



European Network for
Rural Development

Economic value of climate change mitigation in rural bioeconomy

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4th meeting of the Thematic Group Bioeconomy and Climate Action in rural areas

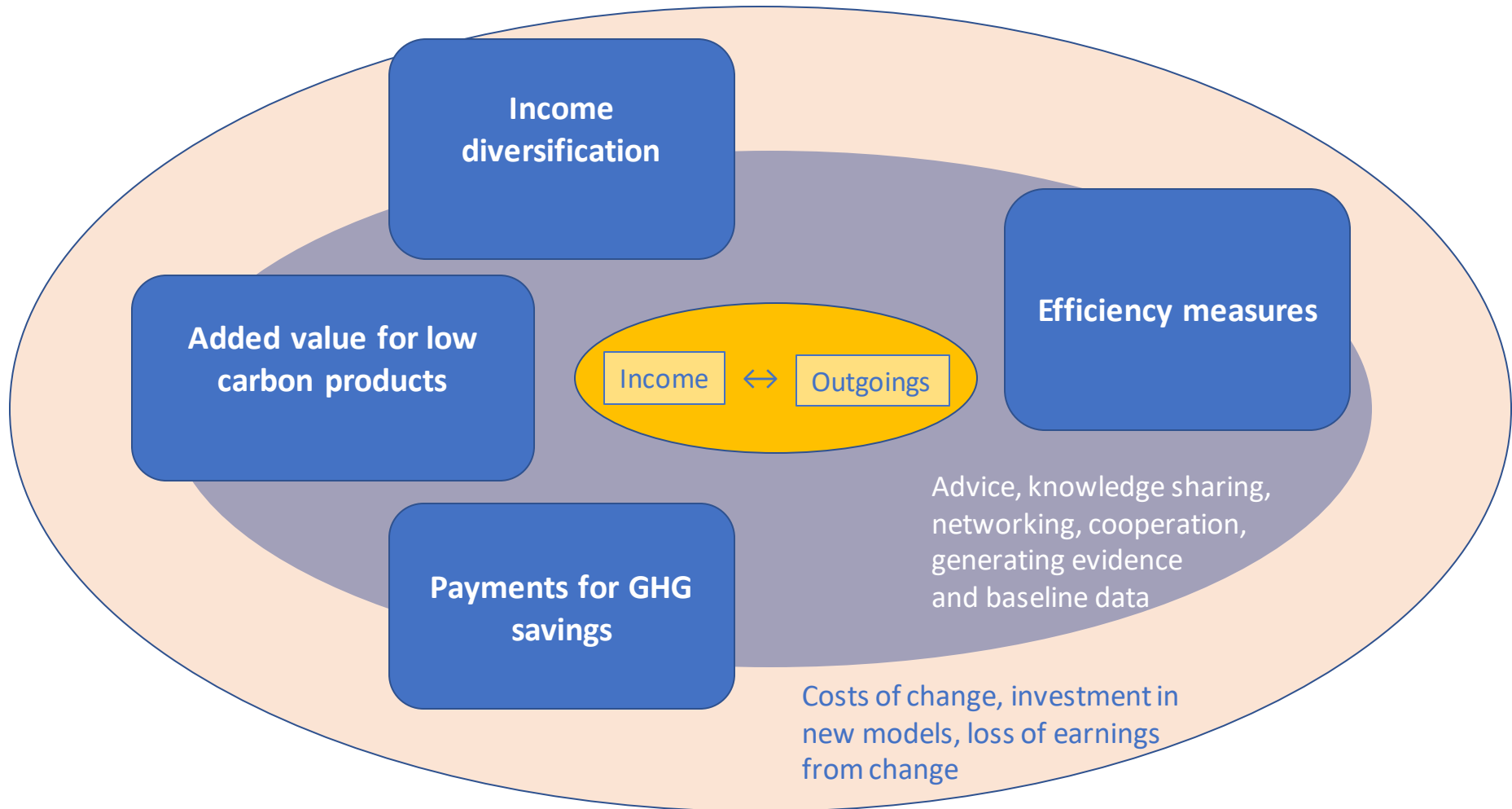
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Economic opportunities resulting from pursuing climate action within the rural bioeconomy



