



**Cyfoeth
Naturiol**
Cymru
**Natural
Resources**
Wales



Climate Change and Forest Harvesting

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Timber Sales and Marketing Manager, NRW

Welsh Government Woodland Estate

Managed by Natural Resources Wales:

- 123,000 hectares, approx. 40 % of Welsh Forest Resource – Largest land manager in Wales
- 21.2million m³ Standing stock of timber
- Largest supplier of certified timber in Wales, current annual production of approx. 620,000tonnes (approx. 60% of market share)
- 200+ individual commercial contracts per year
- The purpose and role of the Welsh Government Woodland Estate



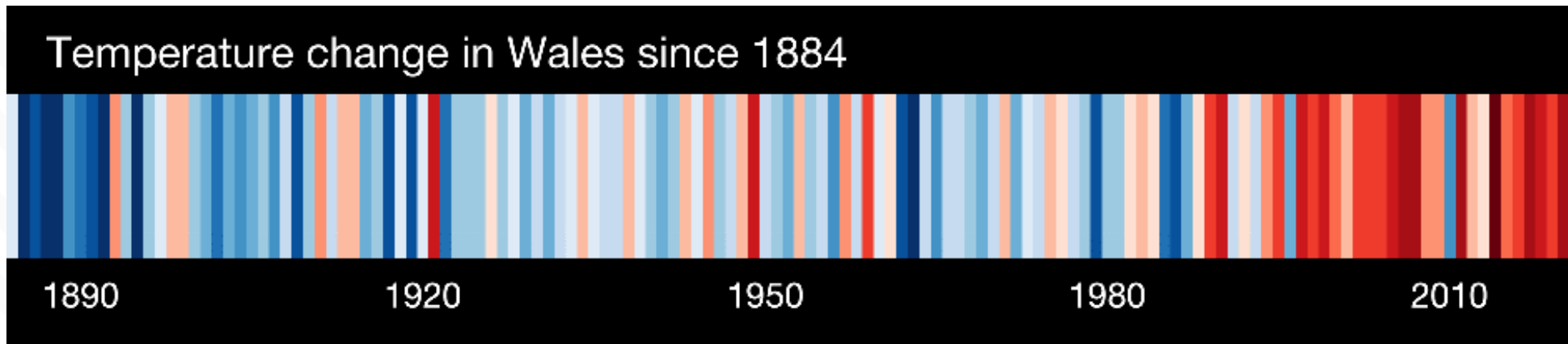
UK CLIMATE RISK

HOME PUBLICATIONS NEWSROOM ABOUT

Independent Assessment of UK Climate Risk

by Prof. Ed Hawkins [#ShowYourStripes](#)

Read our comprehensive assessment of the risks and opportunities facing the UK from climate change.



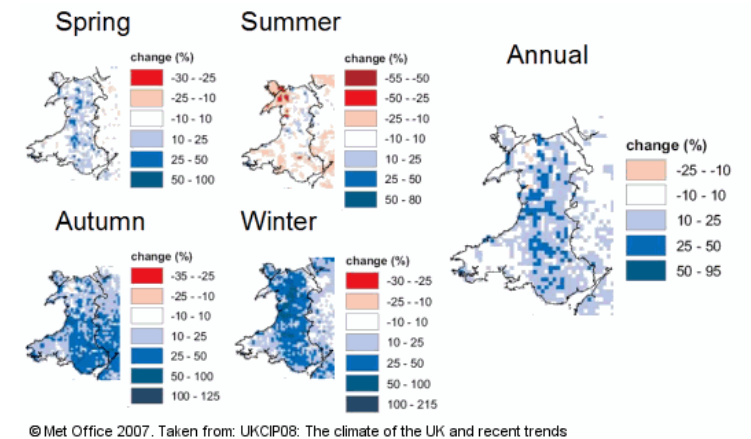
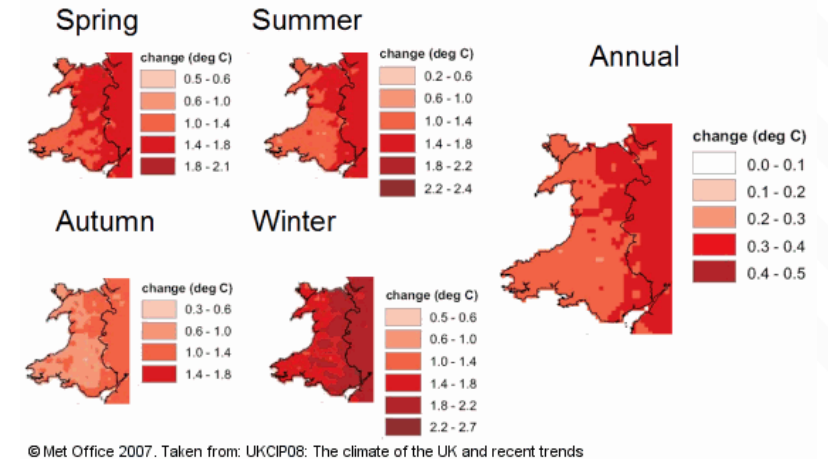
Sector Briefing: Land Use, Land-Use Change and Forestry Briefing (CCRA3-IA)



