

UK Rural - April 2021

Q
SPOTLIGHT
Savills Research

The Forestry Market

savills



Forestry investment • UK regional markets • Carbon offsetting • Woodland creation

50%

rise in hectares traded in the 2020 forest year

£205.5m

UK forestry investment in the 2020 forest year

20,372

Gross area of hectares traded in the 2020 forest year

Breaking convention

Forestry now sits at the apex of both climate and land use policy and continues to attract new interest

This *Spotlight* on Forestry tracks UK forest investments during the 2020 forest year (1 October 2019 – 30 September 2020) and shows that interest in the UK forestry investment market continues to follow its long-term upward movement. Last year's *Spotlight* reported evidence of new buyers entering the UK forestry market and this trend has intensified as climate concerns continue to dominate investment landscapes. The traditional market drivers of capital asset appreciation and rising timber prices have not changed, but evolving policy and action around the sustainability agenda has shone a light on forestry as not only a financial investment, but also an environmental one. This has diversified the investment pool, but also focused demand for lesser quality assets for re-purposing, and in the more remote areas.

During the 2020 forest year the value of the UK forestry investment market hit a record of over £205 million. The main difficulty is predicting where true forestry values lie against the market's return aspirations. It is

not uncommon for forests to sell in excess of 30-70% over the asking price, which ultimately represents the scarcity value of tradeable forest assets. Asset supply constraints are being matched with an aggressive appetite for managed carbon and timber resources, with owners wanting to report on sustainability metrics of forestry performance in climate and biodiversity regulation, especially when considering afforestation projects. The one note of warning is that competition is driving demand in excess of market realities.

The trend towards off-market sales seen during the 2020 forest year suggests that the privacy of buyers and sellers and managing speculative interest remain concerns.

ACTIVE ASSET MANAGEMENT

As a result of the increasing competition for property, there is clear interest in properties that were traditionally less popular mainly due to location and the expectation of poorer commercial returns. While never destined to produce the same output as prime property, as

existing forests, these sites have few of the constraints levied on new planting sites, and therefore offer good opportunities to investors willing to improve assets over a longer timeframe. This is demonstrated by increasing prices for secondary or even tertiary forest property, with the expectation that through focusing on the better soils within a property, drainage, species change and improved growth performance the second rotation over a potentially smaller net area is likely to significantly outperform the first rotation.

For years forest management was about restricting expenditure in a no income environment, but management is now rewarded by strong timber prices and capital values, so additional money spent on scrub clearance, respacing, infill planting, enhanced drainage, etc is not wasted. Improvements in management don't just benefit future timber revenues though. Microsoft, for example, in its recent carbon markets report included carbon storage from enhanced forest management projects as part of its ambitious net positive strategy.

FORESTRY INVESTMENT ANALYSIS

The total value of the UK forestry investment market increased from £119 million in 2019, to just over £205.5 million. During 2020, 20,372 hectares were transacted representing a 73% increase in the value of forestry sold and, according to our research, exceeds the record in 2015 by just short of £60 million, when forest sales were bolstered by a large portfolio sale (figure 1).

This report focuses on data from all mainstream forestry transactions and, where we are aware, off-market or private transactions. While we make every effort to record all forest sales, through our market knowledge and networks, it is becoming increasingly clear that the market is becoming harder to determine as some sales are not easily identified or verified through available records.

