Romanian Journal of Regional Science
Vol. 20, No. 1, Summer 2026

DOI: https://doi.org/10.61225/rjrs.2026.05

DRIVERS OF LOCAL SUSTAINABLE DEVELOPMENT AND PATHWAYS TOWARDS EFFECTIVE IMPLEMENTATION: A COMPARATIVE CASE STUDY OF HARGHITA, COVASNA AND MUREȘ COUNTIES OF ROMANIA

Krisztián Ritter[a], Orsolya Varga [b,*]

[a] Hungarian University of Agriculture and Life Sciences, Institute of Rural Development and Sustainable Economy, Department of Rural- and Regional Development, Gödöllő, Hungary

[b] Hungarian University of Agriculture and Life Sciences, Doctoral School of Economics and Regional Sciences, Gödöllő, Hungary

* Corresponding author

Address: MATE 2100 Gödöllő, Páter Károly str. 1. Hungary

E-mail: vvorsika@gmail.com

Biographical Notes

Krisztián Ritter is an associate professor of the Institute of Rural Development and Sustainable Economy, and member of the Doctoral School Council of the Doctoral School of Economics and Regional Sciences, Hungarian University of Agriculture and Life Sciences Gödöllő, Hungary. He is member of the Committee for Regional Sciences, Hungarian Academy of Sciences and member of the European Regional Science Association (ERSA). His research interests include regional and rural development in general, the role of agriculture in rural economy, social economy and local economic development. ORCID ID: https://orcid.org/0000-0003-1206-3159

Orsolya Varga is a PhD student at the Hungarian University of Agriculture and Life Sciences, Doctoral School of Economics and Regional Sciences, Gödöllő, Hungary. Her research interests include the examination of regional sciences, as well as territorial and regional inequalities in Romania. ORCID ID: https://orcid.org/0009-0004-9684-7181

Abstract

The study undertakes a comparative analysis of the 2021–2030 development strategies of Harghita, Covasna, and Mureș counties, focusing on the structure, objectives, implementation, and monitoring mechanisms of the strategic documents. The research is based on a qualitative document analysis, with particular attention to the integration of sustainable development principles into county-level planning. The findings highlight the distinct social and economic characteristics and development priorities of the three counties, which reflect their adaptation to both local specificities and the European Union's policy frameworks. Harghita County's decentralized and community-based approach, Covasna County's exemplary monitoring system, and Mureș County's innovation- and project-oriented strategy collectively illustrate the region's diversity. Among the common development needs, the digital transition, infrastructure improvements, human capital retention, and the strengthening of territorial cohesion are particularly emphasized. The study underscores the importance of strategic flexibility, indicator-based monitoring, and institutional cooperation, while also providing recommendations for enhancing regional planning practices. The research contributes to a deeper understanding and advancement of sustainable and complementary regional development approaches.

Keywords: sustainability, development strategies, regional development, territorial cohesion
JEL Classification: Q56, Q01, R00, R10, R58

1. Introduction

Sustainable development has become one of the most significant strategic challenges of our time, particularly for the European Union and its member states, where territorial cohesion, ecological balance, and the mitigation of economic and social inequalities require both coordinated and targeted interventions. Development strategies represent the primary framework for addressing these complex challenges and have gradually evolved over recent years into more structured and multidimensional instruments. At the regional level, key actors in this process are the regions and counties - especially those characterized by diverse social, economic, and geographical conditions.

The present study aims to conduct a comparative analysis of the development strategies of Harghita, Covasna, and Mureș counties. The analysis does not yet extend to evaluating the direct effectiveness of the strategies' practical implementation; rather, it focuses on the internal structure of the strategies, the coherence of objectives and intervention areas, and the institutional and methodological frameworks for implementation, monitoring, and evaluation. Particular attention is devoted to governance models, partnership mechanisms, and the quality of strategic flexibility and indicator-based monitoring. This research builds upon our previous study, in which multivariate statistical methods - factor analysis and cluster analysis - were employed to explore territorial disparities at Romania's NUTS 3 level (Ritter and Varga, 2025). The results indicated that Harghita and Covasna counties belong to the category of moderately developed areas, while Mureș County is part of the cluster characterized by diversified development. These typological classifications justify

the separate examination of the three counties' development documents, as they belong to the same region but differ significantly in their levels of development, socio-economic characteristics, and territorial challenges. The development strategies of these counties illustrate how European Union guidelines are implemented within distinct social and economic contexts, as also confirmed by our earlier findings. Harghita County adopts a decentralized strategy based on broad stakeholder participation; Covasna County applies a well-designed and exemplary monitoring system; while Mureș County's professional, project-based approach focuses on medium-term economic rationality. Analyzing these differences contributes to a better understanding of the comparability of regional strategies and to the identification of transferable best practices.