- 4 x More Action needed
- 2x Further Investigation
- Temperatures
- Water availability
- Pests and disease
- Soil health
- Wildfire

Climate change in Wales:

- Summers will become warmer, and winters will become milder
- The rainfall distribution will change, leading to drier summers, particularly in eastern and southern areas, and winters will be wetter across Wales
- Increased frequency of drought throughout Wales, and particularly in the south
- Increased frequency of high-intensity rainfall in winter leading to a greater likelihood of flooding, landslips, wetter soils, and risk of soil erosion and sedimentation of watercourses
- Less winter cold and fewer frost days
- Likely changes in wind climate, possibly with more frequent strong winds.



(Recorded changes in the climate of Wales -
Forest Research)

Impact: Change in site conditions

- **Road network under pressure**
 - 22,000 HGV movements per year focussed into a shorter time period
 - 3,700km of forest road to maintain (SUDS)
- **Culverts and crossings may not have capacity for peak stormflow.**
- **Water Framework Directive**
 - disconnected drainage network discharging into stands – destabilising crops
- **Summer harvesting no longer a guarantee**
 - Peak seasonal demand for harvesting resource
- **Increased risk of siltation from diffuse pollution**
- **Increased risk of windblow**
- **No benefit from frost conditions**



Impact:



Change in forest species:

- Changes in species behaviour (breeding, habitat, foraging)
- Longer bird nest activity (multiple brooding)
- Migratory species
- Ecological refugees

Change in threats:

- Epidemic/Endemic threat of pests and disease
- Regulation requirements
- Catastrophic wildfire
- Wind-events

Change in society:

- Increase in visitor pressure
- Lower tolerance to harvesting activity/haulage
- Antisocial behaviour

Industry Adaptation:

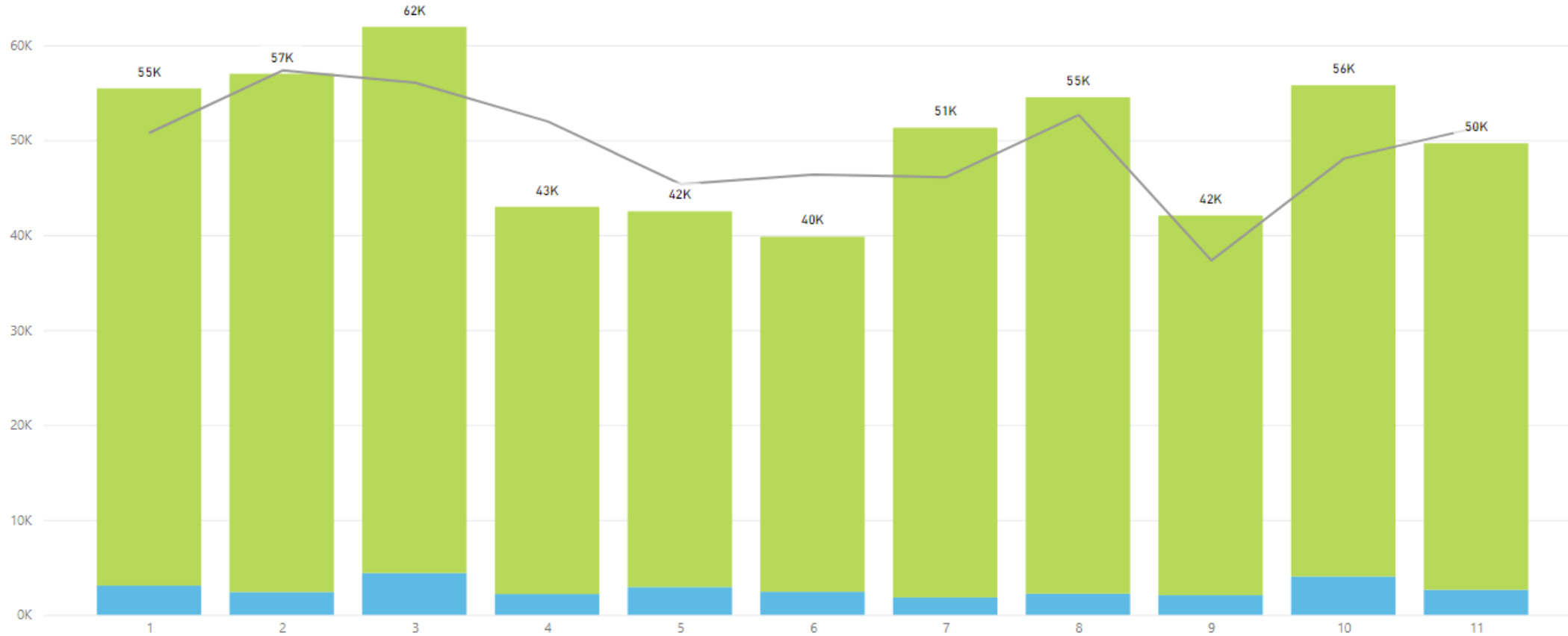
- **Optimising work schedules to fit site constraints**
- **Agile working methods to respond to extremes**
- **Appropriate silvicultural practices** (brash management)
- **Processing sector resilience** (stock management, contingency)
- **Harvesting resource capacity** (appropriate machinery, skills, availability)
- **Innovation**
- **De-carbonise**
- **Knowledge transfer** (professional and societal)
- **Land-use competition**



