

ESCOM Woodland Expansion Workshop WEAG Project

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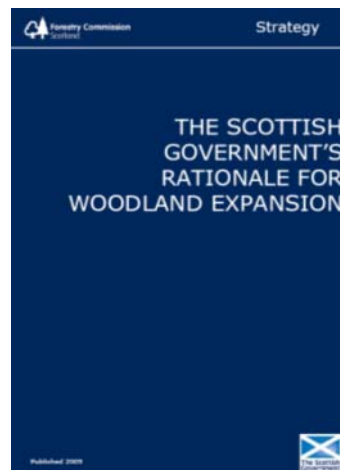
The Scottish Government is committed to increase the rate of planting to achieve a range of economic, social and environmental benefits, including:

- to meet carbon emissions reduction targets
- to underpin a sustainable forest products industry
- to deliver ecosystem services, economic and rural development benefits, biodiversity and environmental benefits...

Planting 100,000 hectares over 10 years (2012-2022) will increase woodland cover from 17% to 19% by 2022



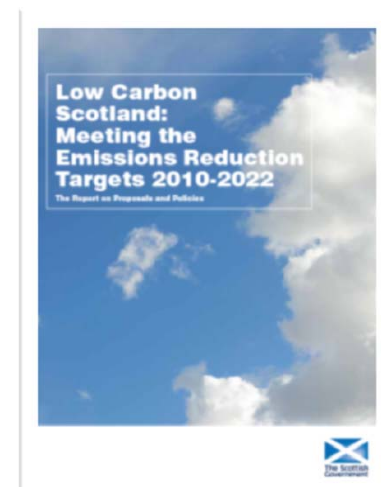
2006



2009



2010



2011

- The Woodland Expansion Advisory Group (WEAG) was established to provide advice on Proposal 7 of the Land Use Strategy (2011), to
- “identify more closely which types of land are best for tree planting in the context of other land-based objectives, and promote good practice and local processes in relation to tree planting so as to secure multiple benefits”.



Getting the best from our land
A land use strategy for Scotland



Woodland Expansion Advisory Group



To provide advice on which types of land are best for tree planting (Proposal 7 of the Scottish Government's Land Use Strategy)

Final report delivered June 2012

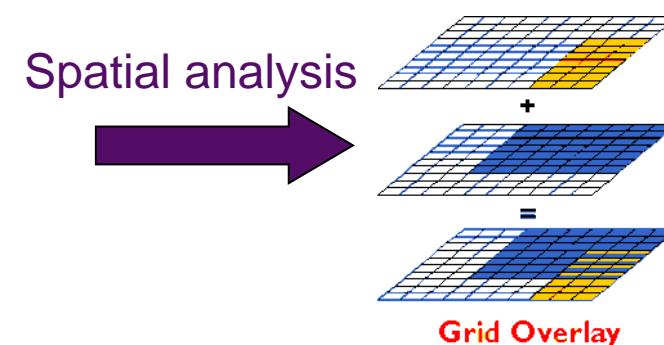
Scottish Government response October 2012



James Hutton Institute & FR collaboration contributed evidence in an assessment of the opportunities and constraints using GIS

- 24 datasets, containing:
 - Land cover
 - Forest inventories
 - Soils
 - Conservation and heritage designation
 - Catchments at risk of acidification
 - Land Capability for Agriculture
 - Agricultural databases
 - Ecological Site Classification (ESC) suitability for woodland
- Assigned Scotland's land area into **three zones of constraint** to expansion based on natural and policy constraints using **spatial analysis**

Datasets	Source (reference year)
National Forest Inventory	Forestry Commission (2011)
Native Woodland Survey of Scotland	Forestry Commission Scotland (2011)
Rural Development Contracts approved new grant schemes	Forestry Commission (2011)
Land Cover Scotland Map (LCS88)	Macaulay Land Use Research Institute(1988)
Land Cover Map 2000 ³ (LCM2000)	Centre for Ecology and Hydrology (2000)
1:250 000 National Soil Map	James Hutton Institute (1984)
Land Capability for Agriculture	James Hutton Institute (1982)
Sites of Special Scientific Interest	Scottish Natural Heritage (2011)
Special Protected Areas	Scottish Natural Heritage (2011)
Special Areas of Conservation	Scottish Natural Heritage (2011)
National Nature Reserves	Scottish Natural Heritage (2011)
National Scenic Areas	Scottish Government(2010)
Catchments at risk of acidification	Forest Research (2005)
Scheduled Monuments	Historic Scotland (2010)
World Heritage Sites	Historic Scotland (2008)
Battlefields	Historic Scotland (2009)
Gardens and Designed Landscapes	Historic Scotland (2011)
Historic Land use Assessment	Royal Commission on the Ancient and Historical Monuments of Scotland (2011)
Population centres	Ordnance Survey (2001)
Specially Identified Hill Areas	Scottish Office Agriculture, Environment and Fisheries Department (<i>unknown</i>)
Ecological Site Classification land suitability for woodland	Forest Research (2011)
Agricultural databases: Integrated Administration Control System (IACS); June Agricultural Census (JAC)	Scottish Government (2009)