The analysis underlying this study is based on the most recent development documents of the three counties: the long-term strategies for 2020–2030 and 2021–2030 in the cases of Harghita and Covasna, respectively, and the medium-term development plan for 2021–2027 in the case of Mureș County. These documents were examined with particular attention to their coherence with Romania's national legislative framework and the European Union's policy guidelines. The research methodology relies on qualitative document analysis, which allows for a detailed comparison of content structures, institutional roles, and indicator systems. The aim of the study is not merely to analyze the three counties' development strategies, but also to identify the institutional, structural, and substantive factors that influence the implementation of sustainable development principles at the county level. Special attention is given to the extent to which the objectives, interventions, and measurement tools articulated in these documents align with the European Union's strategic frameworks - particularly the EU Sustainable Development Strategy and the 2030 Agenda for Sustainable Development - and how they reflect local specificities and development needs. The similarities and differences revealed through this analysis not only facilitate a professional dialogue between the strategic documents but also provide a foundation for the further conceptual and methodological enhancement of future planning cycles. Furthermore, the study highlights several structural challenges that may constrain the practical implementation of sustainable development, especially in relation to measurement systems, indicator use, partnership mechanisms, and strategic flexibility.

The underlying premise of this study is that sustainable development strategies can be understood not only as policy instruments but also as reflective frameworks that reveal the extent to which the principles of sustainability have been internalized at the levels of political decision-making, territorial governance, and social participation. The comparative examination of the three counties' strategies - considering their different levels of development, geographical positions, and institutional

capacities - provides an opportunity to gain a nuanced understanding of the regional practice of sustainable planning in contemporary Romania.

2. Literature review

In examining development strategies, particular emphasis is placed on identifying how NUTS-level territorial units - regions and counties - are able to adapt theoretically established strategic principles to their specific social and economic realities. Development strategies, as instruments of planning and governance, reflect not only the development policy orientation of a given territory but also the methodological and institutional framework through which sustainability is conceptualized and implemented. In this context, the focus extends beyond the mobilization of local resources to include the extent to which regional strategies align with the broader European frameworks of sustainability and resilience. Ciucu and Păuna (2025) point out that there are significant differences among EU member states in the practical implementation of sustainability and resilience, which clearly illustrates the European-level constraints shaping the scope of local and regional strategies. Similarly, Kruse et al. (2025) emphasize that smart specialization represents a key instrument for enhancing regional resilience and cohesion, while also facilitating adaptation to the green and digital transitions.

In recent years, the literature on rural development has increasingly emphasized theoretical approaches that focus on the valorization of local resources. At the center of this perspective lies the theory of endogenous development, which argues that the effectiveness and sustainability of regional development primarily depend on internal potentials - such as natural endowments, human resources, and social and cultural capital (Bodnár, 2020; Dinya, 2013; Horváthné, 2021; Káposzta, 2014). However, recent theoretical findings (e.g., Coradini Nader Adam et al., 2025) highlight that endogenous development cannot be understood without examining institutional change, as the transformation of formal and informal institutions fundamentally influences the mobilization of local resources and the developmental trajectories of regions. Endogenous development does not merely aim at economic growth, but rather defines a complex, multidimensional development path in which social cohesion based on local values and the strengthening of communities play a central role. This view is further supported by Vázquez-Barquero and Rodríguez-Cohard (2016), who emphasize the role of institutions in the success of local development initiatives, and by Navarro-Valverde et al. (2022), who, in their studies of rural projects, demonstrated how innovation and community participation contribute to social cohesion and the preservation of communal resources.

