

Forestry and bioenergy

Ian Tubby Forest Services



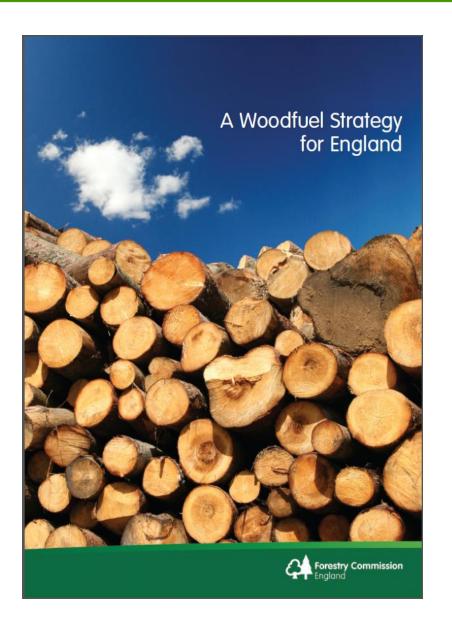
Forestry Health Check

- Hardwood deliveries up?
- Softwood deliveries up?
- Employment up?
- GVA steady?
- Timber prices up?



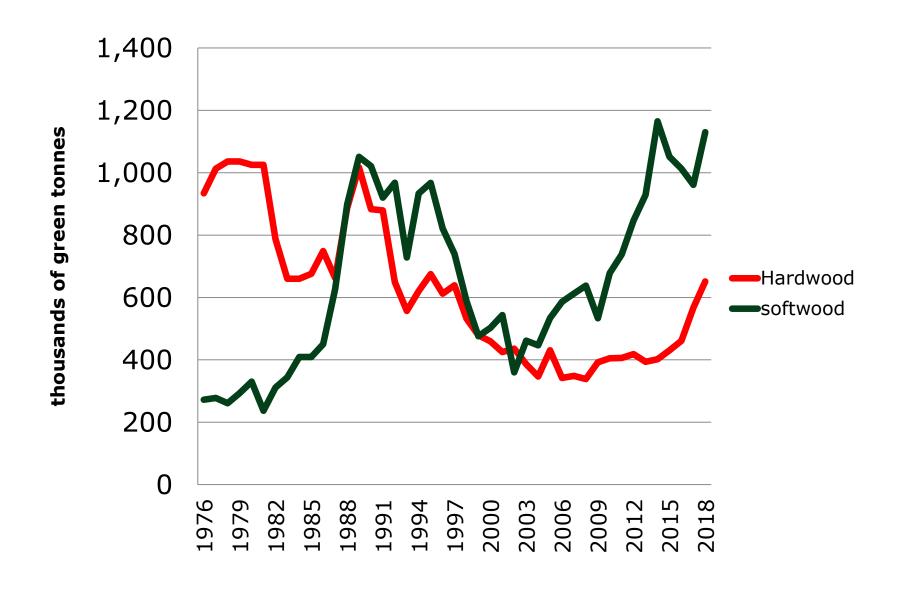






...bring an additional 2 million tonnes (Mt) to market, annually, by 2020...supported by other sources such as arboricultural arisings and recovered wood.

Timber deliveries in England





UK softwood deliveries (thousands of green tonnes)

Year	Sawmills	Woodbased panels	Woodfuel
2008	4,933	1,219	300
2009	5,133	1,135	650
2010	5,616	1,375	900
2011	5,859	1,417	900
2012	6,073	1,269	1,000
2013	6,407	1,263	1,250
2014	6,725	1,283	1,500
2015	6,168	1,334	1,600
2016	6,511	1,248	1,550
2017	6,581	1,059	1,600
2018	6,424	1,210	1,900

Forestry Commission \forecast available' v \observed production'





Forestry Commission Our challenge and opportunity

thousand cubic metres over bark standing				
Annual average in the period	England			
Total softwood				
2013 - 2016	4,577	1		
2017 - 2021	4,555			
2022 - 2026	4,113			
2027 - 2031	4,145			
2017 softwood production i	n England 2,499 m³			



Timber beyond MMAI

	Private sector		
Principal species	volume		
	(000 m³ obs)	SE%	
South East England	,		
All conifers	3,541	12	
Sitka spruce	41	<i>57</i>	
Scots pine	767	32	
Corsican pine	118	48	
Norway spruce	3	92	
Larches	1,231	16	
Douglas fir	653	25	
Lodgepole pine	0	-	
Other conifers	744	27	
All broadleaves	28,507	4	
Oak	10,194	8	
Beech	3,334	17	
Sycamore	1,195	18	
Ash	6,198	9	
Birch	1,903	9	
Sweet chestnut	934	28	
Hazel	932	14	
Hawthorn	24	42	
Alder	1,288	18	
Willow	78	46	
Other broadleaves	2,581	15	
All species	31,968	4	



Threats to carbon stocks





Tree diseases



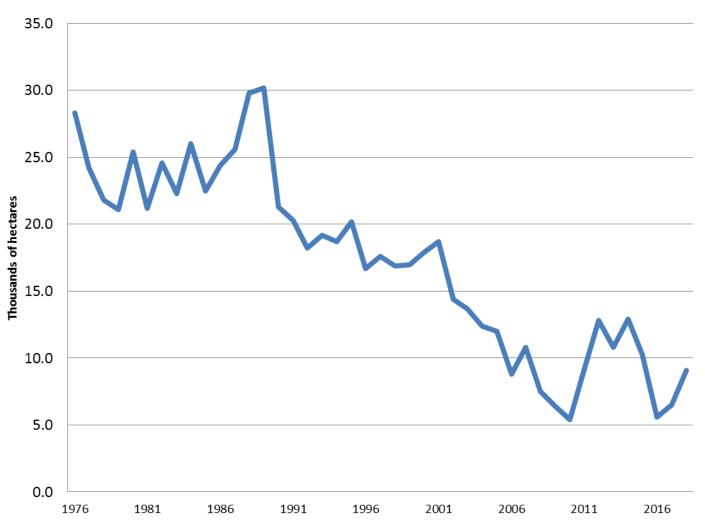


Productivity











Pre UKFS woodland creation...





UKFS compliance





- Breeding birds
- Historic environment
- Deep peat
- Social impact
- Water quality
- Landscape/visual impact
- Designated sites
- Roading
- Economic high proportion of broadleaf and open space



ELM Goals	Outcomes that might be bought by government
Clear Air	Reduced concentrations of particulates
Clean and plentiful water	Reduced concentrations of sediment Reduced concentrations of N+P Reduced concentrations of harmful chemicals
Thriving plants and wildlife	Enhanced status of native species Enhance quality, size and connectivity of habitats
Protection from and mitigation of environmental hazards	Enhanced resilience to flooding Enhanced resilience to wildfire Enhanced resilience to drought
Mitigation and adaptation to climate change	Increased sequestration of carbon Enhanced resilience of environment to climate change
Beauty heritage & engagement with the environment	Preserved and enhanced landscape character Preserved cultural heritage assets Enhanced access to the natural environment



Perennial energy crops to forestry

Cash flow Investment





Eucalyptus 5 years old



- Match silviculture to market does everyone need to grow sawlogs?
- Improved cash flow and return on investment
- Regulations ready? How about permanence?