

SUMMARY

SOUTH BALTIC FARMS
AN ESSENTIAL PART OF RENEWABLE ENERGY SYSTEMS



Interreg
South Baltic



Co-funded by
the European Union



D2.1 REPORT ON POLICY FRAMEWORKS IN SOUTH BALTIC STATES REGION, STAKEHOLDER NEEDS AND CHALLENGES



REGIONAL INSIGHTS ON RENEWABLE ENERGY IN AGRICULTURE ACROSS THE SOUTH BALTIC REGION

In June, 2022 the cost of importing fossil fuels (oil, coal, and natural gas) in EU has surged from approximately **€300 billion to nearly €720 billion** - driven by crises such as the COVID-19 pandemic and the war in Ukraine. This has coincided with a 32.6% increase in renewable energy (RE) production.



EU policies - such as the RED, RED II, and RED III directives, along with initiatives like REPowerEU and the European Green Deal - aim to raise the share of RE to 40 - 45% by 2030 and drive Europe toward carbon neutrality by 2050. Financial support from EU funds (e.g., NextGenerationEU) is pivotal in enabling these projects.



BIOENERGY:

Increased production of biogas and is crucial for diversifying energy sources and enhancing energy security. Leading nations invest in small and micro biogas plants using local resources.



WIND ENERGY:

In 2023, wind power reached record levels - surpassing gas and coal - demonstrating the need for further investment and regulatory streamlining for both onshore and offshore farms.



PHOTOVOLTAICS:

As the fastest growing sector, expanding PV installations (including residential systems) help reduce gas imports, support environmental protection, and create new jobs.



RENEWABLE ENERGY IN AGRICULTURE

»»» SOUTH BALTIC REGIONAL OVERVIEW

The adoption of renewable energy systems in agriculture across Lithuania, Poland, and Germany presents a complex blend of shared challenges and country-specific dynamics. Solar energy stands out as the most favored technology across the region, reflecting its versatility and relatively lower barriers to entry for agricultural operations. However, the pace and scale of renewable energy adoption vary significantly among the three countries, shaped by their distinct socio-economic and agricultural landscapes.

»»» HOW ARE FARMERS IN SBS ADOPTING RENEWABLE ENERGY?

Our latest report dives into regional **insights from 271 farmers** across the South Baltic area. Farmers in Lithuania, Poland, and Germany are increasingly adopting renewable energy, driven by factors such as cost savings, energy independence, and environmental responsibility. However, they face challenges including high initial investments and complex regulations. This report examines these motivations and barriers, offering insights to support further adoption and sustainable agricultural development across the South Baltic region. The goal is to use this data to inform future policies and initiatives - and to find solutions that are best tailored to farmers' real needs.





DEMOGRAPHICS & STRUCTURE

GERMANY

76% of respondents are male with the largest group aged 55 - 64 years (34%), indicating an aging workforce. The majority of farms are large-scale - 61% exceed 501 hectares - with a diverse ownership structure (52% sole proprietorships, 22% corporations, 18% cooperatives, and 8% family).

34% 55-64
years old

POLAND

Farmers are predominantly male (69%) with the largest age group being 45 - 54 years. Most operate small to medium-sized farms (mostly under 10 - 25 hectares) as sole proprietorships with strong family labor involvement.

32% 10-25
hectares

LITHUANIA

The farming sector is mainly male (82%) with a dynamic age mix; 35 - 44-year-olds account for 42%. Most farms are moderate in size (28% between 101 - 300 hectares) and are run as sole proprietorships or private family farms, with family labor playing a crucial role.

