



Carbon Literacy for rural industries

Biomass

Sarah Erbanova, SAC Consulting (Part of SRUC)

Net zero and biomass

UK Net Zero Strategy 2021:

- Biomass – engineered removals and low carbon fuel production
- Support of hard-to-decarbonise sectors
- Diversification of energy mix – independence and energy security

UK Biomass Strategy 2023

- Renewable source of energy
- Commitment to biomass sustainability
- Strict biomass criteria to ensure genuine reduction in CO₂
- Cross-sectoral common sustainability framework
- Bioenergy with Carbon Capture and Storage (BECCS)
- Non-energy use of biomass: e.g. wood-based products, biochar, bio-chemicals and bioplastics



Net zero and biomass

Scottish Government's Draft Strategy and Just Transition 2023

- Bioenergy Policy Working Group – scale up domestic biomass supply chain
- Bioenergy Action Plan
- Biomass gasification for the production of negative emissions hydrogen
- Support market and incentivise deployment of BECCS

Draft Bioenergy Policy Statement 2024

- Ensuring feedstock has no other value to the society before being utilised for energy
- Domestic biomass production – better transparency and accuracy in GHG calculation
- Minimise risks to biodiversity and natural environment
- Minimising conflict between biomass and food production
- Facilitate Just Transition across different land uses



Biomass and net zero – the challenge

- Public perception
- Production of biomass cannot be driven only by net zero – look more widely at benefits vs negative impacts
- Production of biomass creates emissions
- Principles and conditions for biomass
 - Cost and financing
 - Feasibility and evidence base
 - Accountability
 - Transparency
 - Trust
 - Environmental impact
 - Prioritising natural resources
 - Impact on society



Climate justice and just transition in the rural industry

The Vision

Just transition = a fairer, greener future for all

- Climate resilient economy
- Delivers fairness and tackles inequality and injustice
- Sustainable land use and regenerative agriculture

The Challenge

Land use and agriculture have an essential role in Scotland's Net Zero:

- Reduce emissions in line with the national targets
- Remove remaining carbon emissions from the atmosphere by creating carbon sinks
- Increase renewable energy capacity

while:

- Continue producing food, materials and other resources
- Continue providing services
- Improving the quality of life
- Providing fair work
- Making rural, coastal and island areas more resilient
- Improving natural environment for future generations

Food & Footprint at SAC Consulting

Independent advice. Trusted expertise.
Driving sustainable growth.

We offer the breadth and depth of consultancy needed to make meaningful changes.

Working with estates, SMEs, corporates and public sector. Advising on carbon management and footprinting, peatland restoration, ecology, forest planting, carbon markets, diversification, life cycle analysis, marketing, natural capital and sustainable packaging.

Challenge:

- **Net Zero Scotland by 2045** is legally binding target and impacts on all economic sectors
- Climate change is a complex issue
- Solutions to low carbon economy exist, but implementation is slow, often due to lack of awareness and understanding

Solution:

- We bridge the implementation gap by delivering **Carbon Literacy training** to the rural sector to
 - level the playing field
 - empower people with knowledge
 - equip individuals and employees with the ability to commit to strong carbon reduction actions, for themselves and in their wider context
 - to unlock everyone's ability to play role in net zero

Carbon Literacy Training



- Externally accredited by Carbon Literacy Project
- Designed specifically for agricultural, food and land-based businesses
- Delivered in partnership with Keep Scotland Beautiful
- Carbon Literacy training is accessible to everyone
 - works to create low carbon culture
 - helps organisations embed sustainable behaviours

**Futureproof
your business
with Carbon
Literacy Training**

The one-day course will provide a recognised qualification and the same foundation knowledge to level the playing field towards the Just Transition to net zero, no matter if participants manage a croft or a global multinational.

Participants will enhance their business sustainability credentials and demonstrate commitment to reaching Scottish Government's net zero targets, while helping to futureproof their businesses, taking tangible action towards measuring and reducing carbon emissions from everyday activities.

Training options: We offer a range of virtual training, in-person training around Scotland, or even bespoke training delivered within your organisation.

Costs: Prices will vary based on the training options required.