WGWE Timber despatches 2023/24

Dispatched weight by Fiscal Month and Department. Trend line showing averaged quantity over past years'

Department ● Roadside Sale ● Standing Sale ● Monthly Average



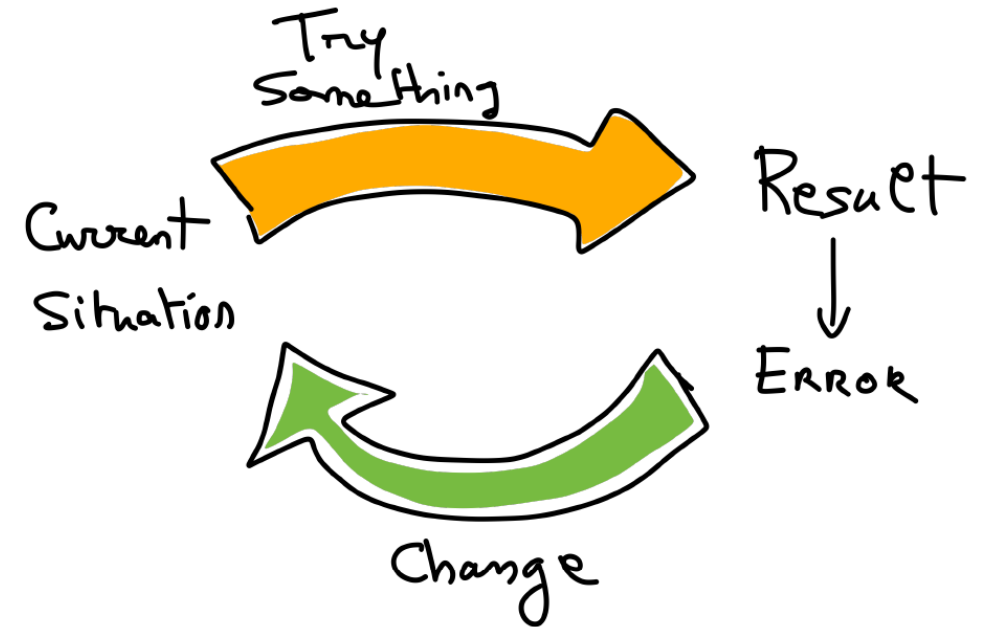
Alternative methods of Timber Sale

- **Up to 70% by volume through conventional tender sale**
- **Minor Produce Sales (<5 tonne parcels),**
 - available to all,
 - annual limits.
- **Progressive Sale Opportunities (Multi-year contracts)**
 - Enable change and investment through continuity of supply
 - Encourage operational agility
 - Secured programme for grower and customer
- **Designated Supply Contracts**
 - Tree to table approach, identifying suitable stands/parcels for construction.
 - Improve utilisation of timber and apply Carbon hierarchy
 - Customer/End user input



Summary:

- Seasonality less difficult to predict Planning operations will become more difficult
- Harvesting more challenging
- Foresters will have to adapt management approach
- Increase awareness of impacts
- Consider the end use of timber when prescribing management



Adaptation comes from trial and error 😊



