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Sustainable Tourism and Mobility in Rural Areas: Environmentally- Friendly Transportation Options

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Rural Tourism Profile in Lithuania

- **Key attractions:** National parks, natural landscapes
- **Visitor demographics:** Domestic families + tourists from Latvia, Poland, Germany
- **Seasonality:** Summer – peak for water/cultural festivals; Autumn – foraging; Winter – sauna; Spring – Easter & nature trips



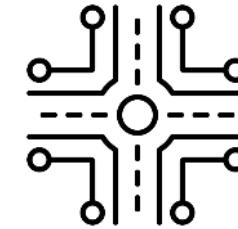
Mobility Challenges in Rural Areas



Limited public transportation
infrequent bus/rail services



High car dependency
over 80% of trips in
rural areas made by
car



Poor infrastructure
narrow/poorly
maintained roads, weak
signage, lack of cycling
paths

Eco-Friendly Transport Options

- **Cycling & hiking routes in national parks**
- **Expanded EV charging infrastructure**
- **Walking trails integrated into cultural/slow tourism circuits**

Innovative Project: National Cycle Tourism Network (NCTN)



Long-distance cycling routes linking cities, rural areas, UNESCO heritage sites



Digital tools: apps, maps, real-time tourism & transport info



Integrated with EuroVelo 10 & 11 routes



Supports EU sustainability & slow tourism principles



Barriers to Sustainable Mobility



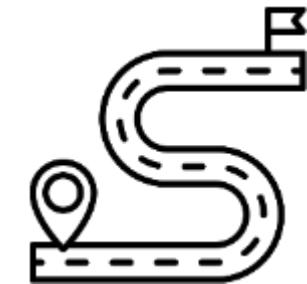
Financial

high costs for
cycling routes, EV
stations, and shuttle
services



Cultural

deep-rooted car
dependency among
locals and tourists



Logistical

weak public transport,
fragmented cycling
networks, poor last-
mile connections

Local Business Involvement

- **Partnerships:** homesteads and guesthouses promote cycling & eco-tourism
- **Eco-Friendly Incentive:** Green Certificate program
- **Electric Mobility:** Some larger resorts provide EV charging points
- **Community engagement:** Businesses as sustainability ambassadors – guiding tourists toward eco-friendly practices

NCTN: A Successful Community-Led Project

Factors of Effectiveness:

- ✓ Community Involvement and ownership
- ✓ Integration of Mobility and Cultural Tourism
- ✓ Digital and Service innovation
- ✓ Environmental and Economic sustainability
- ✓ Multi-Stakeholder cooperation

Mobility Exclusion Issues

PROBLEM

- Lack of accessible transportation for the elderly population
- Limited transportation affordability for low-income households
- Mobility exclusion for youth and non-drivers



IMPROVEMENT

- An expansion of on-demand shuttle services and barrier-free walking routes
- Affordable and frequent public transport connections and bike-sharing schemes
- Cycling networks connected to bus and railway stations

Cultural Tourism and Mobility Demands

Festivals = seasonal mobility surges

Heritage sites = year-round demand



Rural gastronomy & crafts = car reliance

Responses: shuttle buses, ride-sharing, walking & cycling cultural routes.

Case Study: Hill of Crosses

Unique cultural site with over 100,000 crosses – symbol of faith & resilience. Located 12 kilometers from Šiauliai city

Accessibility challenges

- Limited Public Transportation
- High car reliance

Proposed Solutions

- Shuttle busses from Šiauliai
- Cycling paths



Seasonal Trends & Solutions

Summer

Issues: Coastal overcrowding in Curonian Spit & Palanga → congestion, emissions, parking issues.

Solutions:

Introduction of seasonal shuttle services,
Expansion of ferry frequency
Park and ride systems

Winter

Issues: Reduced tourism and public transportation cuts → rural isolation

Solutions

Development of on-demand transport services
Promotion of winter tourism products
Digital tools for ride-sharing

Policy Frameworks

Supportive Policies:

- Transport Development Program 2021-2030
- Tourism Development Guidelines 2020–2030

Challenges:

- Car-centric infrastructure investment
- Fragmented local transport planning



Ideas for Other Rural Areas

- Integrating cultural heritage with sustainable mobility
- Community-led tourism initiatives
- Managing seasonality through diversification
- Leveraging digital innovation for rural mobility

Sustainable Transport Impact Measures

Environmental

- Carbon emissions from transport
- Air quality indicators
- Modal shift statistics

Tourism and Economic impact

- Visitor flows and seasonality
- Tourism expenditure linked to mobility

Digital and innovation

- Use of digital mobility platforms
- Smart infrastructure monitoring

EU Synergies – Lithuania & BETI

- **BETI (Erasmus+ TRAVEL):** sustainability in schools, teacher training, virtual field trips.
- **Other EU projects:** digital innovation & rural development.
- **Interreg BSR:** cross-border cycling routes, coastal transport, best practices.
- **Outcomes:** capacity building, digital tools, infrastructure upgrades, policy alignment.
- EU cooperation drives innovation, education & sustainable rural mobility.

GreenMove & EU Projects

- **Shared Data:** common platform, standardized metrics, link to tourism
- **Pilots:** integrated ticketing, digital tools, real-world trials.
- **Policy:** align EU/local strategies, support small-scale pilots.
- **Education:** use TRAVEL virtual trips, eco-awareness campaigns.
- **Cross-Border:** share best practices, sustain cooperation post-project.

Thank you for your attention!

Dr. Danguole Rutkauskiene

