



IMPRESSIONS



www.impressions-project.eu

SCOTLAND CASE STUDY



Aim: To work with decision-makers to improve understanding of the impacts, risks, vulnerability and adaptation options associated with high-end climate and socio-economic scenarios for the rural economy of Scotland, including interactions between key sectors such as forestry, agriculture and tourism.

Theme: Land resource management, including forestry, land use change in agriculture (with links to the global scale through food and beverage trade and its effects on land allocation); links to tourism; and health impacts of the possible spread of Lyme disease.

Methods

- Interviews and workshops with decision-makers to provide opportunities for two-way learning.
- Advancing the CLIMSAVE Integrated Assessment Platform (IAP) for Scotland to analyse cross-sectoral interactions for urban, agriculture, forestry, biodiversity, water and coasts under high-end scenarios.
- Application of a detailed, process-based model of forest resources (ForClim) to assess the robustness of policy targets for extending Scotland's forested area under high-end scenarios.
- Development of agent-based models for sub-regions of Scotland which treat adaptation as a process by representing the behaviour of decision-makers, firms and institutions as learning and interacting land use agents.

PARTNERS

- University of Edinburgh
- Adaptation Scotland
- University of Oxford
- Cranfield University
- TIAMASG
- ETH Zurich, Switzerland
- PIK

Key outcomes

- Better understanding of the needs of Scottish decision-makers for developing robust strategies to cope with climate change.
- A set of integrated high-end climate and more extreme socio-economic scenarios for Scotland.
- An improved modelling platform for Scotland, integrating a detailed forestry model (ForClim), a tourism model, a Lyme disease model and various agent-based models with the CLIMSAVE Integrated Assessment Platform to enable analysis of interactions between different land use management sectors.
- New evidence on climate impacts, risks and vulnerabilities, and possible land-use adaptation options, to support the implementation of the Scottish Adaptation Strategy and Land Use Strategy.
- Support for decision-makers to incorporate adaptation to high-end climate change scenarios into their risk management strategies.
- A set of sustainable development transition pathways for Scotland that offer options for harmonising adaptation and mitigation strategies to enable Scottish society to adapt effectively to potential impacts under high-end scenarios and across multiple scales.
- Contribution of this case study to the central IMPRESSIONS knowledge network and Information Hub, which will support mutual learning.

For further information, see www.IMPRESSIONS-project.eu or contact:

Scottish Case Study Leader: Miriam Dunn, University of Edinburgh, miriam.dunn@ed.ac.uk

Project Coordinator: Dr. Paula Harrison, Environmental Change Institute, University of Oxford, paula.harrison@ouce.ox.ac.uk