



POST (Parliamentary Office of Science and Technology): Review of evidence on sustainable land use / management

1. Description of the Project

[POST](#) is a bicameral body that bridges research and policy to ensure that the best available research evidence is brought to bear on the legislative process and scrutiny of Government (see [“POST at 30”](#) strategy). It is Parliament's in-house source of independent, balanced and accessible analysis of public-policy issues related to science and technology. POST's work, including its flagship briefings (POSTnotes and POSTbriefs), covers the areas of biology and health, energy and environment, physical sciences and computing, and social sciences.

One area of science in which there has been a surge in research and policy interest in recent years is sustainable land management (SLM): “the use of land resources, including soils, water, animals and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions” (United Nations definition). Scientists indicate that SLM is crucial; however it is a complex matter, with stakeholders identifying various issues and competing priorities.

The aim of this project is to conduct a review of the available evidence on sustainable land use and land management measures in the academic and grey literature, informed by the opinions of key experts in relevant areas, such as ecosystem services, agriculture and sustainable development. The review will take the form of a POSTbrief. As part of the project, the fellow will also produce a blog on the topic for POST's microsite and conduct dissemination activities.

2. Project Scope

Land management is a topic of increasing importance today. However, it is a complex issue, implicating many stakeholders and provoking a number of challenges. Experts articulate that there are many 'locked in' land management practices, based on knowledge, custom and capital, which will need to be transformed if the challenges of climate change, biodiversity decline, food and water security and reducing environmental pollution are to be addressed. Scientists argue a strategic approach to land-use would be the first necessary step to drive required changes, with activities such as the shift towards public goods, carbon sequestration, water and air quality, and wildlife protection.

However, the radical shift in land-use needed to meet the environmental challenges of the 21st Century will require long-term pathways that integrate knowledge across agronomy, nutrition, ecology, hydrology, climatology, economics, infrastructure engineering, the social sciences, and the analytical tools to understand synergies and trade-offs involved. Many of these issues were raised in the 2011 Government Office for Science Foresight Land Use in the UK in the 21st Century project, which highlighted the need for a knowledge-based approach to multifunctional land-use planning system that aims to integrate land, water, biodiversity, and environmental management to meet rising food, climate change adaptation and biomass demands, while sustaining biodiversity, ecosystem services and livelihoods.

In order that Parliamentarians may have access to concise, comprehensive, accurate and impartial information on the evidence around sustainable land management, this project would involve writing a POSTbrief report ([see our POSTbriefs for examples](#)) on the topic. More specifically, it would look at:

- The basic assumptions underlying what sustainable land use is, including questions such as: How to achieve sustainability in landscapes? How to measure it? And how does sustainable development improve current management and planning practices? Should sustainability be the main principle for future land use, considering the potential landscapes to enhance sustainability, or is sustainable landscape development a contradiction in terms as landscapes evolve as a reflection of social and economic needs? Can resilient landscapes be developed that have the capacity to absorb disturbance and reorganise while undergoing environmental change so as to retain essentially the same function, structure, identity and feedbacks?
- Concepts such as multifunctional land-use planning, what such a system would entail, and the evidence base it requires (the spatially specific land management options for the regions and landscapes of the UK).
- Current developments, potential future research avenues and possible policy options.

To produce this report, the fellow would conduct a review of sustainable land use/management academic and grey literature, including on the practices and technologies that aim to integrate the management of land, water, biodiversity, and other environmental resources and evidence of the effectiveness of policies that have been implemented in other countries. To complement this information, the fellow would also interview leading experts in this area and other key stakeholders, such as NGOs, industry bodies and relevant Government Departments and Agencies.

Once the report is completed, the fellow will conduct activities to ensure the report has impact. These could include social media activities to raise the profile of the report amongst stakeholders, a parliamentary launch event if a suitable sponsor could be found, and academic publications based on the work done for the initial report.

3. Skills/Expertise required

We are looking for an academic with a research background that either relates to environmental sustainability issues, landscape ecology/management, ecosystem services and/or planning. Previous experience in communicating complex scientific issues to a lay audience in a written or oral format is desirable, as are interviewing skills.

4. Expected Outputs

1. A POSTbrief on sustainable land management ([see our POSTbriefs for examples](#))
2. Additional outputs, such as an event, if time and resources allow.
3. If desired, other public dissemination of project learnings, e.g. academic article; other blog pieces. These may use the findings from output 1 and should be done in



5. Working Arrangements

The fellow will not need to be based in London; however for the start of the project, they will need to be in London for at least 2 or 3 days while the scope and plan for the project is being agreed. After this, regular progress update meetings will be needed, requiring one day in London every couple of weeks, but these will be less frequent once the intensive drafting stage of the project starts.

6. Expected Timeline

The POSTbrief report should be completed before the end of 2020, but the start date will depend on how intensively the fellow intends to work.

7. Contact

Dr Jonathan Wentworth, Environment Adviser, POST, wentworthj@parliament.uk