82% Male

RENEWABLE ENERGY ADOPTION

GERMANY

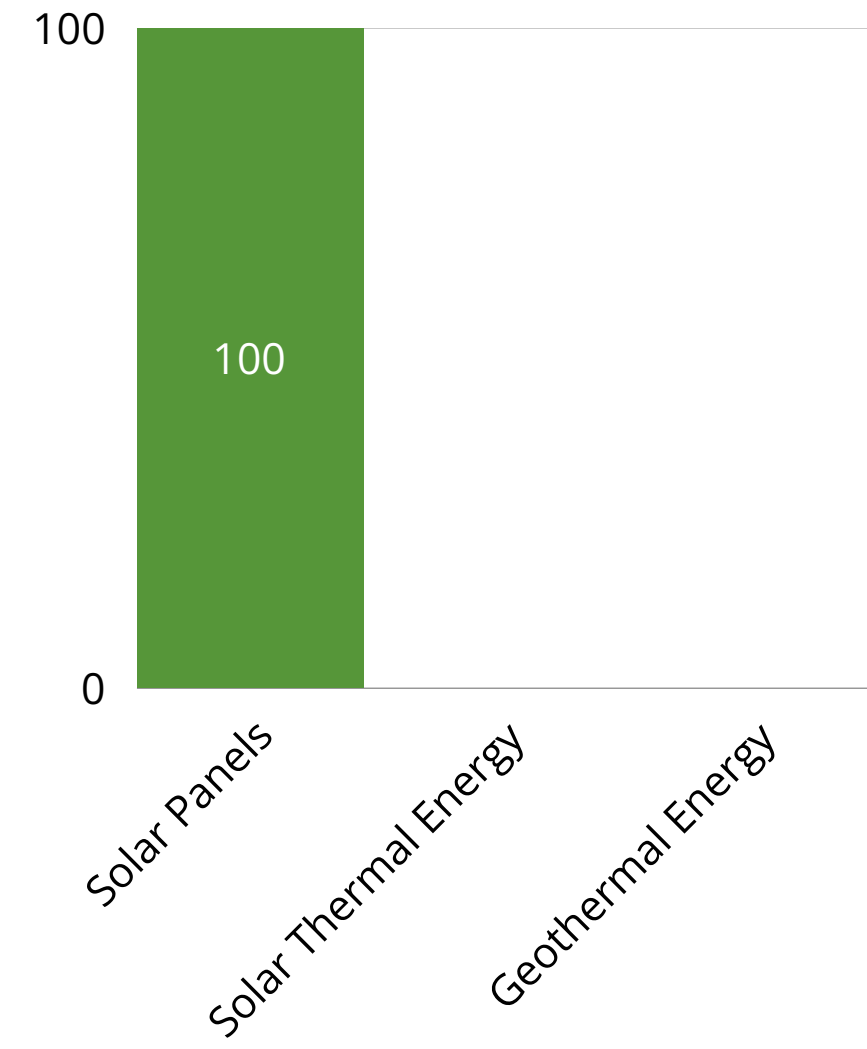
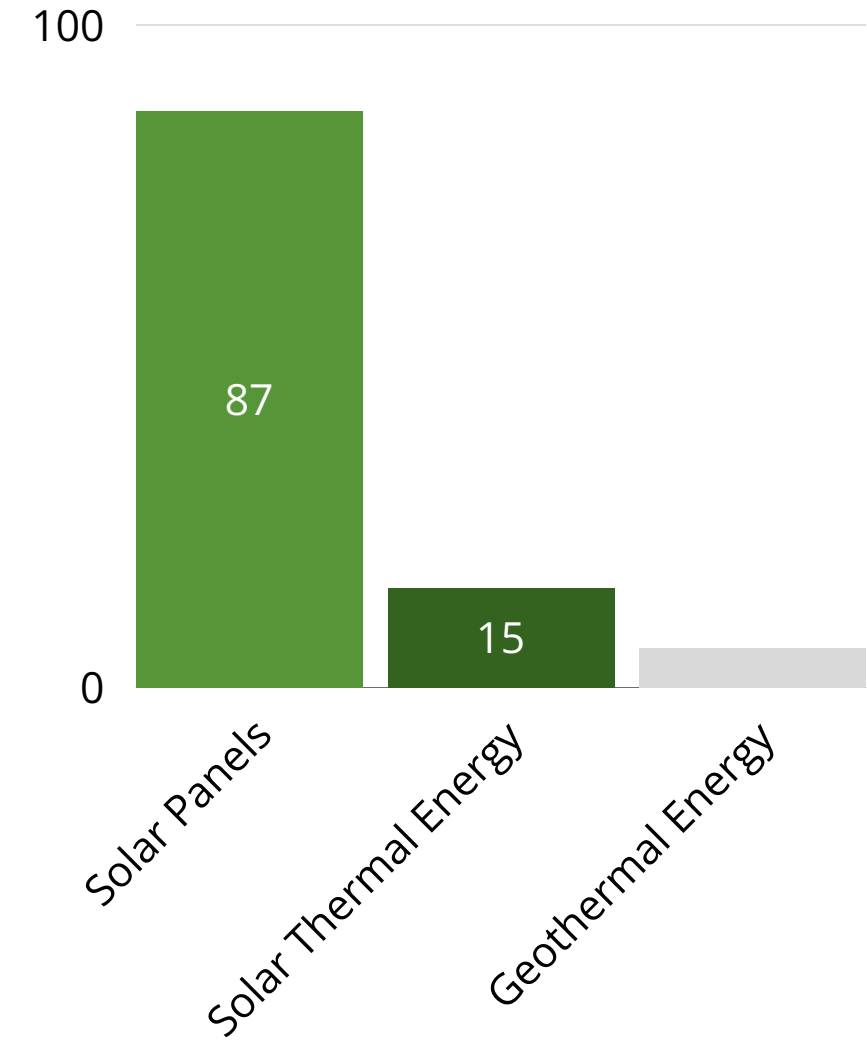
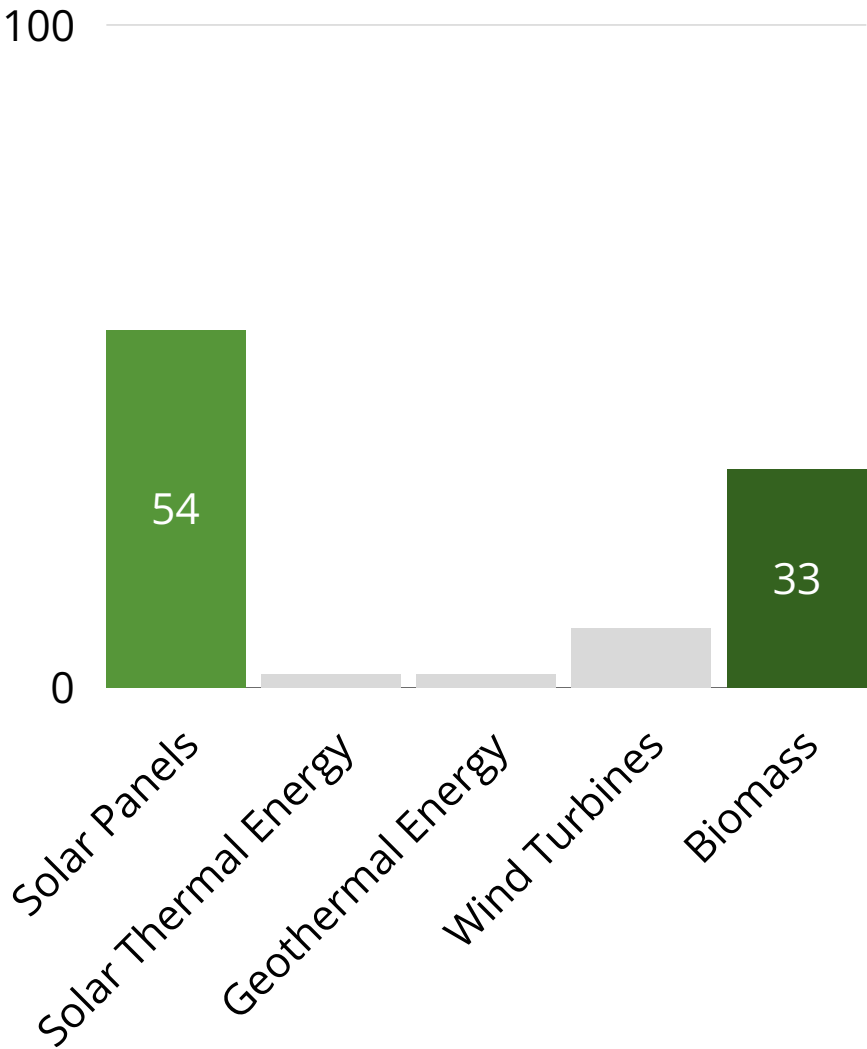
A high adoption rate of 74% is reported. The predominant technologies are solar panels (54%) and biomass systems (33%), with wind turbines used by 9%.