In recent years, off-market sales

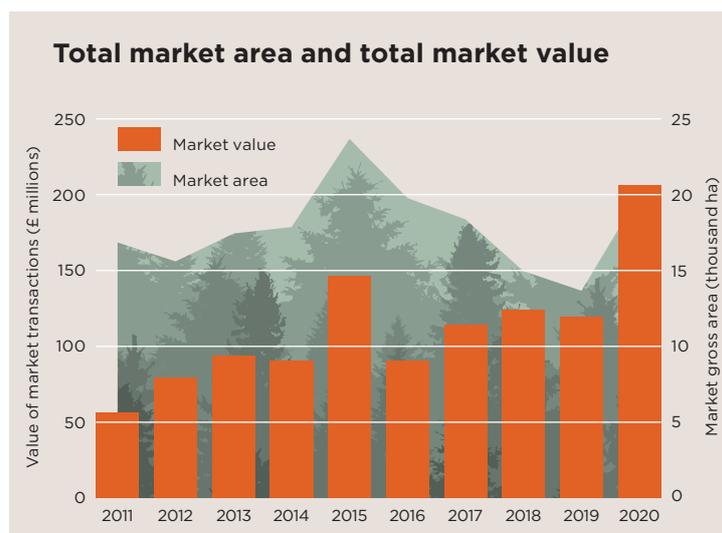


figure 1

Source Savills Research

have become more widespread with our analysis showing private sales represented 32% of all sales during 2020, compared to 11% in 2019 and 7% in 2017. As a result, although our database reports total sales of just over £205.5 million, anecdotal evidence

suggests the value of sales may be as high as £225 million for 2020. The remarkable increase in the overall value of sales can be partly attributed to a rise in the total area of forestry transacted across the UK. In recent years, our analysis found a relatively even number of

forest hectares sold, however, during 2020, 20,732 hectares were transacted, representing a rise of 50% compared to the 2019 (figure 1). Although the number of hectares sold increased during 2020, the demand for forestry still considerably exceeds supply.

AVERAGE FOREST VALUES

Analysis of our 2020 database shows the average gross forest value increased by 17% to just over £11,600 per hectare. All forests have unproductive areas such as tracks, rivers, lochs, etc, so it is important to consider the value of the productive area. The average price per net productive hectare rose by 11% to £15,000. This reflects all sales over 20 hectares and covers a wide variation in the type, location and size of forest sold. However, closer analysis of the larger commercial forest sales (>150ha) highlights the strength of the upper end of the investment market, with average gross values at £13,100 per hectare and the average net productive hectare rising to £18,250.

“ Although the number of hectares sold increased during the 2020 forest year, the demand for forestry still considerably exceeds supply ”

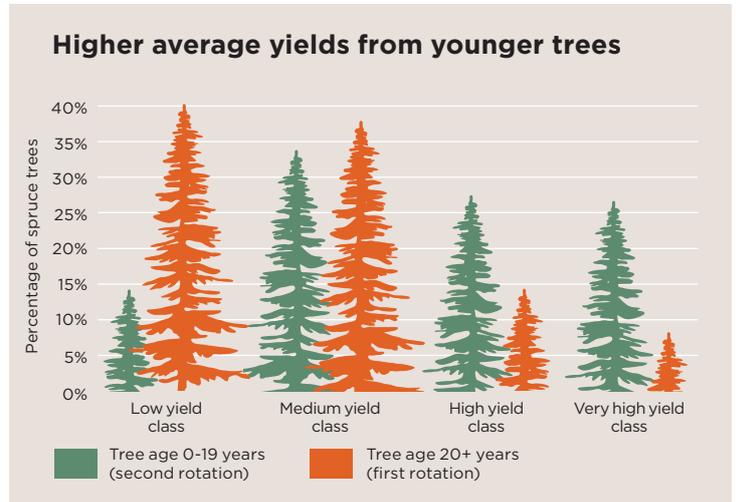


figure 2

Source Savills Research

Regional performance

Higher demand for forestry is driving interest in previously unconsidered locations

Average forest values are diverse and factors such as location, accessibility, tree species, average age and timber volume continue to influence the price. However, as demand for forestry intensifies we are seeing growing interest in areas that were considered less attractive in the past, resulting in average forest value growth being strongest across North and Central Scotland.

The growing interest in previously less attractive forest properties is also driven by a realisation that through improvements in management techniques, tree stocks, genetics, and precision breeding, the performance of forests can be boosted. Improved techniques for tree establishment provide the basis for better performing and faster growing forests. Foresters are also witnessing longer growing seasons due to milder UK autumns.

