

# Climate Change adaptation on Exmoor

Dan James  
Sustainable Economy Officer



Enhancing  
the qualities that make  
Exmoor  
special

## Tourism on Exmoor

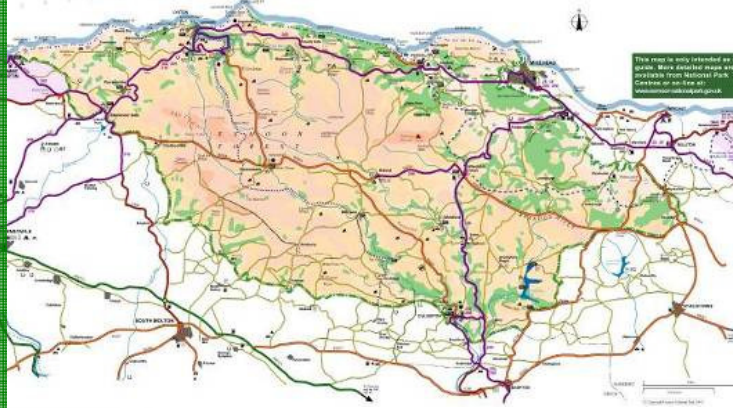
- Over 2million visitor days a year generating approx. £85m/year the largest single component of the economy by far.
- The top three attractors are:
  - **Tranquillity**
  - **Scenery / Landscape**
  - **National Park status.**
- The National Park and the natural environment are the asset on which Exmoor tourism is built upon.
- This presentation looks at what is happening to adapt that asset – as opposed to work with tourism businesses directly which we're all familiar with.



Enhancing  
the qualities that make  
Exmoor  
special

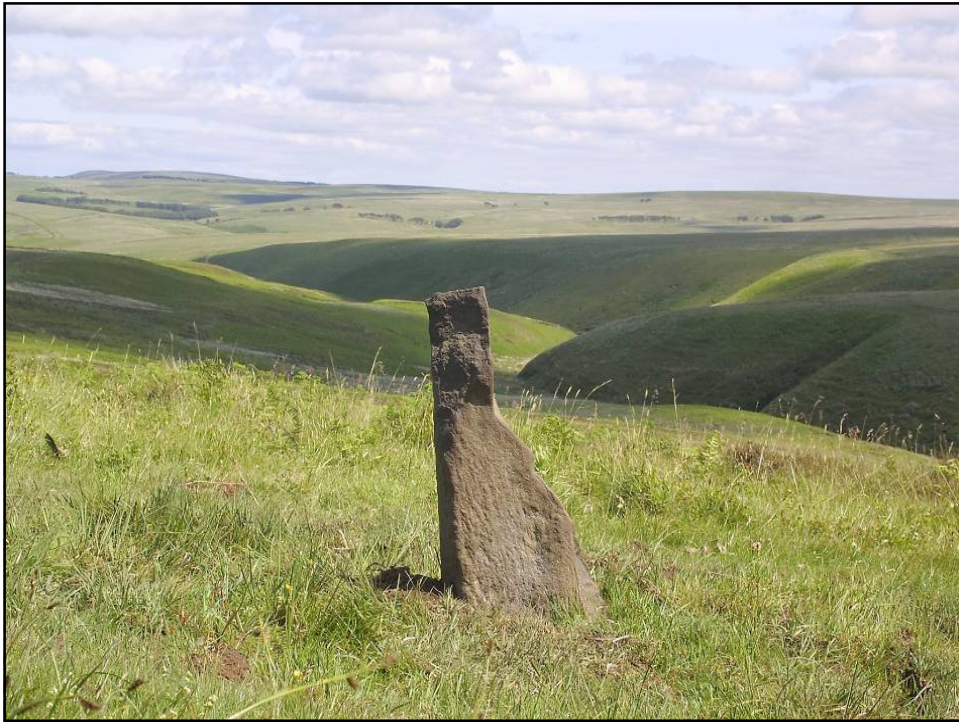
# Exmoor National Park

- Open moorland
- Steep-sided, wooded valleys
- Spectacular coastal views
- 4,900 households, pop. Circa 10,500
- 2 million visitor days



Enhancing  
the qualities that make  
**Exmoor**  
special







## Context

- National Park purposes:
  - To conserve and enhance the natural beauty, wildlife and cultural heritage of the area
  - To promote opportunities for the understanding and enjoyment of its special qualities by the public.