POLAND

About 53% have installed renewable systems - mainly solar panels (87%). Savings on energy bills and increased independence are key benefits.

LITHUANIA

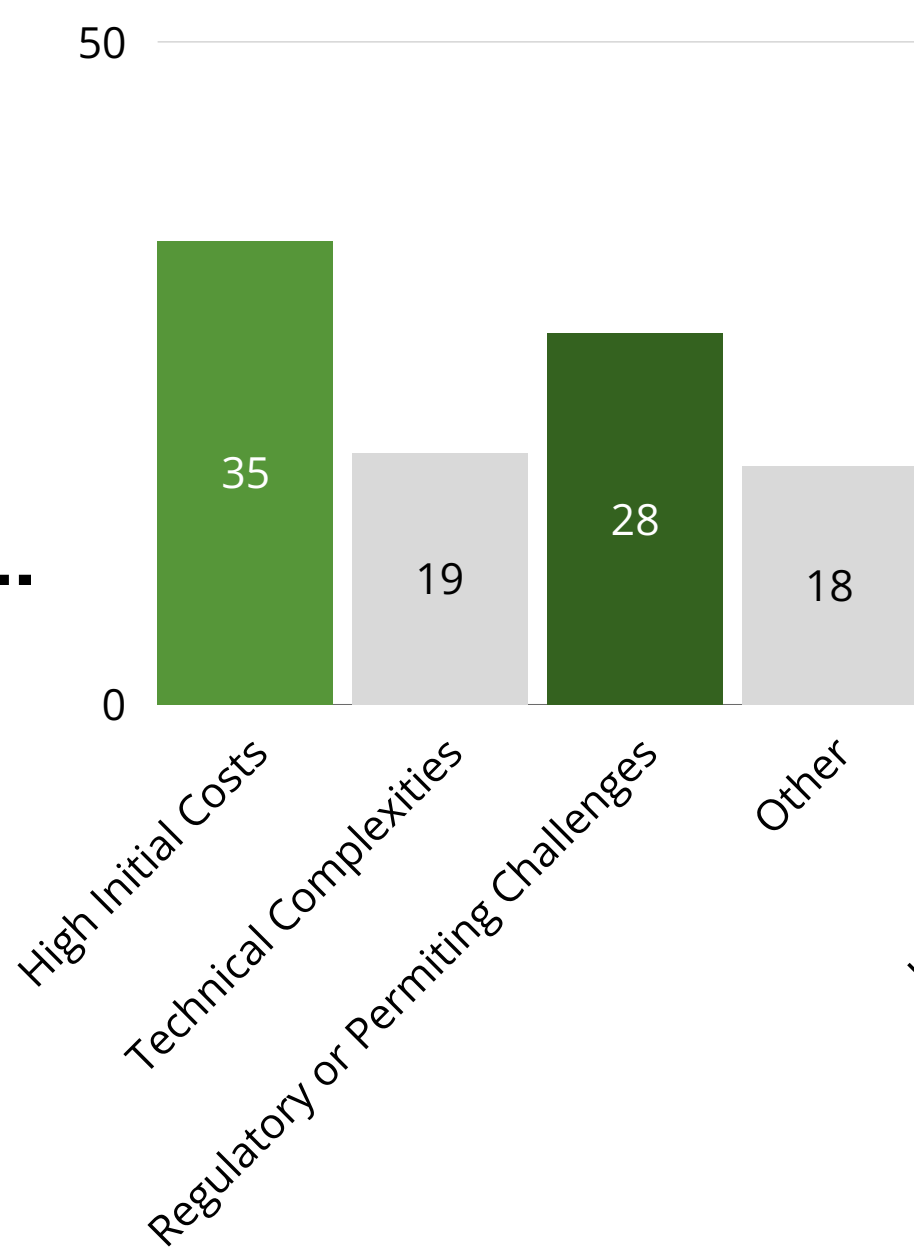
Only 38% have implemented RE systems - and those use solar panels exclusively.