Monitoring yield helps forest managers understand performance patterns in terms of growth and productivity, which should link

closely to asset value. Analysis of a forestry portfolio comprising first and second rotation spruce crops indicated that younger timber, less than 20 years old and therefore nearly all early second rotation, recorded a higher average yield class of 17, compared to a medium yield class of 13 for timber over 20 years old, which was nearly all first rotation. Furthermore, our research indicated that 53% of the younger timber was rated high to very high yield class, compared to 22% of timber over 20 years (figure 2). This is in part why we are seeing very strong values paid for younger age profile woodlands, with valuations capturing this heightened performance as well as other benefits, such as the smoothed income profile associated with multi-age forests.

NORTH SCOTLAND

In North Scotland the average price of £8,513 per net productive hectare continues to be lower than more southerly regions that

benefit from better growing conditions and access to timber markets. However, during the 2020 harvest year, North Scotland achieved a price of over £16,500 per net productive hectare, which is a regional high. North Scotland also reported the second largest market share across Scotland, England and Wales at 28% with 5,678 hectares transacted.

CENTRAL SCOTLAND

The area enjoyed a significant 24% rise in the average net productive value to £16,555 per hectare. Average prices here have been gradually rising and for a second consecutive year recorded the highest number of forest hectares sold across Scotland, England and Wales.

SOUTH SCOTLAND

During the 2020 forest year, the average value of net productive forest rose by 3% to £15,100 per hectare. This follows a 33% rise in the 2019 forest year and the 2020 data reflects the range of prices and properties sold across the region. The number of hectares transacted reduced by almost 500 hectares when compared to the 2019 forest year.

ENGLAND AND WALES

England and Wales continue to benefit from the highest prices paid per hectare of net productive forest. This year's analysis shows a 4% rise in the average value to £17,131. The number of hectares sold in England and Wales increased by over 2,000 hectares during the 2020 forest year compared to the 2019 year.

Regional market share and values



Region	Average £ per productive hectare	Number of hectares sold	Market share %
North Scotland	£8,513	5678	28%
Central Scotland	£16,555	7210	35%
South Scotland	£15,100	4000	20%
England & Wales	£17,131	3484	17%

figure 3

Source Savills Research

“Interest in the UK woodland carbon market has grown rapidly over recent years, presenting a new potential income stream for landowners”



Carbon as a disruptor

Companies concerned about their climate impact are increasingly looking at woodland carbon offsetting

The reality of the climate crisis has sparked a race to net zero emissions across all sectors within the UK. Companies and organisations seeking to reach zero carbon impact start by reducing their procedural emissions and then look to offsetting for any residual emissions. Tree planting offers a nature-based solution to carbon offsetting. As trees grow, they sequester carbon through photosynthesis. This sequestration can be quantified and reported as an internal offset or “inset” for land managers, or it can be externally verified and sold to the voluntary carbon market as an offset.

Interest in the UK woodland carbon market has grown rapidly over recent years, presenting a new potential income stream for landowners and generating demand for bare planting land.

DEMAND FOR WOODLAND CARBON

There are a number of factors behind the increasing demand for woodland carbon offsets. The legally binding net zero emissions target of 2050 for England and 2045 for Scotland has put pressure on policymakers and business to take their carbon impact seriously. This ambition is brought to reality through Climate Related Financial Disclosure, which is increasingly becoming mandatory for all large companies and financial institutions in the UK, requiring them to be transparent about their climate

risk. The growing demand for accountability, combined with increasing regulatory baselines and the threat of carbon taxes, means that companies are starting to address their carbon emissions. This has resulted in a surge of interest in woodland carbon offsetting.

CREATING A CARBON OFFSET

In order to sell woodland carbon offsets, there are a number of key criteria that need to be satisfied. Firstly, the woodland creation needs to be verified as a legitimate carbon sequestering project. Within the UK, the Woodland Carbon Code is the most commonly used scheme to do this. Secondly, it is essential that the woodland can prove additionality. This means that the carbon would not have been sequestered in the absence of a market for offset credits.