Regional planning plays a central role in promoting economic development, social cohesion, and environmental sustainability, as it enables the efficient and targeted use of territorial resources (Glasson and Marshall, 2007; Skelcher, 2025). This approach supports informed decision-making at

both local and regional levels and facilitates the management of complex challenges, such as peripheral locations, demographic changes, and shortcomings in economic diversification (Christofakis et al., 2024). Over the past decades, alongside the growing importance of planning, the methodological toolkit has undergone significant development, particularly to advance sustainable development and territorial cohesion (Medeiros et al., 2023; Veckalne and Tambovceva, 2023). The methodological foundations of regional planning include multidimensional analysis, participatory planning, and the integration of sustainability considerations (Healey, 2020; Keating, 1998; Colglazier, 2015). Multidimensional analysis enables a deeper understanding of the complex characteristics and dynamics of territories, while participatory planning ensures the active involvement of local communities in decision-making. Sustainability-focused approaches further contribute to the achievement of long-term social and environmental objectives (Faludi, 2010). The effectiveness of regional planning largely depends on the quality of the applied methodological tools and approaches. According to recent research and practical experience, successful regional development strategies employ integrated approaches capable of responding to rapidly changing economic and social environments, while taking local specificities and needs into account (Abisoye and Akerele, 2022; Horváthné et al., 2022; Kulkov et al., 2024; Lu, 2024).

The development strategies, building on the aforementioned theoretical foundations, are not merely systems of objectives but comprehensive policy documents that define a vision for the future, key intervention areas, and the institutional as well as resource-based conditions necessary for implementation. Strategy, as a complex concept, can be understood - according to Balaton et al. (2007) - as a coherent system of decisions and intentions that integrates objectives, resource allocation mechanisms, and procedural frameworks. Strategic management is particularly relevant in rural regions, as these areas often face structural challenges such as peripheral location, infrastructural deficiencies, or low levels of economic diversification (Gál-Pásztor, 2024). One of the key elements in addressing territorial disparities is the strengthening of cohesion, which requires an in-depth understanding of the social and economic characteristics of the territories concerned. The success of local development initiatives largely depends on the quality of education, the entrepreneurial ecosystem, and the functioning of public administration, as these represent the fundamental pillars of the institutional background (Káposzta, 2014; Dinya, 2013). Human capital and knowledge-based development are closely linked to Romer's (2009) theory, which distinguishes between two fundamental strategies of growth: the utilization of existing ideas and the generation of new ones as engines of economic progress. The increasing role of knowledge and innovation is also evident in rural development strategies, particularly in the fields of tourism and local entrepreneurship (Lempek-Tésits, 2021). Stern (2002) interprets development strategies at a global level but emphasizes that

effective development policy can only be achieved when local realities are considered and local communities are actively involved. When setting development goals, key considerations include the efficient management of limited resources and the appropriate prioritization of interventions - especially in rural areas facing structural and demographic challenges, where the manner in which EU and international funds are utilized significantly affects the efficiency of regional development (Chivu and Cramarenco, 2021). In Central and Eastern Europe, for instance, the selection of regional innovation and sustainability priorities, along with the effective use of resources, strongly shapes the development trajectories of rural territories and highlights the importance of regional specialization in promoting sustainable growth (Serbanica, 2018). Despite their often-peripheral position, rural environments possess unique resources whose activation can generate strategic advantages, particularly when regional strategies focus on economic diversification, the strengthening of social capital, and ecological sustainability (Bodnár, 2020; Gál-Pásztor, 2024). International studies further confirm that regional strategies can integrate multidimensional sustainability perspectives and can be adapted to diverse territorial contexts and innovation models (Ceapraz et al., 2021; Dentinho et al., 2021).

3. Method

Based on the key findings gained from literature review, this study employs a comparative qualitative document analysis to examine how county-level development strategies in Romania frame territorial endowments, define development priorities, and translate these into objectives, programs and implementation arrangements. The empirical corpus consists of three strategic planning documents formally adopted by the county councils:

1. Harghita County Development Strategy (2020–2030) – prepared by Planificatio Dezvoltare și Energie S.R.L. on behalf of the Harghita County Council;
2. Covasna County Integrated Development Strategy (2021–2030) – developed internally by the County Council following the POTSA planning framework;
3. Mureș County Development Plan (2021–2027) – drafted by SC EuroTop Consulting S.R.L. under the mandate of the County Council.