Scotland's land area assigned to one of three broad categories:

Phase 1 Land predominantly unavailable for woodland expansion

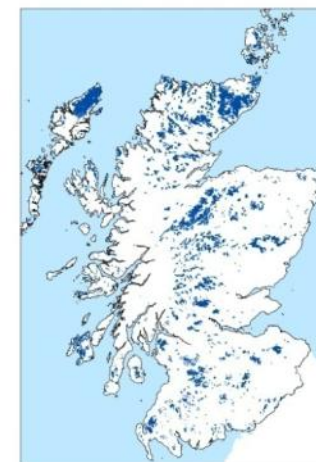
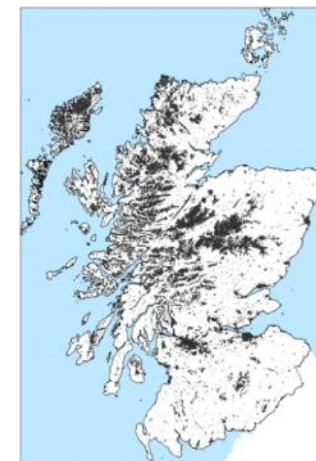
Phase 2 Land affected by national designations or policies which impose varying degrees of constraint on woodland expansion

Phase 3 Land not included in the first two categories and which is therefore most likely to have potential for significant woodland expansion

What is the potential for new planting in each category?

- The report does not replace or replicate local decision making processes at the national level
- The maps are intended to help us understand how the different constraints relate to each other
- The maps are not intended to indicate where trees should or should not go

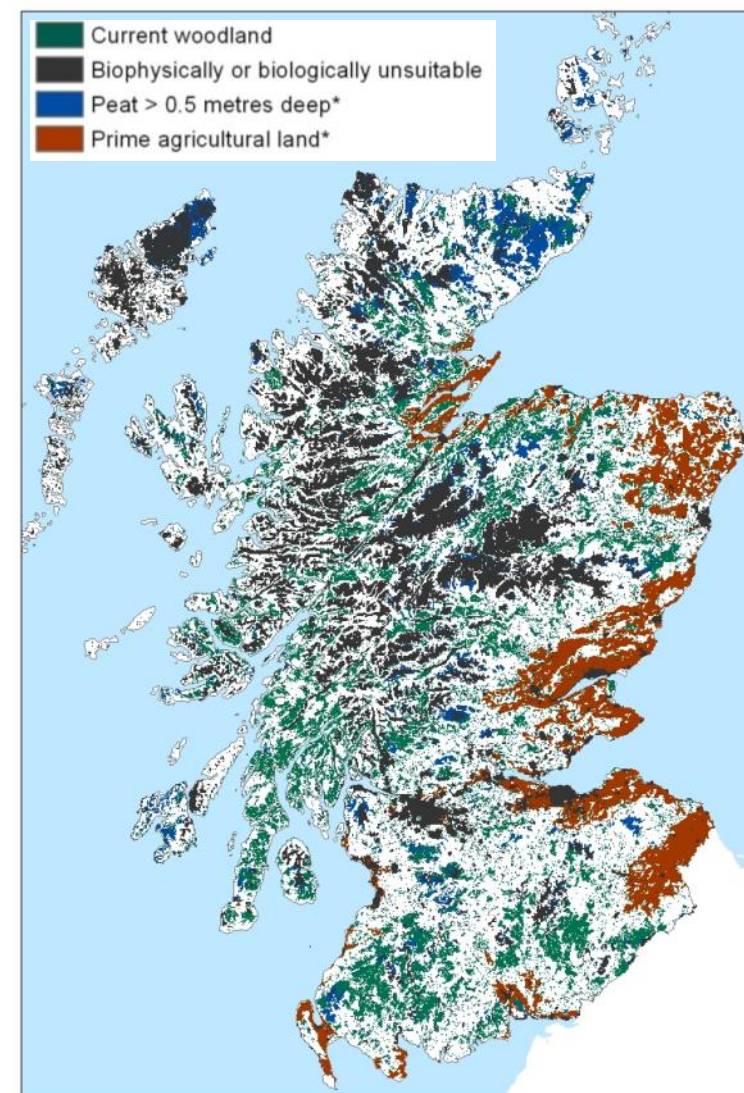
- Current woodland
- Land biophysically and biologically unsuitable for planting
 - Biophysically constrained land includes alpine, eroded peat, montane areas, water, built up areas (LCS88, LCM2000)
 - Biologically unsuitable land identified using Ecological Site Classification suitability model
- Policy restrictions
 - Prime agricultural land (Land Capability for Agriculture classes 1 – 3.1)
 - Areas of peat deeper than 0.5 metres (1:250 000 National Soil Map)