In other words, carbon income needs to be a key driver for planting the trees – the project cannot be financially viable without carbon income. This means deriving carbon income from commercial forestry can be difficult to justify. The trees have to be planted on new land, and the land manager cannot be under an obligation to plant – meaning land managers cannot sell the carbon from trees grown through restocking (for example, under the conditions of a felling licence). Trees sequester carbon at different rates depending on age and species, therefore woodland carbon credits can take time to generate.

IMPACT OF CARBON INCOME ON WOODLAND CREATION MODELS

Model assumptions = 50ha over 80 years

Amenity: England broadleaf

- 100% mixed broadleaf
- Woodland creation and maintenance grant income
- Carbon price = £25/tonne
- Timber income from selling firewood = £2,000/year for 40 years

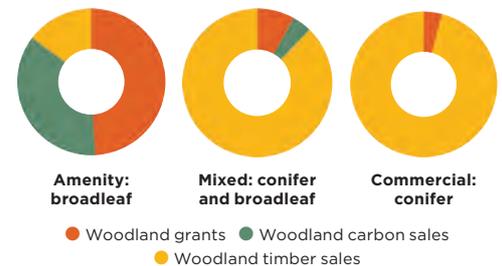
Scotland: mixed

- 50% broadleaf, 50% conifer
- 2 x conifer rotations
- Woodland creation and maintenance grant income
- Carbon price (from the broadleaf) = £25/tonne
- Timber yield (from conifer) = £500 tonne/ha for fell, 40 tonne/ha for thin
- Timber price (from conifer) = £80/tonne for fell, £30/tonne for thin
- Timber income from selling firewood = £1,000/year for 40 years

Commercial: Scotland conifer

- 100% conifer
- 2 x conifer rotations
- Woodland creation and maintenance grant income
- No carbon income
- Timber yield (from conifer) = £500 tonne/ha for fell, 40 tonne/ha for thin
- Timber price (from conifer) = £80/tonne for fell, £30/tonne for thin

Estimated income breakdown over 80 years:



£	Conifer	Mixed	Broadleaf
Total income	£3,882,210	£2,328,560	£673,535
Total costs	£375,100	£457,912	£493,802
Net income	£3,507,110	£1,870,648	£179,733

(all numbers are based upon theoretical models and assumptions)

figure 4

Source Savills Research

£20.37/t

The average price of carbon from three rounds of England's Woodland Carbon Guarantee over 2020-21 is £20.37/tonne

15x

The amount of times the voluntary carbon market needs to scale by 2030 in order to reach net zero in time

Investment potentials

We look at carbon sequestration versus returns from commercially driven forestry

The growing interest in woodland carbon for offsetting and ESG objectives makes forestry an increasingly attractive investment. Savills Rural Research modelled the impact of carbon income on a variety of woodland creation models to understand the extent to which carbon is changing forestry market dynamics. Our models (figure 4) demonstrate that growing trees for commercial carbon (offsetting) and growing trees for commercial timber are very different projects in terms of income potential, timescales around return on investment and scheme design. The need to prove additionality means that commercial carbon and commercial forestry schemes are increasingly incompatible, as deriving carbon income from financially viable timber production makes additionality hard to justify. All growing trees sequester carbon, however not all woodland creation models can sell carbon offsets. Carbon sequestered can be used as an internal “inset” on a carbon balance sheet. Figures 5 and 6 show that although carbon income is an incentive to planting and will ease cash flow for certain schemes, at current carbon prices, returns from

timber remain far more substantial. High timber prices and high yields have resulted in exponential value growth for commercially driven forestry. It is important to assess the relative price of the assets at maturity, rather than focusing solely on chasing the earlier income streams from carbon, which may lead to investment in a lower yielding model. While forestry is not solely about carbon, the emergence of carbon sequestration as a key incentive for planting is undeniable. As a disruptor carbon boosts a strengthening forestry market, increasing demand for bare land with planting potential, and making forestry an attractive asset for its “soft” inseting power. For certain planting schemes such as lower yielding broadleaf amenity woodland, carbon income is becoming a key driver. However, history reminds us that focusing on single issue drivers has led to regrettable mistakes in woodland design, such as monoculture plantations when the sole aim was mitigating income tax. It is crucial that investors and land managers understand all their drivers for planting and adopt a long-term, balanced approach.

