# Modelling component: Assessment of large-scale plant biosecurity risks to Scotland from large scale plantings for landscaping and infra-structure projects (PHC2019\_05) and large scale tree plantings for environmental benefits (PHC2019\_05).

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Aims

* Review potential of models to address plant health risk in Scotland (July/August?)
* Explore qualitatively whether data and outputs such as mapped source regions and trade networks, arrival risk, climate suitability and pest host range have the potential to change decisions about which plants are selected for large-scale infra-structure projects and from which sources
* Assess the potential of socio-ecological models to inform the location, species and sources of plants for large-scale environmental restoration and woodland expansion schemes.

**Design - Produce training materials based on existing plant health models**

**Platform for interactive tools: Github pages. Could integrate**

**Alternative could be to create video where we demonstrate the tools, then follow up with questionnaire.**

**Possible materials to include**

**Figure showing the relationship between import volumes from source countries and probability of arrival of pests and pathogens (e.g. Dan’s GEB paper or Phytothreats). It would be good to provide some opportunities for participants to ask questions about the figure and the models underlying it. Short presentation / video?**

**Interactive maps of *Phytophthora* source distributions. Participants can click on the countries to get a list of the pathogens known to be present in that region. We will modify the existing pop-up tables so that species are ranked in order of risk of arrival to the UK, based on models of trade flows, climate matching and traits (thermal tolerance). It is probably not possible to do this specifically for Scotland with the available trade data.**

* + **Evaluation method for training (e.g. short pre/post-training survey)**
* **Recruit:**
  + **Focus group (online if required) of stakeholders identified mapping (3c)**
* **Conduct:**
  + **Training for stakeholders on using plant disease models**
* **Collect stakeholder feedback**

Who: CEH to lead with team assisting in sourcing new data and identifying opportunities for presentation/feedback.

Action 1: Refine existing models using any newly or collected or available data.

Action 2: Identify opportunities to present models to relevant stakeholders.

Action 3: Garner feedback on the models’ value as well as suggestions for future development.

## Questions for stakeholders

**Would you use this tool to inform your practices?**

**If yes, how could your practices change as a result of using these tools?**

**What modifications or additional information would you like to see in the tools or models to improve their usefulness?**

**In which format would you like such tools to be delivered? e.g. website, phone app**