



COED CADW  
WOODLAND  
TRUST

# **Pontbren farmers – cooperative action for landscape scale change**



# **Landscape scale agroforestry**

- **How Pontbren fits within agroforestry**
- **What motivated Pontbren farmers**
- **Farm based benefits**
- **Wider benefits**
- **Beyond the Welsh uplands**
- **Questions for the future**



# Definitions

Agroforestry is a collective name for land-use systems ...where woody perennials are **deliberately used** on the same land-management units as agricultural crops and/or animals, in some form of spatial arrangement or temporal sequence. In agroforestry systems there are **both ecological and economical interactions** between the different components (Lundgren and Raintree, 1982).

- **Farmer led -sustainable land management**
- **Importance of knowledge of the land**
- **Value of cooperation**
- **Achieving land use change and wider objectives**







Photo: Rory Francis

**During the 19<sup>th</sup> and 20<sup>th</sup> centuries  
landscapes had become simplified**





# Pontbren Farmers

"Caring for the environment; farming with care"

## Pontbren News

HRH The Prince of  
Wales at Pontbren »

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## The Pontbren Farmers Group



Welcome to Pontbren, a group of 10 neighbouring small farmers and their families located in the heart of the Welsh countryside. The group is committed to farming at the highest possible standards of environmental management and animal welfare.

The Pontbren initiative was recognised and encouraged by a visit from HRH the Prince of Wales in July 2006.