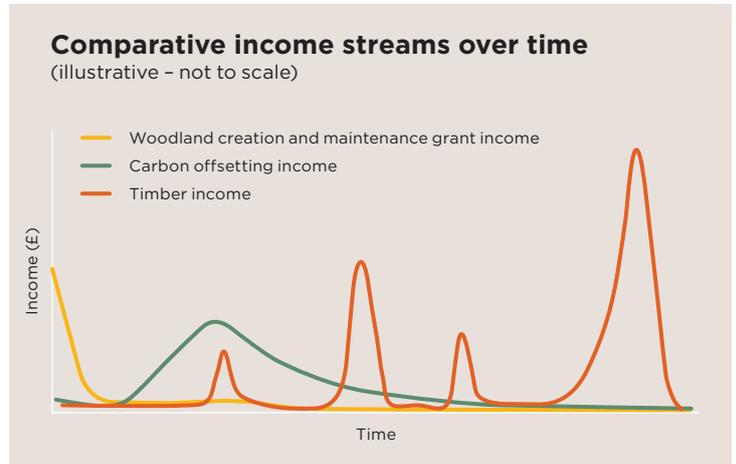


figure 5

Source Savills Research

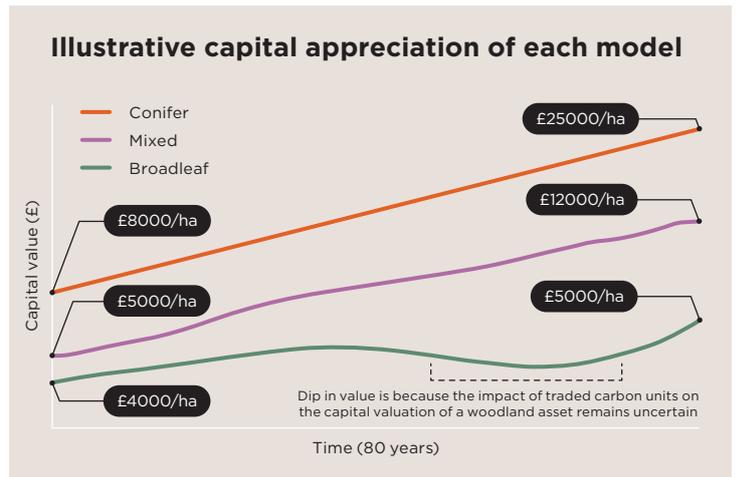


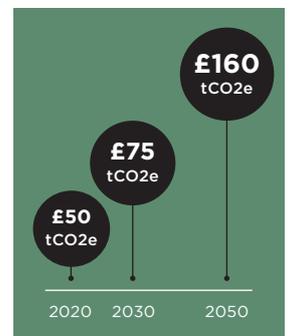
figure 6

Source Savills Research



CARBON VALUES

Income from carbon offsets is not linear, as sequestration rates vary depending on age and species of the tree. Carbon prices within the voluntary offsetting market vary greatly, from £3/tCO₂e to £30/tCO₂e. The average price of the mandatory EU Emissions Trading Scheme for April 2020–2021 was £24.41/tCO₂e. Research has suggested that carbon should be priced between £40–£100/tCO₂e in order to accurately represent the cost of reaching net zero by 2050 (2045 for Scotland). For many companies looking to purchase offsets, the UK provides high quality, verifiable “charismatic carbon”. Companies value the additional benefits UK tree planting can provide such as public access, biodiversity uplift and species protection. If carbon prices rise in line with research predictions, and regulatory baselines continue to increase, carbon will endure and grow as a dominant force for change within the forestry market, blurring the lines between land use change and viable investment. However, even with rapid carbon price growth, the high returns from timber are likely to remain the most substantial income driver for forestry investment.