*...and in doing so, foster social and economic wellbeing*

## National Park Management Plan

- Our bible – a plan for the Park, with over 40 different lead organisations
- 4 key challenges identified including:
  - Responding to climate change
  - Achieving a sustainable economy and thriving community
- Drafted in 2006 it includes a clear focus on the impact of climate change on Exmoor's habitats and wildlife

Enhancing  
the qualities that make  
Exmoor  
special

## Likely CC impacts



- Decline in species that are at southern limits and /or likely to respond poorly to new summer climate e.g. Beech and lichens. Merlin and Ring ouzel
- Increased stress on veteran trees
- Increased species at or near northern limits
- 'Alien' invasion through colonisation
- Increased gorse and bracken spread
- Increase in tick numbers
- Longer growing breeding / growing seasons
- Loss of cold water maritime species
- Disruption to hibernation patterns
- Increased coastal erosion
- Longer more frequent periods of low water flows, increased vulnerability to pollution in summer and floods and erosion in winter
- Increased soil erosion due to drought stress and increased storm water – especially on steeper slopes
- Peat soils may become drier and harmful summer fires increase – need to adapt current swaling (burning) practices
- Coastal flooding
- All of the factors we're familiar with in terms of impact on the visitor economy...

Enhancing  
the qualities that make  
Exmoor  
special

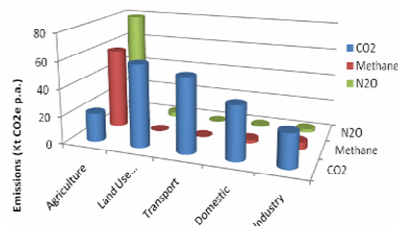
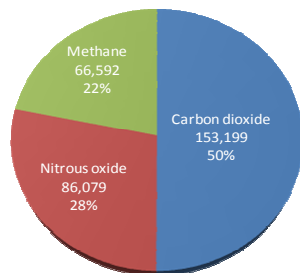
## Climate Change Adaptation initiatives

- An integrated plan – mitigation, adaptation and resilience
  - Carbon Neutral Exmoor
    - Carbon neutral programme
    - Community Sustainable Energy Plans
    - Low Carbon Communities Challenge
  - MIREs project
  - Local Development Framework
  - Pathfinder Project
  - Voluntary reporting on adaptation to Defra
  - Sustainable Tourism
  - Several others covering (for example): sustainable energy, transport and tourism; local food; local sustainable construction materials; low carbon skills



## Carbon Neutral Exmoor

- Baseline emissions established



- Community Sustainable Energy Plans drawn up for 6 local settlements
- Carbon Neutral Programme out for consultation ([www.exmoor-nationalpark.gov.uk/carbon-neutral-programme.htm](http://www.exmoor-nationalpark.gov.uk/carbon-neutral-programme.htm))

Enhancing  
the qualities that make  
**Exmoor**  
special

## Low Carbon Communities Challenge

- One of 23 communities across the UK to be selected
- Just over £400,00 from DECC to fund community based low carbon projects
- Capital fund but measured through community engagement
- 21 projects short listed across Exmoor incorporating 10 communities
- Dartmoor and Exmoor Low Carbon Festival to run again in October 2010.

([www.exmoor-nationalpark.gov.uk/lowcarbonchallenge.htm](http://www.exmoor-nationalpark.gov.uk/lowcarbonchallenge.htm) / [www.exmoor-nationalpark.gov.uk/lowcarbonfestival](http://www.exmoor-nationalpark.gov.uk/lowcarbonfestival))



## MIRES project

- Aims to restore the natural hydrology of degraded blanket bogs
- 313ha rewetted through 49,667m of ditches on 12 sites
- Over 1 million tonnes of CO<sub>2</sub> is estimated to be stored in Exmoor's peatland. Drained peatland degenerates and releases CO<sub>2</sub>; Rewetting the moors halts this release and over time peat will grow and absorb further CO<sub>2</sub>.
- New wildlife habitats restored
- Increased rainfall storage within the Moors
- Stabilises river flow patterns reducing flooding and erosion
- Hotter drier summers will accelerate peatland decline leaving nothing but dry stony ground and peaty water in rivers. Rewetting the moorlands will keep farming viable and alive.
- New 'Mires on the Moor' project has attracted £3.8m from South West Water / Ofwat for Exmoor and Dartmoor and could see a further 2,500ha of Exmoor rewetted.