The unit of analysis is the strategy document; comparisons are performed at the level of (i) the diagnostic sections; (ii) the strategic objective architecture; and (iii) the governance, implementation and monitoring framework.

The analysis followed a two-stage protocol. First, a structural mapping was conducted to ensure comparability across documents with different planning horizons and formats. This stage examined: the internal document architecture; the hierarchy of objectives; intervention logic (programs/projects); implementation scheduling; monitoring/evaluation provisions; and risk-related

considerations where specified. Second, a thematic qualitative content analysis was performed using a pre-defined analytical grid. To enhance transparency, the investigated topics and sub-topics are listed below.

A. Territorial endowments and contextual conditions

- Geographical position and physical setting: spatial location, relief/geomorphology, hydrography, climatic features.
- Natural resources and environmental assets: forests, mineral resources, thermal/mineral waters, biodiversity and protected areas; resource-related constraints/risks.
- Demography and settlement structure: population size/density, age structure, ethnic composition, urban-rural balance, settlement hierarchy and dispersion patterns.
- Social and healthcare profile: healthcare infrastructure and human resources; social assistance and vulnerability indicators; ageing-related pressures.
- Transport and accessibility: road/rail infrastructure, network density, corridor roles; presence/absence of high-speed road and air transport; accessibility bottlenecks.
- Economic structure and competitiveness: GDP/GVA and per capita measures, sectoral composition, labor productivity, investment activity, R&D/innovation references.
- Agriculture: land-use structure (arable/pasture/meadow), crop specialization, livestock profile, mechanization indicators.
- Tourism: accommodation capacity, visitor flows and overnight stays, tourism specialization and spatial concentration.

B. Strategic diagnosis tools embedded in the strategies

- SWOT assessments: content emphases, internal/external factor structure, and the extent to which SWOT statements are operationalized into objectives and measures.
- Supplementary diagnostic devices where present: trend statements, benchmarking/indicator frameworks, and evidence claims used to justify priorities.

C. Strategic architecture and priority setting

- Vision and overarching development narrative.
- Objective hierarchy: general and specific objectives, intervention axes, programs and project typologies.
- Cross-cutting priorities: sustainability/green transition, digitalization, social inclusion, territorial cohesion.
- Territorial targeting: polycentric development, rural-urban linkages, peripheral/rural area focus, inter-municipal/micro-regional cooperation.

D. Implementation, governance, and monitoring design

- Implementation model: responsible units, coordination arrangements, partnership patterns (public-private, civil society, inter-institutional cooperation).
- Action planning and flexibility: annual/modular planning, update mechanisms, project pipeline logic.
- Monitoring and evaluation: indicator type (output/outcome/impact), reporting frequency, institutional responsibility, feedback mechanisms; risk management provisions where specified.

Where the strategies reported quantitative indicators or referenced official statistics, selected measures were extracted and standardized (e.g., per capita; per 1,000 inhabitants; per 100 km²) to support cross-county comparability in the diagnostic domains (demography, healthcare/social indicators, transport infrastructure, agriculture, tourism, and macroeconomic aggregates). Quantitative evidence was used descriptively to contextualize and triangulate the qualitative interpretation of strategic emphases.

Given that strategy documents reflect both evidence and policy choice, the analysis captures articulated development priorities and governance design, not the ex-post effectiveness of implementation. Differences in planning horizons (2020–2030; 2021–2030; 2021–2027) are treated as a comparative feature of Romania's decentralized planning practice rather than as a methodological limitation; the focus is therefore placed on structural logic, thematic priorities, and implementation/monitoring arrangements.

Prior to the analysis, it was hypothesized that, despite differences in planning horizon and document architecture, the three county strategies would display partial convergence in core development priorities, reflecting shared regional challenges and EU/national policy frameworks. At the same time, territorial endowments and county-specific institutional planning practices were expected to generate systematic divergence in the emphasis and sequencing of thematic areas, as well as in the design of implementation, monitoring and evaluation arrangements.