Source LSE, Grantham Institute

A report from LSE and Grantham Institute suggested that shadow carbon prices consistent with net zero would start at £50/tCO₂e in 2020, reaching £75/tCO₂e in 2030 and £160/tCO₂e in 2050.

100

students graduate from higher education forestry courses each year

900k ha

of woodland to be created by 2050 to meet UK net zero recommendations

Future of forestry

With policy drivers and private market demand promoting woodland creation, we discuss what it will take to significantly increase the nation’s tree planting

The UK government has committed to ambitious tree planting, promising to reach an annual target of 30,000 hectares of new woodland creation by the end of its term, bringing goals in line with the Committee on Climate Change (CCC) net zero recommendations. The most recent ratified UK figures suggest 13,500 hectares were planted in the 12 months to March 2020, with an estimated similar, albeit slightly higher figure to March 2021. This puts current planting rates at 45% of what is required. But, exactly what is needed if we are to have any hope of achieving these goals?

LAND AVAILABILITY

At the highest level, land availability is the most significant factor for new woodland creation. Not only does land need to be available, but it also needs to be suitable for woodland development.

Excluding valuable agricultural land and land under protected designations, the Forestry Commission has identified approximately 3.2 million hectares in England as favourable for tree planting. A similar project commissioned by the Scottish government estimated there were 2.7 million hectares of land with the “most likely potential for woodland expansion” across Scotland. Together this represents an extra 24% of the total land mass in Scotland and England that is suitable for expanding woodlands. Converting this land from its current primary

use (normally farmland) is the core challenge. Land managers need to be committed to long-term change, which means that most tenanted land is likely to be excluded. A number of grant schemes exist to incentivise woodland creation, and the rising value of forestry should be a motivator in its own right.

Land use change to forestry is a complex process and can require environmental impact assessments in extreme cases. The process is also time-consuming and this has to be factored into appraisals. As a result, the process of developing a scheme can take six months to two years depending on scale, and often the net plantable area is only 40% to 60% of the overall area after deductions for safeguarding.

LABOUR/SKILLS REQUIREMENTS

Rapid upscaling is needed if the UK is to meet its tree planting targets. A crucial part of that upscaling revolves around the labour and skills needed to advise, plant and manage new woodland creation. A Scottish study (2019) suggested that in order to meet Scotland’s share of the 30,000 hectare commitment, it needed an uplift of 29% of the workforce over 10 years. Estimates based on the Scottish research and the planting targets indicate the shortfall could be as many as 12,500 people in England and Wales.

The Institute of Chartered Foresters believes there is an urgent need for more skilled staff in the forestry workforce even

before ambitious tree planting targets are taken into account. The Institute explained that “the necessary scale of change must be reflected in professional delivery capacity at all levels and in all settings. It will also be crucial to maintain standards to avoid damage to the environment and reputational risk to the sector.”

There are calls to make forestry and environmental studies more mainstream at school level, and build on degree apprenticeships as an opportunity to increase capacity in the sector and promote diversity in the workforce. The need for upscaling and upskilling is also a great opportunity to forge links with the wider land use community and draw in career changers from other sectors, especially post-Covid-19.

Approximately 100 students graduate from higher education forestry courses each year across the UK. Work is being done by devolved governments to develop plans to attract talent to the sector, improve skills and technical knowledge, support education providers and employers.

Funding from schemes such as the Green Recovery Challenge Fund and Scotland’s Kickstart programme may help enable increased employment in the sector. However, there are no guarantees. Sustained political will and government commitments will be essential in delivering scale, if the UK is realistically going to achieve its net zero, biodiversity and planting targets.

