Reforestation Efforts in the

United Kingdom

History

The earliest official recordings of forest cover in the England come from the Domesday Book of 1086 [1]. Organised by King William the Conqueror, he set out to assess the value of his subjects' holdings in order to tax them. For environmental historians, a happy aside was that total forest lands were able to be estimated (~15%). Since then, as the population of the UK slowly grew and inevitable processes of urbanization, resource extraction and land conversion to agriculture took place, the overall forest cover of the country saw a steady decline down to a low of 4.7% cover in 1905 [1].

In 1919, after the devastation of WWI, the Forestry Commission was founded in order to replenish the forests and woodlands of the UK, where they played a crucial role in the war effort but were minimal for a nation looking to rebuild.

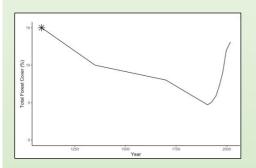


Fig. 1 - Total forest cover for the UK. The * represents a data point found in the Doomsday, but is only representative of England, but not the UK as a whole

Threats to the Forest

Numerous threats face current and future forests of the UK. Increased global trade has brought invasive species into woodlands and forests across the country, with Ash dieback (Hymenoscyphus fraxineus) projected to infect and kill 80% of the European ash (Fraxinus excelsior), a keystone woodland species, in the future [2]. This effectively removes ash as a viable tree for planting when implementing reforestation efforts.

Native and non-native deer populations in the UK are also a threat to reforestation. Deer typically live in wooded areas and will eat the shoots and leaves of young trees, hampering the regeneration efforts of existing forests and stalling the growth of reforested areas. Predators such as lynxes or wolves would have kept deer populations in check in the past but have been eradicated from the landscape for some time and as such, deer populations have boomed.

Infrastructure projects also pose a threat to UK woodlands. The Woodland Trust estimates that 108 ancient woodlands in the UK will be affected by the construction of HS2 (a large-scale railway system) [3]

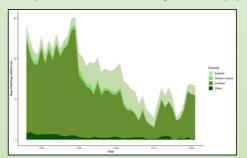


Fig. 2 - Cumulative total of reforested land in the UK from 1976 - 2021

Current state of reforestation

Over the past 40 years, reforestation efforts in the UK have been steadily improving, with Scotland planting over half of the reforested land in the UK (Fig. 2). However, in the past 10 years there has been a decrease across the UK in the amount of land that has been reforested. This is likely due to changes in incentives from the government changing and the availability of land for planting also changing. With that being said, there are also success stories in recent years that still shine through, one such story being the creation and expansion of The National Forest, located in the middle of the country (Fig. 3). The National Forest, located near the cities of Derby and Birmingham, has seen continual growth since it's inception in 1995 and is a source of hope for the future of reforestation in the





Fig. 3 - Forest cover in The National Forest in 1991 (left) and 2016 (right). Areas of dark green represent represent new areas of planting from 1991 – 2016.

The future of reforestation

With the continual upward trends in reforestation efforts in the UK, the future of is looking bright for UK forests. The government has pledged to spend over £500 million on planting 30,000 ha of new woodland per year from 2020 – 2025.

There are plans to supercharge planting efforts in the UK with the proposed "Northern Forest" which would span coast to coast from Hull to Liverpool [4]. Efforts would include planting upwards of 50 million trees on a landscape that has historically been scarred by industry and millennia of agriculture in the forms of crop and pastureland.

Coupled with this surge in planting efforts is a push for more rewilding of the UK's landscape, which looks beyond forests as a means of restoring natural landscapes whilst also tackling global climate challenges [5]



Fig. 4 – Proposed coast-to-coast Northern Forest