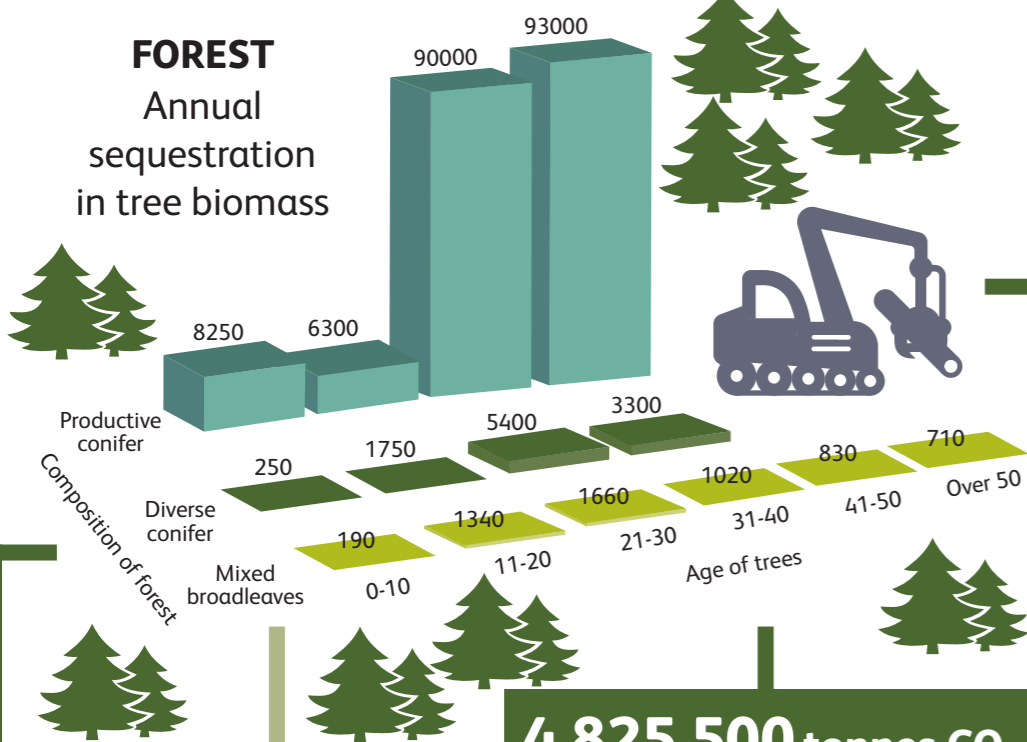


FOREST Annual sequestration in tree biomass



4,825,500 tonnes CO₂
Carbon stored in tree biomass

Broadleaves are not harvested but remain as standing timber and subsequently deadwood

Total carbon stored in forest soils, litter and deadwood: 27,736,000 tonnes CO₂. However, it is not clear that this changes over time.

SOIL, LITTER & DEADWOOD

0
Carbon in soil, litter and deadwood: no change

Leaf litter:
56 tonnes CO₂ per hectare

Soil:
peaty gley and peaty podzols:
1,329 tonnes CO₂ per hectare

Deadwood:
20m³ per hectare is left to enhance biodiversity, making 1,329 tonnes CO₂ per hectare.

Sawmilling, including kiln drying, has been measured at around 180kg CO₂ per m³.

FORESTRY OPERATIONS

-1,192,000 tonnes CO₂
Carbon emitted through forestry operations

Forest management, timber harvesting and transport has been measured at 18kg per cubic metre harvested.

Harvested conifers are processed into various materials, which are manufactured into a range of products.

EACH YEAR'S HARVEST

357ha productive conifer producing **450m³** timber per hectare
25ha diverse conifer producing **350m³** timber per hectare

Over 100 years of sustainable management, the carbon benefit from the 20,000ha Eskdalemuir forest is estimated at 14,612,880 tonnes – 7.3 per hectare per year.