4. Results and Discussion

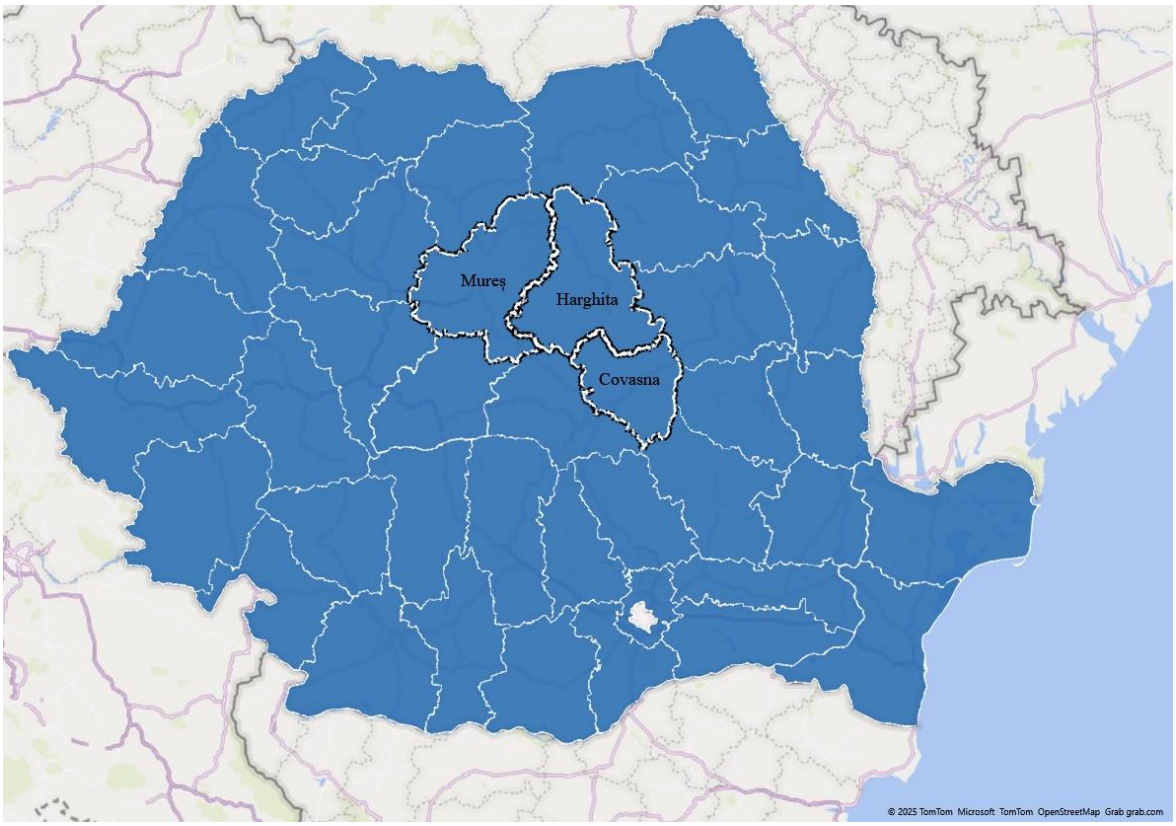
A comparative reading of the medium- and long-term development strategies of the three Székely counties (Harghita, Covasna and Mureș) indicates a shared place-based, endogenous development orientation: development objectives are grounded in local needs and assets while remaining consistent with national and EU strategic frameworks. Harghita's County Development Strategy 2020–2030 prioritizes human-centered development, focusing on employment creation, improved public service quality and sustainable resource management, supported by participatory planning and inter-institutional cooperation. Covasna's Integrated Development Strategy 2021–2030 similarly builds on stakeholder co-production, translating local realities into a coherent intervention logic (vision,

strategic objectives, intervention axes and programs) that strengthens implement ability and traceability. Mureș's County Development Plan 2021–2027 addresses economic, social and infrastructural challenges through an innovation-led agenda, emphasizing digitalization and the green economy, while explicitly targeting territorial disparities, particularly disadvantages affecting rural areas. Overall, the three documents converge on the integrated mobilization of natural, social and cultural capital to enhance territorial cohesion, improve adaptive capacity and foster economic diversification.