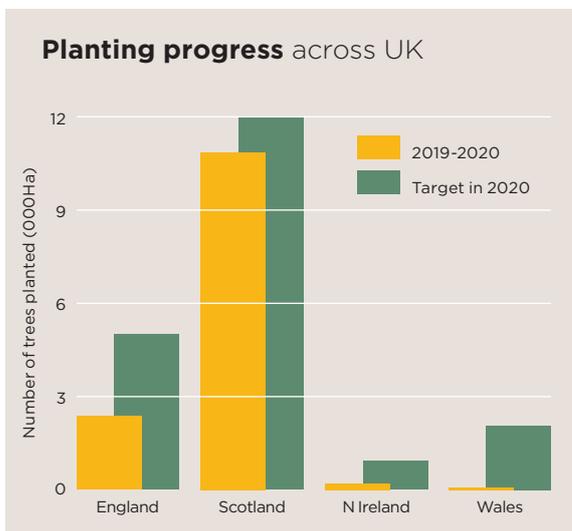


figure 7 Source Forestry Commission

24%

Excluding valuable agricultural land and land under protected designations, the Forestry Commission has identified an extra 24% of the total land mass in Scotland and England suitable for expanding woodlands



figure 8 Source Savills Research

“The industry requires substantial investment if tree planting is to be delivered rapidly and at significant scale – trees don’t grow overnight”

NURSERY CAPACITY

With increasing planting and re-stocking demand comes even greater demand for tree seedlings. Tree nurseries have endured sustained demand increases over the last few years. The nursery sector has struggled to anticipate demand for seedlings in what is essentially a time-critical operation. Scaling up planting stock needs careful planning given the long term nature of these ventures to avoid under or over supply.

Nurseries also need to be ready to adapt to the impact of a changing climate on seedling requirements, as there is likely to be a rising demand for seeds able to withstand increasing disease and climatic pressure and achieve desired productivity. Even the collection of seed for nursery stock is challenging, as not all

years are good mast (seed production) years.

The Forestry Commission recently announced a potential Nursery Notification Scheme, intended to inform UK seed suppliers and tree growers of forthcoming woodland creation and restocking projects, in the hope that it will enable them to prepare tree stock accordingly and ensure supply across the sector.

The forestry sector has not seen such a rapid demand for upscaling for many years, possibly ever. The turn around needed to reach net zero emissions by 2050 is at odds with a sector that has always worked on long timescales. The industry requires substantial investment if tree planting is to be delivered rapidly and at significant scale – trees don’t grow overnight.

TIMBER MARKET

A year on from the start of the Covid-19 pandemic and we can start to uncover the ways in which the virus has had an impact on the end users of the timber market. During the pandemic, many home owners, bored of staring at the same four walls and with time on their hands, have taken to renovating, with sales of home improvement and gardening products growing by almost 50% compared to the previous year (Statista 2020). Much of these purchases will be timber-based building materials. However, despite the increase in DIY, housebuilding was halted for the first lockdown of 2020, disrupting demand for timber materials on a larger scale.

Finally, Covid-19 has resulted in a rapid increase in online retail – in June 2020 online retail accounted for a record 33% of all retail sales and 91 local authorities have seen parcel deliveries rise by more than 100% over the past year (Savills Research). This is likely to have resulted in an increased demand for both cardboard and timber pallets, critical to a booming delivery logistics sector.

Ultimately, promoting a high quality, high demand timber market is a key part of the solution to increasing tree planting across the UK and in doing so thereby sequestering more carbon.

