investments and the corresponding reporting. UK leadership in this area would prevent the UK from being a “rule-taker” and, would give UK companies a first-mover advantage through early adoption of UK-developed standards, as discussed earlier.

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