The geographical location of Harghita, Covasna, and Mureș Counties

Territorial development strategies can only be compared meaningfully by considering counties' geographic and geomorphological contexts. Spatial position is not merely a physical setting; it shapes economic opportunities, ecological potential, infrastructure capacity, and broader socio-spatial trajectories (Takano et al., 2018). Accordingly, the location and natural endowments of Harghita, Covasna, and Mureș are closely reflected in the priorities set out in their strategic documents (Figure 1).

Figure 1. The location of Harghita, Covasna, and Mureș counties within Romania, 2025



Source: own processing, 2025

Harghita County is situated in eastern Romania, along the central sector of the Eastern Carpathians and the margin of the Transylvanian Plateau. Its relief is predominantly of volcanic origin, reflected in the Călimani, Gurghiu and Harghita mountain ranges, and further structured by an

alternation of extensive forested areas and valley systems. From a hydrogeographical perspective, the county is notable as the source area of two major rivers, the Mureș and the Olt, which organize the local drainage network and support ecosystems, habitats and agricultural landscapes (source: based on data from the analyzed development strategies).

Covasna County lies on the eastern edge of the inner Carpathian Basin, in contact with the arcuate structure of the Eastern Carpathians. Its topography is shaped by the Baraolt Mountains, the Southern Harghita Mountains and the Háromszék Mountains, generating a diversified geomorphological setting. Thermal waters and mineral springs represent key hydrogeological resources, historically significant and currently associated with development opportunities, particularly in tourism and related services (source: based on data from the analyzed development strategies).

Mureș County is located in the central part of the Transylvanian Plateau, structured around the Mureș River valley. The county's physical geography is defined by valley corridors and adjacent hilly-to-mountainous areas, especially in the Călimani and Gurghiu Mountains. The Mureș River functions as the principal hydrographic axis, underpinning water-management operations, agricultural irrigation and the maintenance of the regional ecological network (source: based on data from the analyzed development strategies).

Natural resources of Harghita, Covasna, and Mureș Counties

The diverse natural resource base of Harghita, Covasna and Mureș counties underpins regional ecological stability and development potential. Forests, mineral resources, therapeutic and mineral waters, and high-biodiversity habitats constitute strategic natural capital for sustainable management and tourism.

Harghita County has substantial natural resources and high ecological diversity, which strongly influence its environmental conditions and development trajectories. Forestry is a core sector, centered on the utilization and processing of coniferous stands. The subsurface resource base includes kaolin (Băile Harghita), as well as basalt and lignite (formerly also rock salt from Praid, one of Romania's most important salt deposits, though recent natural disasters have rendered extraction impossible). The county also hosts over 2,000 mineral springs, providing a key asset for balneological and health-related services. Biodiversity reflects the altitudinal zoning of mountain habitats: mixed deciduous forests dominate the 800–1200 m belt, while coniferous forests prevail between 1200–1500 m; subalpine communities include Festuca supina, Juniperus sibirica and Leontopodium alpinum. Faunal assemblages are characterized by large mammals (brown bear, wolf, Carpathian deer), while mountain streams support species such as brown trout (Salmo trutta fario) and bullhead (Cottus gobio). The hydrographic system is complemented by Lake Saint Anna, a precipitation-fed

volcanic crater lake of high ecological and tourism relevance. Climatically, Harghita belongs to the Transylvanian Basin zone, with generally cool, humid conditions and mean annual temperatures around 7–8°C, shaping both ecosystem processes and key activities including forestry, agriculture and tourism (source: based on data from the analyzed development strategies).

Covasna County's economy is strongly tied to its natural endowments, most notably thermal and mineral waters that underpin health tourism. Its mofettas and mineral baths are widely recognized for therapeutic applications, particularly in cardiovascular treatments. Forestry remains another key sector, while industrial minerals (e.g., lignite, marble and clay) support local manufacturing activities. The county's natural environment is structured by the Olt River valley and a dense network of mountain streams and springs. Forest cover is dominated by beech and sessile oak at higher elevations, with riparian willow and alder in wetter habitats; these ecosystems sustain large mammals such as brown bear and red deer. Hydrographically, the Olt and the Black River (Râul Negru) form the main axes, complemented by artificial lakes (e.g., Besenyő and Réty) that expand recreation and angling functions. Climatically, Covasna is moderately continental but comparatively cool and humid, with cold winters and relatively warm summers (source: based on data from the analyzed development strategies).