Efficiency measures

- **Reduction in outgoings, costs of disposal**
- **Use of co-products and residues to generate new opportunities**
- **Alternative management practices that reduce ongoing costs**

<p>Agriculture</p> <ul style="list-style-type: none"> • Low input, climate smart farming • Less chemical fertilisers • Reduced use of fuel • Combining crops, inter cropping, cover crops 	<p>Examples:</p> <p>Kowalski farm - Combining efficiency techniques, environmentally responsible practices and high quality products to promote on farm resilience and greater profitability/cost savings</p> <p>Soil testing in Lithuania – reducing fertiliser inputs, promoting soil fertility, reducing costs, promoting productivity</p> <p>On farm audit tools – assessing GHG emissions and potential efficiency savings (energy, on farm inputs, efficiency in terms of feed production for livestock)</p>
<p>Rural communities</p> <ul style="list-style-type: none"> • Energy efficient/energy sovereign communities • Smart services (mobility etc) • Communal rural facilities and infrastructure 	
<p>Rural enterprises</p> <ul style="list-style-type: none"> • Energy efficient measures • Optimising resource use • Making better uses of wastes or residues 	

Diversification of income

- **Developing markets linked to bi-products and co-products**
- **Changes in practices to promote emission reductions and carbon sequestration on land**

Innovation

- Connecting land management improvements, products, use of bi-products and wastes with new business opportunities
- Linking farmers to wider opportunities to produce new products

New opportunities

- Innovative use and valorising of by-products
- Increasing circularity/alternative production patterns tailored to emerging needs
- New business ideas and models

Examples:

[Hisa-vin-Kokol](#) – Diversification of products using vine by-products (grapeseeds) from grape processing

Consorzio Italiano Biogas (CIB) developed a concept that they coined “[BiogasDoneRight](#)”. Economic and environmental added value concept includes a change in land management to promote crop rotation, year round soil cover, a transition to minimum tillage, use of digestate in place of chemical fertilisers, precision farming to increase the efficiency of digestate use, and introduction of legumes to complement digestate fertilisation alongside biogas product and use of waste heat.

Value added through low carbon products

- **Value/supply chain transition**
- **Reducing the carbon footprint of the products delivered by the chain**
- **Supporting alternative incomes within the bioeconomy**

- Using supply chain connections as a way to mobilise change/support innovation

- Bottom up/top down – supply chain actors working together
- Ideally combining action from producers, processors and final end users
- Making links to consumer labels and added value opportunities
- Making link to wider societal goals and funding

Examples:

[Spar](#) in Austria (in collaboration with WWF) – support for farmers to promote soil carbon sequestration among their supply chain vegetable growers. Provision of advice, support and branding.

[Coop in Switzerland](#) – Supporting tree planting and agroforestry approaches on organic farms. Intended to deliver both ecosystem services, promote GHG reduction and provide income diversification for farmers (planting fruit trees and management to produce material grade timber at end of life)

Payment for GHG reductions

- Emission reductions are monitored, reported and verified based on set provisions
- Payment proportional to the emission saved (and potentially other parameters valued by society or the funder eg biodiversity)

- Emission reductions delivered as per set rules and requirements linked to additionality, eligibility and monitoring
- Bringing together land managers, stakeholders and potentially new funders

- Public – payment for climate services
 - CAP AEC payments
 - National schemes
- Private – voluntary carbon offsetting markets; reflecting corporate social responsibility ambitions

Examples:

[Moorfutures](#) – Rewetting of peatlands in northern Germany, landscape scale change funded in part by credits bought by the local community. Based on biodiversity, water level and carbon based monitoring parameters.

French [Label Bas Carbone](#) – Development of a mechanism in France where by schemes seeking to provide credits linked to land use and management can be approved/validated; credits and registries regarding purchases can be coordinated.

