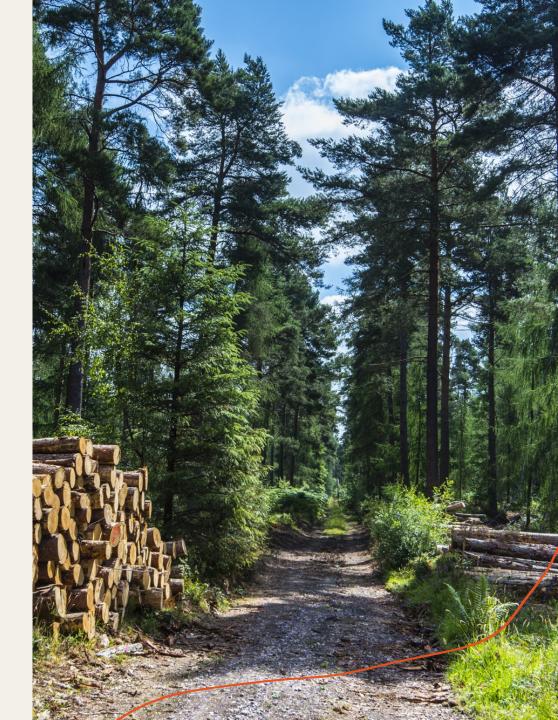
Regenerative Forestry

+ Is Scotland ready?

- + Willie McGhee
- + Forest Policy Group
- + <u>Forest Policy Group for sustainable forestry in</u> <u>Scotland</u>



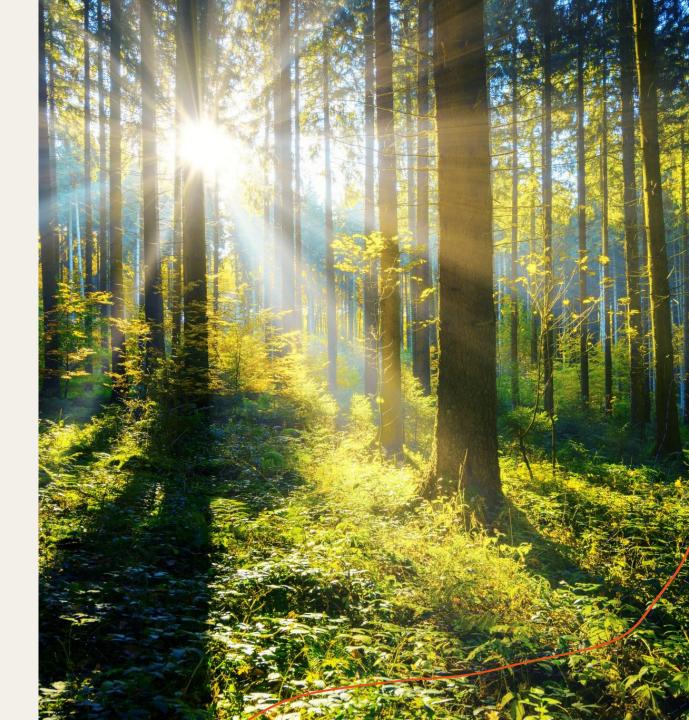
What is regenerative forestry

Principles

Regenerative forestry is a whole system approach, delivering benefits for climate, nature and people, both within the forest and from forest ecosystem services outside the forest.

Regenerative forestry is an integrated approach to deliver the ambitions for more trees, by ensuring new forests are diverse and resilient, and integrated into our wider farmed landscape through mainstream adoption in farming systems.

- Regenerative forestry is resilient and adaptive and takes care of the forest itself, so that benefits for climate, nature and people can be provided for the long-term.
- Regenerative forestry is a set of improved forest management practices that deliver optimal outcomes across the whole forest and avoids spatial intensification in some zones. The whole forest must deliver for climate, nature and people, whether actively managed or non-intervention, planted or regenerated.
- Regenerative forestry supports high levels of engagement by people and delivers strong livelihoods. Regenerative forestry is rewarded for the market products and wider ecosystem services it delivers for climate, nature and people.



How to identify regenerative forestry practices?

Is this stand or forest in a better condition than before?



Is it locking up carbon in soils, trees and timber?



ls it home to more nature?



Is it supporting local people and livelihoods?



Is it contributing to a diverse and ecologically functional landscape?



Is it more resilient?



Can it continue to do all this for the foreseeable future?



UK context

Forestry, farming and conservation are viewed by policy makers and within each sector as conflicting land uses and are rarely integrated.

Much of our forest is in poor ecological condition.

Forests and forestry practice face challenges from changing climate, biodiversity loss, and public understanding and acceptance.

The UK has a significant forest product footprint; much of this is overseas and we are the 2nd biggest importer of forest products, due to our consumption and limited homegrown supply.

There are significant ambitions for increased forest area.

Forestry standards and voluntary forest certification have improved environmental and social standards but cannot be relied on to establish a longterm vision for the UK's forests. Forestry practice has improved dramatically over the last 30 years. Until the late 1980s it was thought acceptable to plough deep peat, plant over valuable habitats, eradicate native species regeneration from commercial plantations and establish monocultural blocks on the landscape.

These practices are now discouraged, or even prevented, and modern forestry incorporates some restorative measures. However, there needs to be a further shift in understanding of what sustainable forestry looks like if it is to meet the challenges of climate, biodiversity and public benefit. This must lead to a step change in forestry practice.