Mureș County has a diversified economy in which agriculture and industry are similarly important; key branches include metallurgy and construction. Its resource base - extensive forests, mineral springs, natural gas and salt - supports resource-oriented development strategies. Vegetation displays clear altitudinal differentiation: coniferous and mixed forests (notably spruce and beech) dominate mountainous areas, while oak and hornbeam are typical of lower, warmer zones; humid habitats (marshes and wetlands) further diversify the landscape. Faunal assemblages include large mammals such as brown bear, Carpathian deer and lynx, alongside aquatic species including bullhead (Cottus gobio) and Petényi's barbel (Barbus petenyi). Hydrologically, the county is structured around its major river systems - particularly the Mureș, which provides critical water-supply and corridor functions - while the Serches reservoir adds local water-storage and recreational capacity. The climate is moderately continental, with pronounced spatial variability driven by relief and hydrography: higher elevations are cooler, whereas valley areas frequently record summer temperatures above 30°C, shaping both ecosystem processes and the territorial organization of economic activities (source: based on data from the analyzed development strategies).

Demographic and social profile of Harghita, Covasna, and Mureș Counties

Harghita, Covasna and Mureș counties (three Transylvanian units) display partly comparable but also markedly different socio-demographic profiles. The 2021 census indicates variation in population

density, ethnic composition, age structure and urbanization (Table 1), which may translate into differentiated regional development prospects.

Table 1. Demographic and social profile indicators in the examined counties, 2021

Attribute	Harghita	Covasna	Mureș
County seat (resident population)	Miercurea Ciuc (34484 inhabitants)	Sfântu Gheorghe (56006 inhabitants)	Târgu Mureș (134290 inhabitants)
Area (km²)	6639	3710	6714
Population (inhabitants)	291950	187177	518 000
Population density (inhabitants/km²)	43	50	77
Share of population aged 0–14 (%)	15,6	15,4	15,2
Share of population aged 15–64 (%)	65,4	64,1	64,0
Share of population aged 65 and over (%)	19,0	20,5	20,8
Aging index (65+/0–14)	121,8	133,1	136,8
Share of Hungarian population (%)	85,2	73,6	37,8
Share of Romanian population (%)	12,2	23,1	53,3
Share of Roma population (%)	1,6	3,0	8,5
Share of tertiary-educated population (%)	9,6	9,8	14,2
Share of secondary-educated population (%)	50,2	51,1	48,5
Share with up to 8 years of schooling (%)	36,3	36,1	33,5
Number of urban and rural settlements	4 municipalities, 5 towns, 58 communes	2 municipalities, 3 towns, 40 communes	4 municipalities, 7 towns, 91 communes
Secondary cities (population >20,000)	Odorheiu Secuiesc (31335 inhabitants)	None	Reghin (33281 inhabitants)
Small towns (population 10,000–20,000)	Gheorgheni, Toplița	Târgu Secuiesc, Covasna	Sighișoara, Târnăveni, Luduș
Type of rural settlements	Mountainous, dispersed villages; limited infrastructure; traditional economic structure	Hill and mountain villages with varied distribution; medium development level; tourism potential	Primarily hill and lowland villages; better infrastructure and more developed rural economy
Share of rural communities (%)	45	55	35
Economically active population (%)	44,7	43,9	47,2
Unemployment rate (%)	3,8	4,1	3,5
Level of urbanization	Low, rural characteristics	Medium, with strong rural presence	High, with more urbanized centers
Investment opportunities	Medium: tourism and agriculture development, presence of wood and furniture industries	Medium: tourism (thermal springs), modernization of agriculture, support for SMEs	High: industrial and commercial centers, developed infrastructure, agriculture, and tourism
Regional transport infrastructure	Limited, mountainous infrastructure	Under development, but limited transport connectivity	Excellent, well-developed transport network
Main economic sectors	Agriculture, wood industry, tourism	Agriculture, tourism	Industry, commerce, agriculture, tourism

Source: Own representation based on the data from the development strategies, 2025.