Land predominantly
unavailable for woodland
expansion

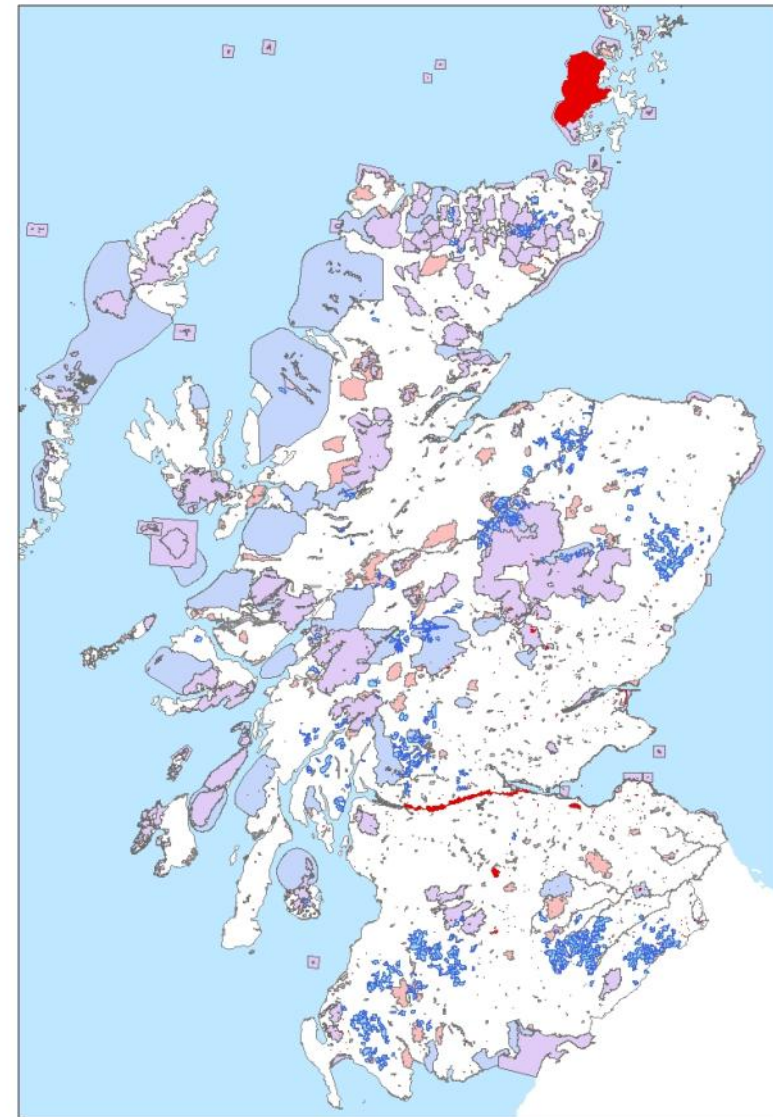
Current Land Use	Area (000 ha)	% Scotland
Current woodland	1 386	17%
Biophysically/biologically unsuitable	1 234	15%
Deep peat >0.5 metres	657	8%
Prime agricultural land (LCS 1- 3.1)	566	7%
Total	3 585	46%

- Limited opportunities for new woodlands
- Small in scale, eg small woodlands on farms, riparian woodlands, urban woodlands