The Scottish Context

- + No vision of what Scotland's forests should do and look like.
- + Scottish forestry is target driven.
- + Intended to contribute to ScotGov Net Zero target for carbon emissions by 2045.
- + The Scottish Government aim to increase forest cover from 18.7% to 21% by 2032. Annual targets are currently 12,000/ha/yr, rising to18,000ha/yr by 2024/25.
- + Majority of Scotland's forests are managed on a rotational clear fell system. Dominated by one species, Sitka spruce.
- + Rotations getting shorter many at 30-35 years. No data on the area of forest clearfelled annually.
- + No Annual Allowable Cut no idea if we are over harvesting.
- + 20% of Scotland's forests are on peaty soils need careful management.
- + Little inventive to actively manage forests and investment forestry not interested higher costs lower rate of return. Shut gate forestry or Tree Farming?



Climate

Need to manage forests to minimise soil disturbance. Peaty and organo-mineral soils are rich in carbon and must be treated carefully.

Currently limited understanding of the rotational carbon cycle - planting, harvesting and restocking on peaty soils. Still using deep drains on new planting and restock sites.

Planting trees to sequester carbon requires careful consideration of soil type, existing biodiversity and land-use, tree species, the objectives and management of the woodland, harvesting (or not) of timber, the fate of the harvested wood products, and the timescale.

For forests to play a positive long-term role storing carbon, we need to establish resilient mixed species forests and retain carbon in trees and/or in their harvested wood products.

New native broadleaved woodland provides a carbon sink over the long term and has biodiversity benefits. High-yielding conifers sequester carbon faster and have limited biodiversity benefits.

Harvested Wood Products, if they have long-term uses (such as construction), may make a significant contribution to the carbon balance.



Biodiversity

- + The UK's forests, as well as wider landscapes, continue to lose biodiversity.
- + Managed conifer forests have developed their own suite of wildlife but suffer from lack of diversity. Conifers at 2m spacings, in unthinned plantations may have less biodiversity than previous land use.
- + Forest diversity, including biodiversity, supports resilience and adaptation.
- + Forest soil condition is important for biodiversity and is damaged by clearfelling and ground disturbance
- + Allowing some woodlands to achieve their biological potential through nonintervention will benefit biodiversity
- + Maintaining forest conditions, by retaining canopy cover and increasing the instand diversity of structure, species and tree ages, better supports the development of ecological processes.
- + Mixed stands can be as productive as monocultures. They also provide more ecosystem services and are potentially more resistant to pests and diseases



People

- Forestry sector, by and large, believes that public antipathy towards industrial monoculture is due to lack of education and understanding.
- + UK forest industries employ many people, timber processing is mostly in or near urban centers. 20% of forestry jobs are in tourism. Forestry displaces agricultural jobs and can lead to community decline.
- + Forest ownership in Scotland has become more concentrated in the last ten years more land owned by large corporates. However, there may be many more small-scale owners woodlands.co.uk
- + There are significant skills and capacity gaps across the forestry sector.
- + Industrial forestry provides little local community benefit or wealth building, especially with remote absentee landlords and shut gate policies.
- + Forests are an order of magnitude more valuable when natural capital is accounted for, compared to a purely economic assessment.
- + Well managed forests can provide local employment, training and volunteering opportunities and be valuable assets for education, health and well being.
- + CCF is widely applicable, economically viable and could provide similar volumes of timber for the processing sector as CF/R.



What can be done?

+ Policy

- + Develop a joined-up policy framework for land use, for farming and forestry to be managed in an integrated way, rather than as rival land uses.
- + Follow Irelands example of moving towards more Continuous Cover Forests - Pro Silva Ireland welcomes CCF measures in New Forestry Programme - Pro Silva Ireland
- + Use public funding and regulation to reward the benefits to climate, nature and people from integrated land use and the adoption of regenerative forest management practices.
- + Align research and technical development priorities to support forest owners to transition to regenerative forest management practices.
- + Instruct government forest managers to apply regenerative forestry across the public estate (not just exemplar sites).



How should the forest sector respond?

- Adopt regenerative forest management practices across the entire forest (moving away from a zoning approach for management objectives) to deliver optimal climate, nature and social benefits.
- + Implement a step change in the species diversity and in-stand age structure of timber producing forests, with a presumption for the maintenance of forest conditions by reducing reliance on clearfelling and the mainstream adoption of lower impact silviculture systems, such as continuous cover.
- + Work with, and develop new ways to support, farmers in the integrated management of woodlands and trees within farming systems and the wider landscape.



Is Scotland Ready?

- In the words of Kenny Dalglish...Maybes aye, maybes naw.
- Timber processors, large management companies and investment forestry 'drive' the sector.
- + Public pressure and lobbying from civil society can make a difference.
- + Scotland has good examples of good forestry but not enough.
- + Look to Ireland for how to move gently towards different silvicultural systems <u>Continuous Cover Forestry</u> -<u>Teagasc | Agriculture and Food Development Authority</u>
- + There is an appetite amongst foresters to do things differently...but they need led/guided (by money or regulation).



"I'm alarmed by Jason's headlong rush into albedo management."

Thank you

<u>Better Forestry - Is Scotland</u> <u>Ready? FPG Conference 13th</u> <u>March 2024, Birnam Tickets,</u> <u>Birnam | Eventbrite</u>