CHALLENGES

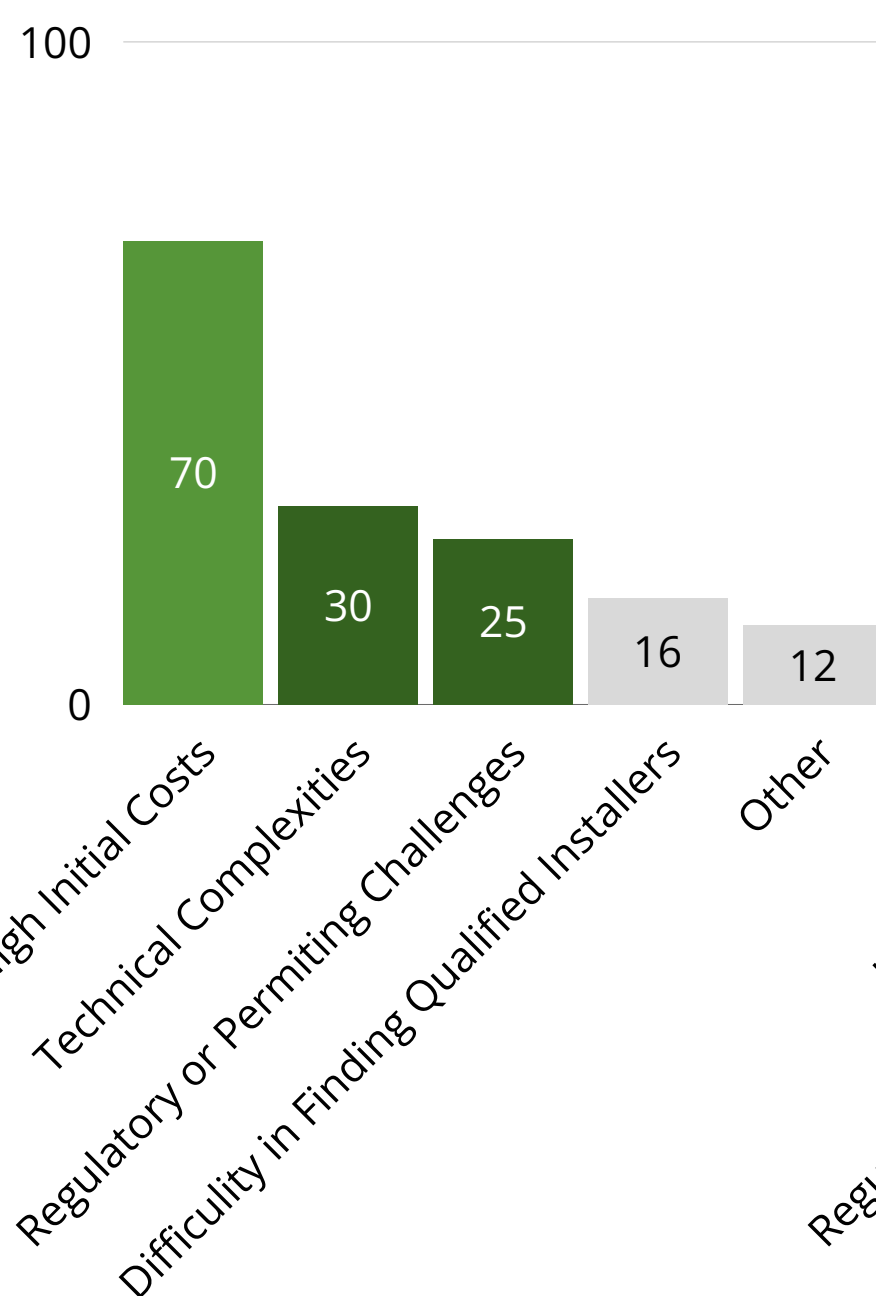
GERMANY

High installation costs (35%), complex regulations (28%), and technical challenges (19%) are key barriers. German farmers seek increased financial support and streamlined procedures. Sources of RE information include internet searches, peer exchanges, and expert consultations. Approximately 49% believe government incentives are beneficial, though many remain critical of existing support due to administrative complexity.