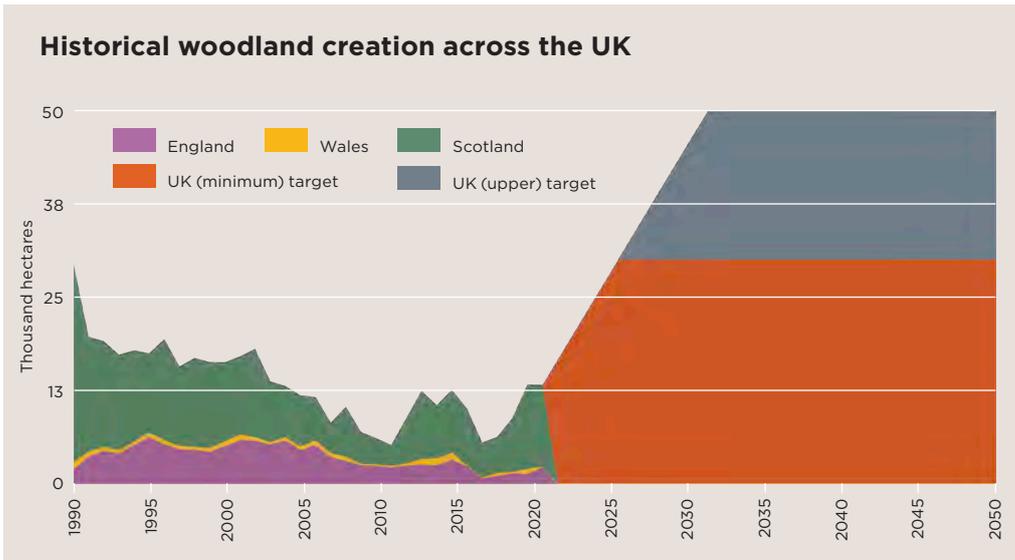


figure 9

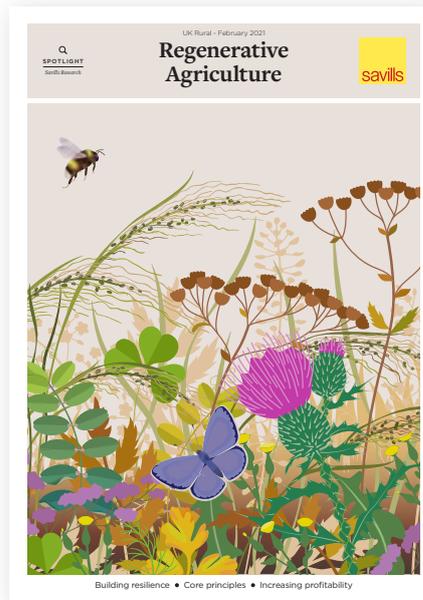
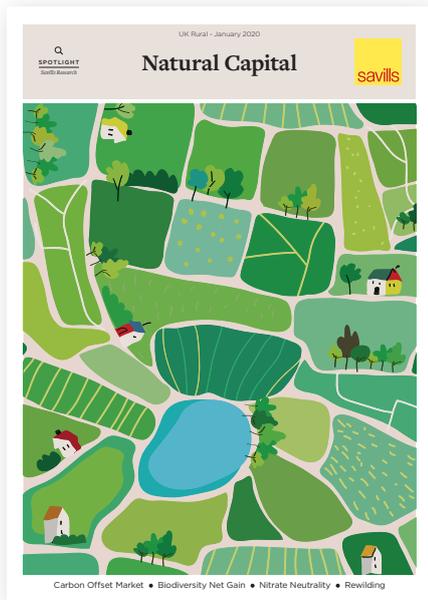
Source Forestry Commission, Carbon brief

THE SOCIAL POWER OF FORESTRY

Forestry is a multi-functional asset, with multiple ecosystem services flowing from it, whether it be timber, carbon, flood prevention or public access. Woodlands are increasingly being understood and utilised for their holistic value. Forest bathing is a practice garnering interest. It originates from Japan and focuses on immersing oneself in woodland as a way to relax, cure anxiety and improve mental health.

There is more and more science emerging into the effects of leaf shape, the colour green and the sounds and smells of a forest and the positive impact that this has on mental and physical health. Some land managers are leasing spaces within their woodland for forest bathing courses to take place, or reaping additional value by creating commercial forest therapy enterprises. As society increasingly demands the multiple benefits that flow from forestry, land managers have the chance to innovate with service lines and opportunities.





Savills Research

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Analysis methodology: Our research analyses our transactional database of forest sales. This database collates data from all mainstream forestry transactions over 20 hectares in area, and where we are aware, off-market or private sales. While every effort is taken to ensure all transactions are included within the information presented within this publication, it is very likely that further sales are reported after our publishing. Therefore, this Spotlight on the UK Forestry Market takes into account all new available information.

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