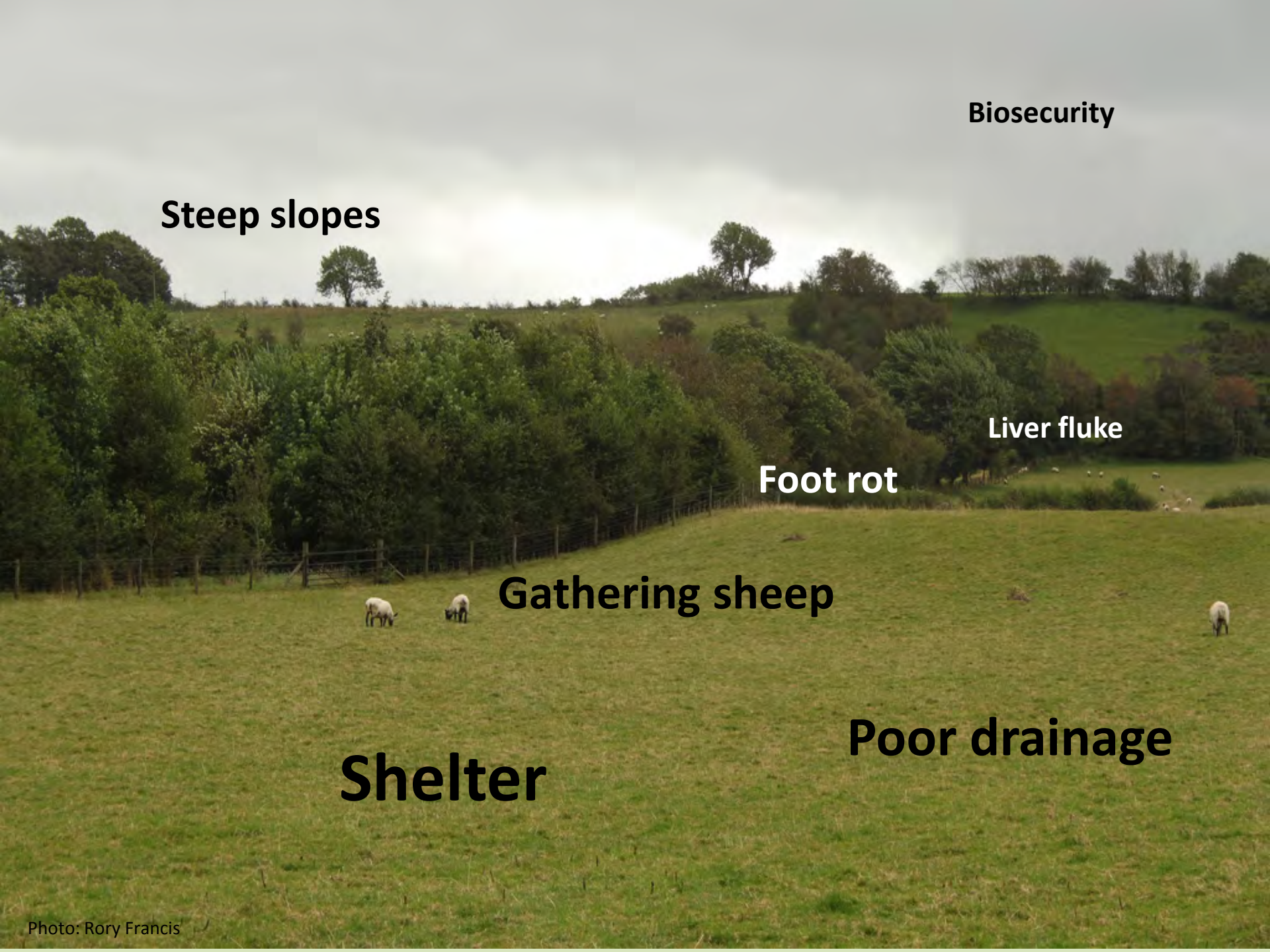






Photo : Coed Cymru





**Biosecurity**

**Steep slopes**

**Liver fluke**

**Foot rot**

**Gathering sheep**

**Shelter**

**Poor drainage**



# Advice is critical





# Overland flow was a significant runoff path





# Intensive monitoring between 2004 - 2011





**Water infiltration in shelter belts was 60 times that  
of neighbouring grassland**





# **Livestock excluded from streams**

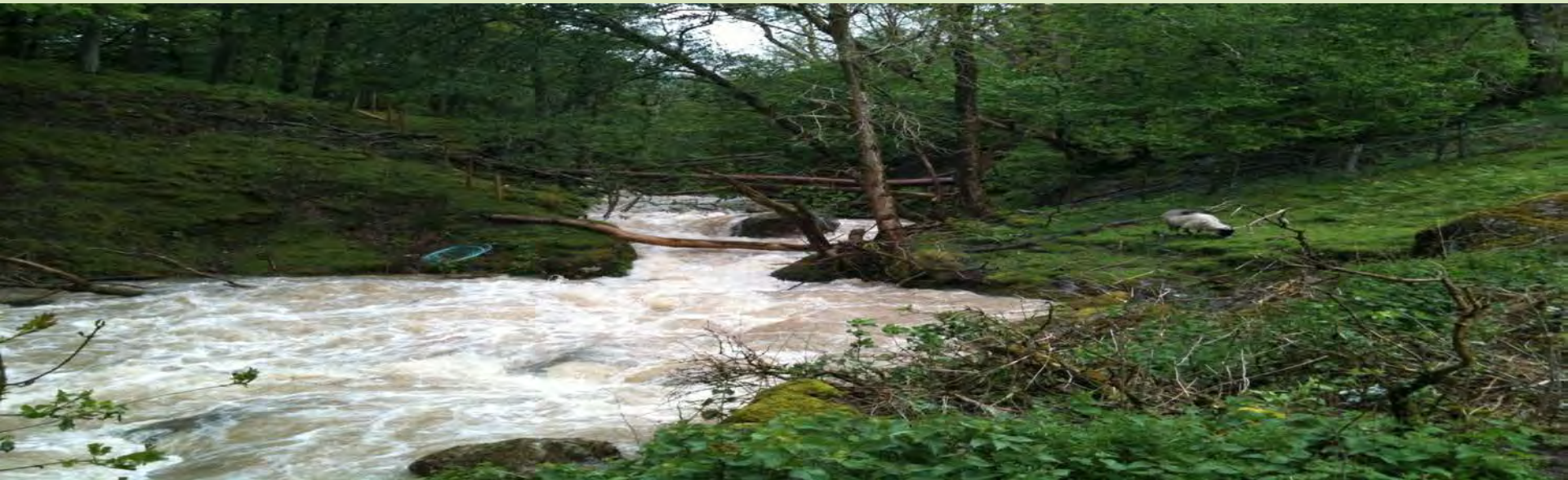
- **Vegetation has recovered**
- **Bank erosion has been reduced**
- **Stream morphology has recovered**
- **Riffles and pools important for spawning fish and other wildlife have reformed**





# Wider implication for water

- Peak stream flows reduced by 40%
- The 2007 floods cost around £3 billion in insurance
- Welsh government expect to spend £135m pa on flood defenses by 2035
- Agroforestry represents a costs effective way to reduce risk.





**‘Woodland’ increased from 1.5% to 5%**





# Business benefits

- Increase in farm net income
- Improved efficiency of livestock enterprises
- Future proofing
- Reducing the risk of water pollution and biosecurity





- **Trees and shelterbelts can make the management of upland farms more efficient**
- **They are wider environmental benefits.**
- **Site knowledge is critical**
- **Conventional grants lack sufficient flexibility**
- **Farmer-led groups need access to advice**
- **Field based experiments are important**





Photo: Rory Francis

# **Wider benefits from working at a landscape scale**

- **Improving water quality**
- **Mitigating flood risk**
- **Supporting pollination services**
- **Contributing to habitat networks**
- **Improving air quality**
- **Capture of atmospheric nitrogen**
- **Carbon storage**
- **Increasing landscape resilience**



# Questions?

- **What needs to happen to encourage landscape scale collaboration?**
- **How do we capture the ‘rental value’ of landscape benefits of changing land use practices?**