Take charge of your Carbon Literacy and enrol your farm business, rural estate, food and drink, aquaculture, or other land-based business today!

Find out more
[www.keepsotlandbeautiful.org/
carbonliteracy-ruralindustries](http://www.keepsotlandbeautiful.org/carbonliteracy-ruralindustries)

Carbon Literacy for rural industries – content

Responses to climate change

- Global and local action
- **Adaptation and mitigation**
- Net zero Scotland

Reducing emissions

- Carbon footprint
- **GHG emissions and their sources**
- **How to reduce emissions**

Climate Justice and Just Transition

Climate change action co-benefits

Climate change communication

Carbon Literacy Assessment

- How do we achieve net zero as a society?
- Individual and group emissions reduction pledges



Food & plant production
 Agriculture – farming & crofting
 (livestock & arable)
 Fishing and aquaculture
 Horticulture
 Food and Drink



Resource extraction
 Forestry
 Quarrying
 Land-based engineering



Land management
 Estate management
 Landscaping



Leisure & Environment
 Game & Wildlife
 Environmental Conservation
 Rural tourism and recreation
 Equine

Why is climate action important for rural industries?

- The rural industry creates jobs, supports communities and contributes significantly to the economy.
- 17 % of Scotland's population lives in rural areas.
- Vulnerable to the impacts of climate change whilst also contributing to anthropogenic driven climate change.
- To respond to legislative requirements, public awareness and changing customer and investor behaviour.
- Opportunity for capturing new markets, attract new customers, minimise business risk, demonstrate leadership and enhance its trust within the community.



By kind permission of SAC Consulting

Why Carbon Literacy for rural industries?

Sector-tailored content

Relevant case studies

Group discussions

Latest data, news, technologies and innovations

Bespoke training option

Case Studies Soil Regenerative Agriculture Group

- Network of five farmers who tested soil regen practices
- Improve production, tailor inputs and maximise profitability
- Results: Five key principles of regen agriculture:
 1. Maintain a living root
 2. Minimise soil disturbance
 3. Maximise crop diversity
 4. Keep soil covered
 5. Integrate livestock
- Carbon Impacts: reduction of nutrient leaching and soil erosion, reduced use of fuel, decreased use of fertilisers
- Other benefits: higher crop productivity, increased resource use efficiency, improved weed, pest and disease control, increase in resilience, lower input costs



By kind permission of SAC Consulting

Climate change impacts in the rural industry Agriculture

- Damage to crops
- Increase risk of soil erosion
- Reduces soil quality and health
- Increase in pests and disease damaging crops
- Reduced grazing
- Supply shortages
- Risk of death to livestock
- Disruption to supply chains (livestock feed, grain, fertilisers)
- Increasing energy and fuel prices
- Financial risks to the business
- Changing customer demands
- Longer growing season



Keep Scotland Beautiful
Unless otherwise indicated all materials and media are copyright © Keep Scotland Beautiful & SAC Consulting. All rights reserved.
Keep Scotland Beautiful is a Scottish Charitable Incorporated Organisation (SCIO) Number SC030332.

1 What factors make some communities and individuals more vulnerable to the impacts of climate change?





SAC Consulting – carbon literate advisory

- SAC Consulting has eight Carbon Literacy training facilitators delivering:
 - External training for rural industries
 - Internal training for our workforce
- We've committed to achieve Carbon Literacy certification for all our staff members
 - to ensure carbon literacy and climate change action are embedded in all our advisory services
 - to nurture low carbon culture across the business
 - to continue empowering rural communities we work with
 - to support Just Transition

“

The training empowers businesses working in rural industries to develop and implement credible and feasible plans for measuring and reducing carbon emissions and catalyse behaviour change at scale.

Carbon Literacy training offer

1. Open cohort delivered quarterly
Wide range of rural industries
 2. Bespoke training course tailored to organisational needs
Training materials designed in collaboration with client
 3. Development of new sector-based course
Designing of a sector-specific course
- Carbon Literacy certification



Levelling the playing field for the Just Transition with our **Carbon Literacy Training**, designed specifically for agricultural, food, and land-based businesses of all shapes and sizes.

Find out more