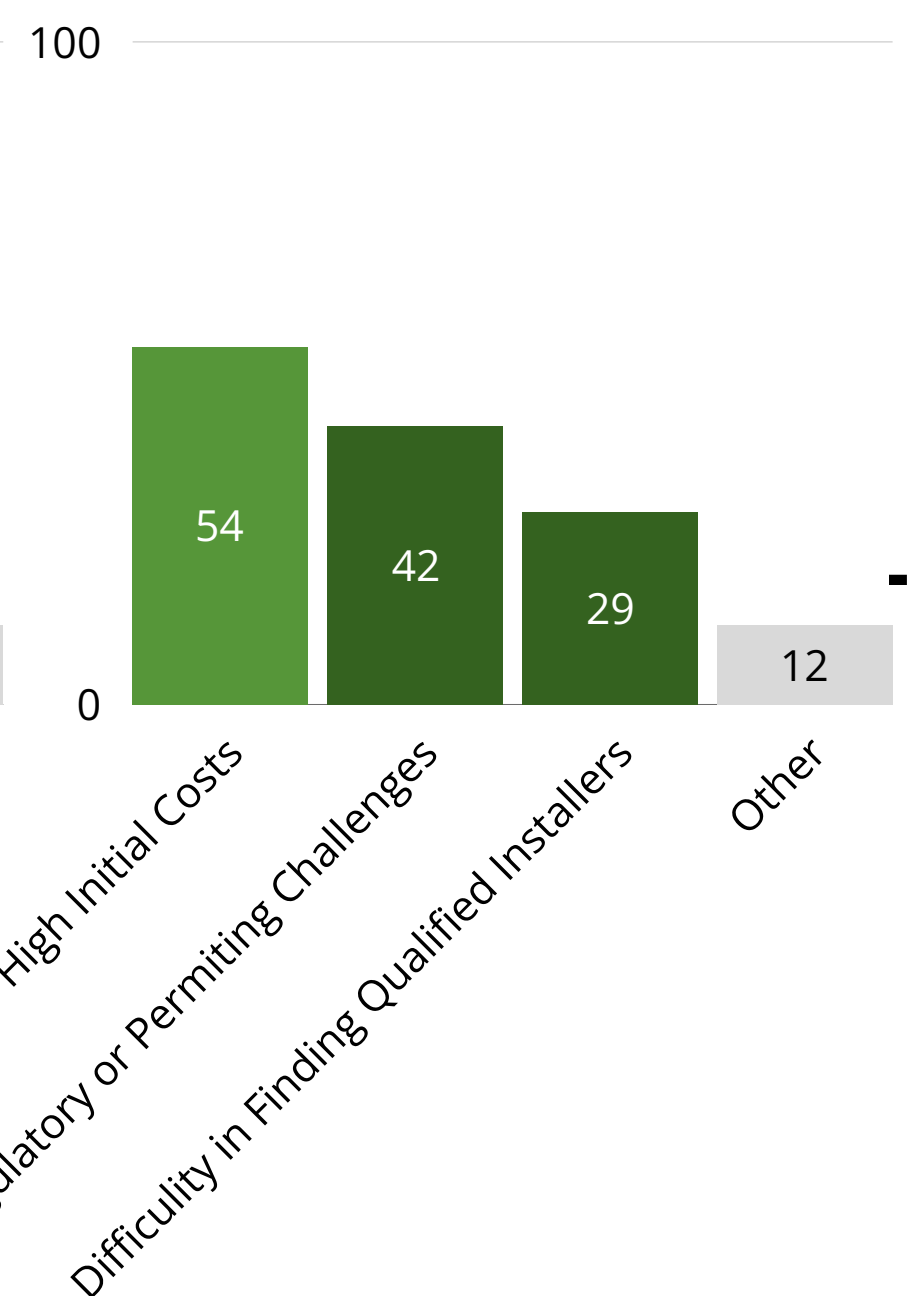
POLAND

High initial costs, regulatory and technical barriers hinder wider adoption. Only 55% feel current government incentives effectively influence their decisions, and there is a need for clearer, reliable information and expert consultations. Other notable challenges included long and complex application processes (33%) and difficulty in accessing government support (28%).



LITHUANIA

Major obstacles include regulatory challenges (59%) and high initial costs (32%). Farmers without RE cite high investment costs (55%) and insufficient incentives (46%). Although 71% are aware of government support, only 45% feel these programs positively impact their decisions. They call for enhanced financial support, permit assistance, and improved access to reliable information.



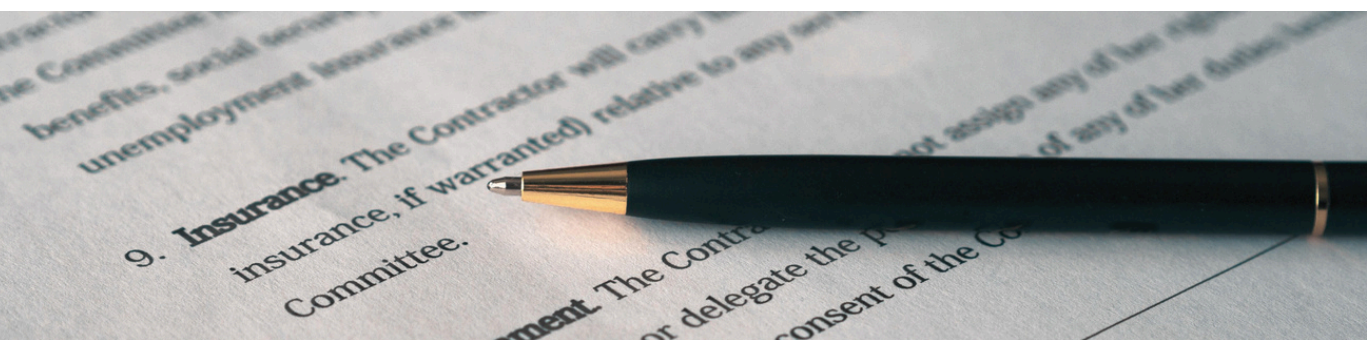
INSIGHTS

Across the South Baltic region, solar energy remains the most accessible and widely adopted RE technology. Despite some differences - Poland and Lithuania being at earlier stages with smaller-scale operations and Germany benefiting from established, large-scale infrastructure - common challenges include:



➤➤➤ FINANCIAL BARRIERS

High initial costs are a recurring obstacle.



➤➤➤ REGULATORY HURDLES

Complex and non-transparent procedures slow down Renewable Energy integration.



➤➤➤ INFORMATION GAPS

Farmers require clearer, reliable information and better access to expert advice.

CONCLUSION

Enhanced communication, streamlined regulations, and increased financial incentives are essential to further boost RE uptake in agriculture. Coordinated stakeholder efforts - from energy suppliers and financial institutions to NGOs and policymakers - are critical for promoting sustainable development and achieving greater energy self-sufficiency in the region.



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