* includes areas which overlap with biologically and biophysically unsuitable areas

- Conservation designations
 - Sites of Special Scientific Interest
 - National Nature Reserves
 - National Scenic Areas
 - Natura 2000:
 - Special Protection Areas
 - Special Areas of Conservation
 - Others:
 - RAMSAR wetland sites
 - UNESCO Biosphere reserves
- Water quality
 - Catchments at risk of acidification
- Heritage sites
- 500m buffer applied (indication of constraint to planting beyond the designation's boundaries)



Conservation designations: 1.59 million ha

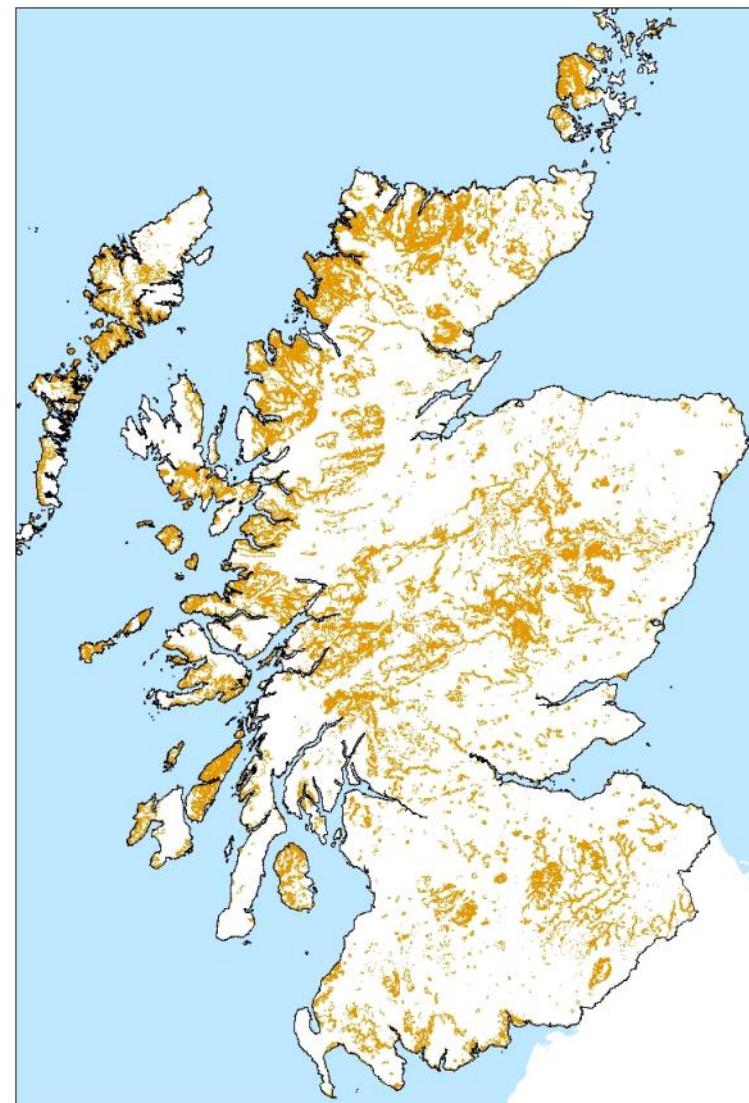
Catchments at risk of acidification: 51,000 ha

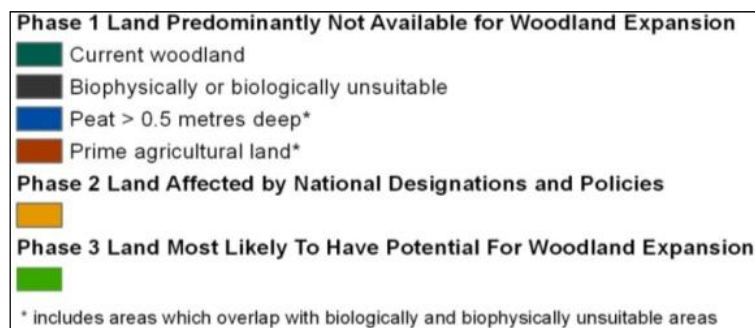
Heritage designations: 46,000 ha

**1.6 million hectares
20% of Scotland
affected by designations and/or
policies which may constrain
woodland expansion**

Opportunities depend on the objectives of the designation, given their focus most would be native woodland

