



AgroRES
Interreg Europe



European Union
European Regional
Development Fund

Regional Self assessment North Karelia, Finland

Pasi Lamminluoto

Regional Council of North Karelia

Pasi.lamminluoto@pohjois-karjala.fi

25 February 2021 | IE Italy



Current status of RE in agriculture

- ❑ Currently 67 % of the energy consumption in the region is based on renewable sources – target for the 2040 is 100 %
- ❑ Special conditions in terms of climate
- ❑ Recent study completed – good overview of the RE current state and potential in the sector
- ❑ In last decade RE in agriculture sector has been promoted mostly by development projects, investment subsidies and different kind of guidance services

Current status of RE in agriculture

- ❑ In farm scale most used RE applications are wood and forest-based energy sources – also solar power usage has increased significantly
- ❑ Farm scale biogas plants are still very uncommon – although there is a massive potential for them
- ❑ CO₂ emissions in agriculture (apart from livestock and field cultivation) are mainly related to fossil fuel heating and machinery

SWOT analysis

STRENGTHS

- The use of RE in the agricultural sector is promoted in a variety of ways and through different authorities
- Rural Development Programme's agricultural investment aid is suitable for different kinds of RE investments
- Finland has made changes to its tax regime to boost small-scale renewable energy sector

WEAKNESSES

- Agricultural investment aid is granted only for investments where the energy is used in agricultural production activities. Thus, it prevents selling of energy
- Biogas plants do not receive gate fee (feedstock reception) for taking in manure
- Permit procedures for biogas plants are complicated

OPPORTUNITIES

- High potential in biomass based RE production
- High potential in electricity and liquid bio-fuels in agricultural machinery
- High level of knowledge and RDI of wood and forest industry in the region

THREATS

- Lack of funding and subsidy sources in RE investments in agricultural sector
- Failing to change the mindset in agriculture sector towards more positive in terms of RE investments
- Lack of political will to develop legislation, regulations and taxing related to RE production and usage

Measures for diffusion of RE in agricultural sector



Abandoning fossil fuels in heating

- Identifying alternative heating solutions for sites that use fossil fuels
- Influencing the operating environment, e.g. to increase investment subsidies
- Reduction of heating demand and energy efficiency measures
- Guidance and advisory services to increase know-how on the benefits of new heating methods
- Grants to support and accelerate investments

Key players: farmers, advocacy groups, government, manufacturers



Farm-scale biogas production

- Influencing the operating environment, e.g. promotion of various investment, energy and production subsidies to improve profitability
- Incentives to replace natural gas with biogas
- Making the permit process less complicated
- Biomethane as part of national distribution obligation
- Improving investment aid eligibility criteria: also investments that produce energy to other activities than agricultural production should be allowed
- Improving financing possibilities
- Increasing the use of biogas in transport, e.g. in public transport

Key players: farmers, advocacy groups, state administration, biogas plant suppliers



Replacing diesel in agricultural machinery

- Development and support of alternative technological solutions
- Increasing the use of renewable biodiesel
- Influencing the operating environment, e.g. to improve subsidies for the purchase of machinery
- Development of machine leasing solutions and offer.
- Support for gas filling stations and distribution infrastructure
- Registration of biogas tractors for road use
- Promoting the production and use of hydrogen

Key players: farmers, advocacy groups, government, manufacturers



AgroRES

Interreg Europe



European Union
European Regional
Development Fund

Thank you!

Questions welcome



Project smedia