ESKDALEMUIR carbon benefit from forestry and timber is

7.3

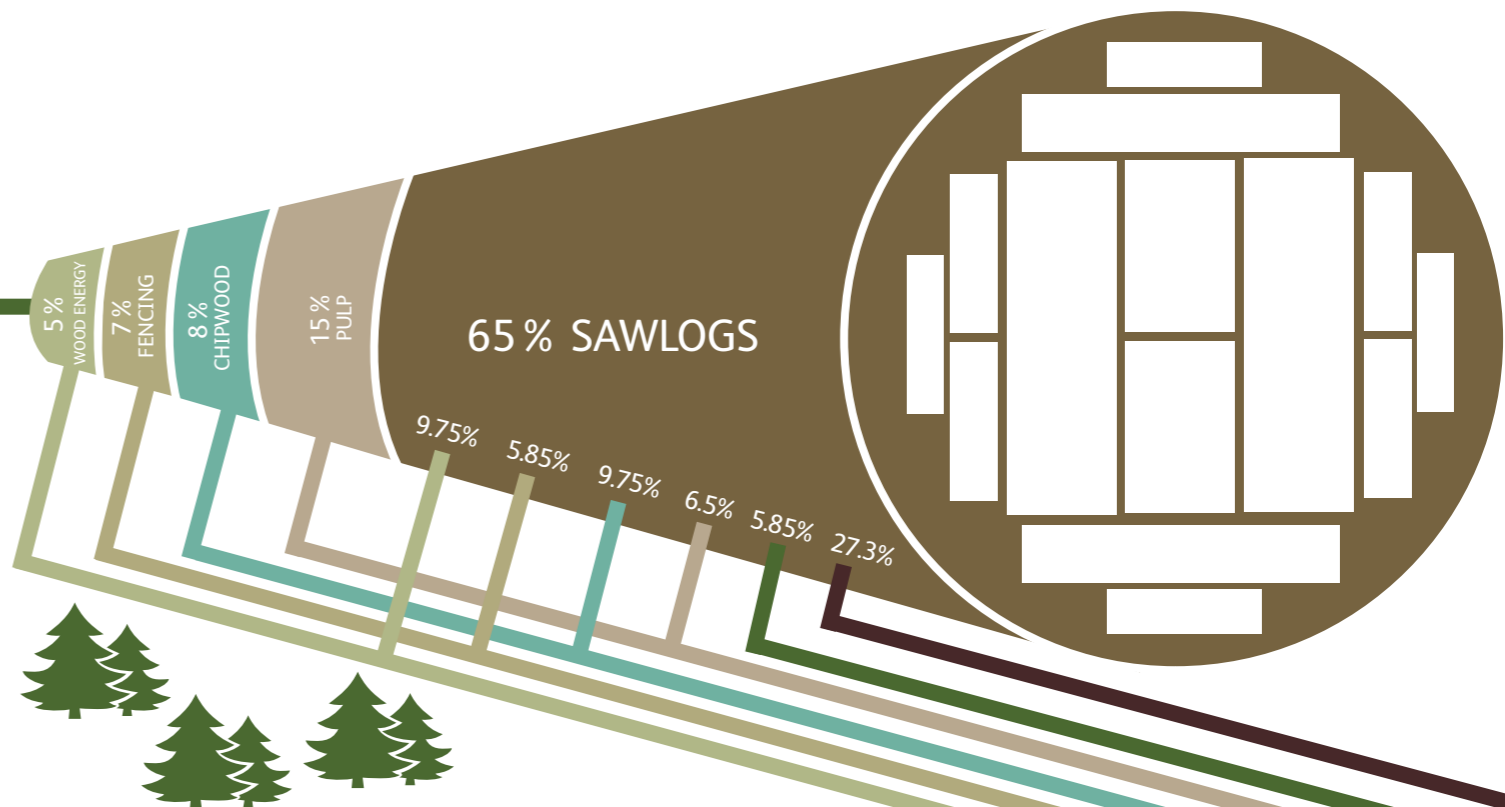
tonnes CO₂ per hectare per year.
This means each hectare provides benefit similar to the carbon emissions of one person in a year.

MATERIAL SUBSTITUTION

6,300,000 tonnes CO₂
Carbon saved through substitution of mineral materials

1m³ of UK conifer used in construction displaces 1.3 tonnes of CO₂ which construction with other materials would have emitted.

Only about 20% of UK houses are built from wood, so there is great potential for more material substitution.



WOODFUEL

1,296,000 tonnes CO₂
Carbon saved in substitution of fossil fuels

Conifer wood at 27% moisture content is estimated to produce 1.39MWh per m³

1m³ of wood used as fuel saves 495kg of CO₂

The products store the carbon and then decay over different lengths of time.

HARVESTED WOOD PRODUCTS

3,383,380 tonnes CO₂
Carbon stored as harvested wood products

WOOD ENERGY 1 YEAR

FENCING 30 YEARS

WOOD BASED PANELS 30 YEARS

PULP & PAPER 5 YEARS

SAWN PACKAGING 5 YEARS

SAWN CONSTRUCTION TIMBER 100 YEARS