Opportunities in catchments at risk of acidification likely to be restricted to broadleaves at lower elevations

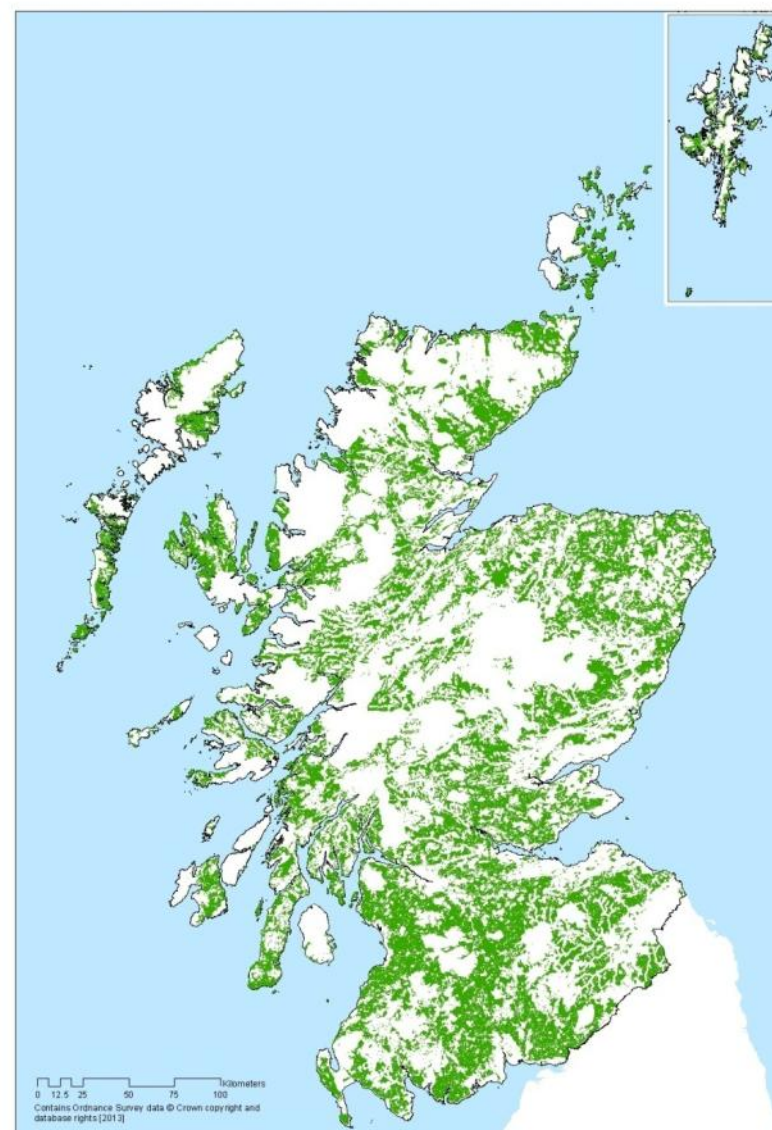




Category	Extent
Phase 1: Land that is predominantly not available for woodland expansion (current woodland, biophysically or biologically unsuitable land, prime agricultural land, deep peats)	3.59 m ha, 46% of Scotland
Phase 2: Land that is affected by national designations and policies which impose varying degrees of constraint on woodland expansion (conservation designations, catchment management and heritage sites)	1.60 m ha, 20% of Scotland
Phase 3: Land not included in the first two categories and which is therefore most likely to have potential for significant woodland expansion	2.69 m ha, 34% of Scotland

Characterised Phase 3 land:

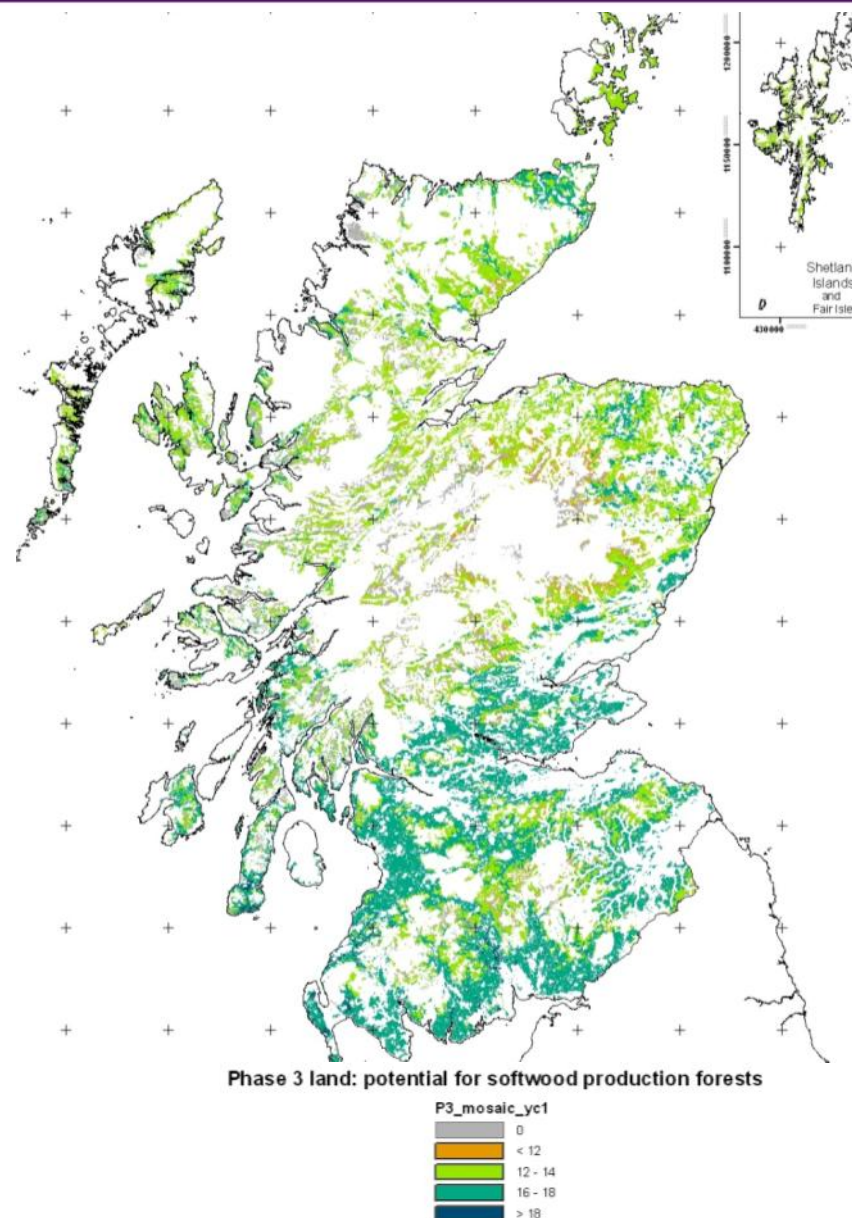
- suitability for woodland
- current land use
- proximity to population centres



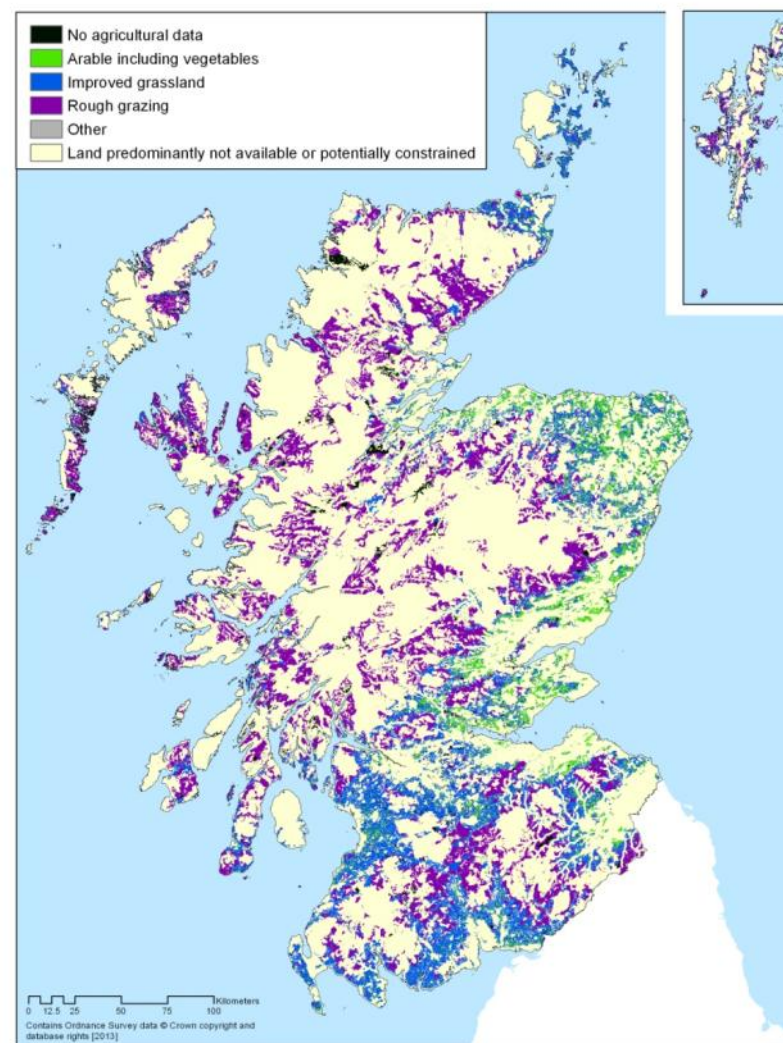
Ecological Site Classification
suitability model:

All land in Phase 3 is at least
marginally suitable for native
woodland establishment

85% suitable for softwood
production forests

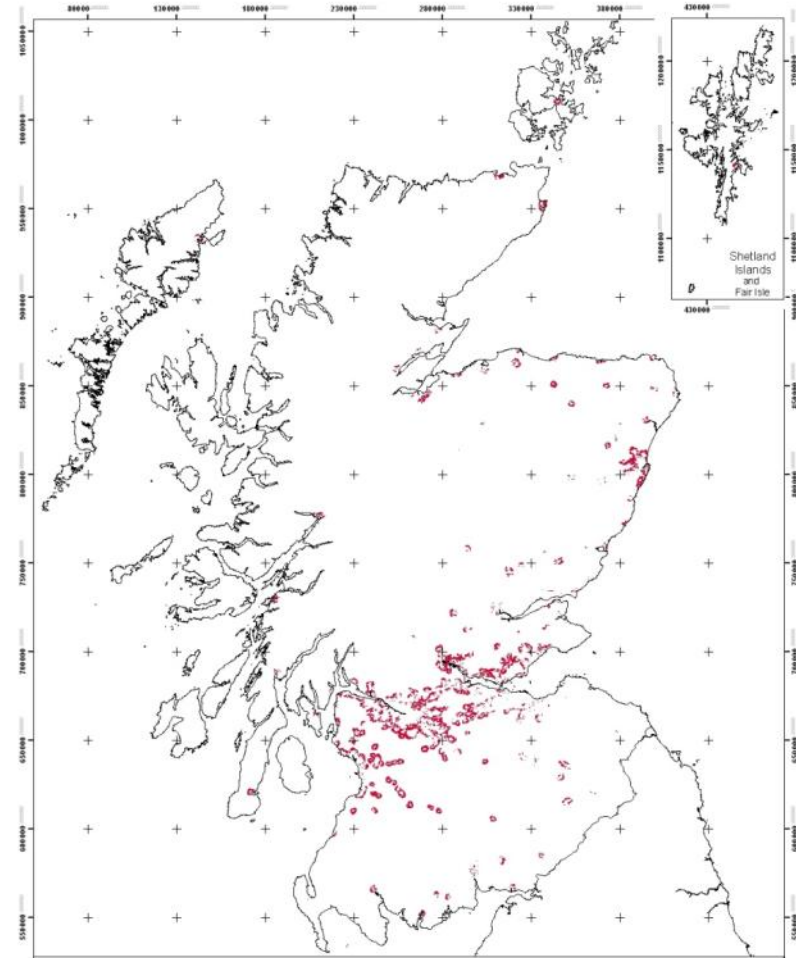


- Land Cover Map data
- Agricultural land use
- Mostly grassland (47%) and shrub heath (21%)
 - Grassland has an important role in livestock production
 - Constraints to planting on shrub heath due to biodiversity and carbon management policies
- 8% arable production
 - Small scale woodlands





- WIAT: woods within 1km of populations over 2,000
- 5% of Phase 3 land within 1km
- Mostly in central belt



- Evidence provided was a starting point in the WEAG process
- Information about the land uses which could be affected by planting
- Helped to establish a common understanding of the broad opportunities and constraints to woodland expansion
- May help to target woodland creation incentives
- Opportunity to incorporate climate change impacts on suitability for woodland expansion