[www.exmoor-nationalpark.gov.uk/mire](http://www.exmoor-nationalpark.gov.uk/mire)



## Planning Policy



- Local Development Framework consultations – ‘ Your Future Exmoor’
- Whilst our response to Climate change and mitigation (e.g planning policies regarding renewable energy) are specifically covered climate change adaptation is cross cutting throughout the process.
  - Policies to encourage / demand grey water recycling
  - Policies o provide climate proofing in new buildings
  - Policies to adapt traditional housing
  - Considering how we deal with changes to the coastline - e.g. Porlock Weir. Currently no new development is generally allowed outside of settlements – what if a settlement becomes unviable due to climate change – can exceptions be made to re-establish?

[http://www.exmoor-nationalpark.gov.uk/your\\_future\\_exmoor](http://www.exmoor-nationalpark.gov.uk/your_future_exmoor)

Enhancing  
the qualities that make  
Exmoor  
special

## Porlock Pathfinder Project



- A partnership approach aimed at helping local residents, business owners and people with an interest in Porlock Weir to understand what is likely to happen to the coastline and develop innovative ways to adapt to coastal change.
- 18 month project funded by Defra
  - Identify the likely risks associated with increased coastal flooding and address local concerns about coastal change
  - Raise awareness of future scenarios for Porlock Weir
  - Produce new and long lasting ideas that will be developed by local residents and maintained beyond the end of the project.

[www.somersetcoastalchange.org.uk](http://www.somersetcoastalchange.org.uk)



# Porlock Pathfinder Project



- Outputs that will help engage local communities include:
  - **An interactive timeline** highlighting key events throughout Somerset's history that have affected the shape of the coastline.
  - **Development of a scenario for Porlock Weir** following a major storm event to bring home the message of vulnerability to the sea. The scenario will have input from key community figures to ensure accuracy.
  - **Establishment of a Community Coastal Team.** The scheme will be composed of three main segments:
    - **Historical archiving** of local people's knowledge and experience of changes at the coast.
    - **Coastal monitoring of day-to-day changes at the coast.** Anyone can contribute to this segment; it would require a photograph being taken from the same location, focusing on the same feature on a regular basis. Over time, the subtle changes that occur following each tide or storm event could be documented into a powerful tool that can be used to show how dynamic the coastline really is.
    - **Building resilience within the community.** Using the information gathered from the first two segments, it is hoped that an Action Plan can be formulated that outlines to local residents useful procedures to follow in the event of a flood.



# Woodland Management



- 12% of Exmoor is woodland and has a higher than average proportion of ancient semi-natural woodland and coastal woodlands unique to the area.
- The primary aim in relation to Climate Change adaptation is ensuring our woodland industry is robust
  - Changes to silvicultural techniques
  - Increasing coppice management
  - Decreasing large hard standing forestry
  - Planting a wider range of species
  - Considering the benefits and costs associated with woody debris management
  - Limiting the threat from disease and invasion.



Enhancing  
the qualities that make  
**Exmoor**  
special

## Voluntary reporting



- ENPA is keen to show leadership in terms of Climate Change adaptation.
- The Climate change Act (2008) introduced a power for the SoS to direct 'reporting authorities' to prepare reports on CC adaptation.
- Reporting authorities include the major infrastructure suppliers such as Energy companies, water companies, transport bodies etc.
- Although not currently required to report to Defra on CC adaptation Exmoor NPA has voluntarily agreed to report, along with other English National Park Authorities (target 2011).



Enhancing  
the qualities that make  
Exmoor  
special