Mureș County has the largest population (518000 inhabitants), while Covasna is the least populous (187177). Population density is markedly higher in Mureș (77 inhabitants/km²) than in Harghita (43) and Covasna (50), indicating a stronger concentration of economic and social functions and, in general, better access to public services. Age structures are broadly comparable across the three counties: the share of the 0-14 cohort is around 15%, while the proportion of residents aged 65+ ranges from 19,0% in Harghita to 20,8% in Mureș. In line with this, the ageing index is lowest in Harghita (121,8), suggesting a somewhat less intense ageing challenge relative to the other two counties. Ethnic composition shows pronounced territorial contrasts. Harghita and Covasna are characterized by a Hungarian majority (85,2% and 73,6%, respectively), whereas Mureș is Romanian-majority (53,3%) and simultaneously hosts a substantial Hungarian minority (37,8%). This composition is likely to translate into multilingual practices and differentiated policy needs, particularly in education and public administration. The Roma population share is highest in Mureș (8,5%), pointing to a potentially stronger demand for targeted social inclusion and labor-market integration measures. Educational attainment further differentiates the counties. Mureș records the highest proportion of tertiary-educated residents (14,2%), while Harghita and Covasna remain below 10%. Conversely, the share of the population with no more than eight years of schooling exceeds 36% in Harghita and Covasna, compared with 33,5% in Mureș. These patterns are consistent with the expectation that higher educational attainment tends to co-occur with greater sectoral diversification and higher levels of urbanization. Settlement structure and urbanization also diverge. Mureș is the most urbanized county, with four municipalities, seven towns and 91 communes, while Covasna is less urbanized (45 settlements in total) and displays the highest rural share (55%). In Harghita, dispersed settlement patterns combined with mountainous terrain may constrain infrastructure development and service provision. Reflecting these structural conditions, rural economies in Harghita and Covasna tend to align more strongly with traditional agriculture and tourism-oriented activities, whereas Mureș appears more integrated and functionally diversified. Labor-market indicators suggest relative stability: the economically active population share is highest in Mureș (47,2%) and lowest in Covasna (43,9%), while unemployment remains low across all three counties (3,5-4,1%). Nevertheless, factors such as outmigration and hidden unemployment may still affect these aggregates and merit further analysis. In transport and accessibility, Mureș stands out with a comparatively developed network, which can facilitate mobility and investment attraction; Harghita and Covasna face more evident infrastructure gaps, especially in mountainous areas. Overall, Mureș appears to offer broader development potential in industry, commerce and agriculture, supported by higher density, urbanization, education levels and infrastructure. By contrast, Harghita and Covasna

(given their smaller urban centers and distinct ethno-cultural profiles) may be better positioned for sustainable, locally embedded development pathways, particularly in tourism, local production, crafts and agri-food activities.

Healthcare and social conditions in Harghita, Covasna, and Mureș Counties

The quality and accessibility of healthcare and social infrastructure are key determinants of regional well-being, and significant inter-county disparities in service provision exist (Table 2).

Table 2. Data reflecting the healthcare and social profile in the studied counties, 2022

Attribute	Harghita		Covasna		Mureș	
	(units)	(units per 1000 inhabitants)	(units)	(units per 1000 inhabitants)	(units)	(units per 1000 inhabitants)
Number of hospitals / hospitals per 1000 inhabitants	6	0,021	3	0,016	10	0,019
Number of specialized outpatient clinics / specialized outpatient clinics per 1000 inhabitants	7	0,024	4	0,021	9	0,017
Number of general practitioners' offices / general practitioners' offices per 1000 inhabitants	136	0,466	101	0,540	229	0,442
Number of dental offices / dental offices per 1000 inhabitants	84	0,288	54	0,288	174	0,336
Number of medical laboratories / medical laboratories per 1000 inhabitants	18	0,062	9	0,048	34	0,066
Number of pharmacies / pharmacies per 1000 inhabitants	93	0,319	68	0,363	168	0,324
Number of emergency care units / emergency care units per 1000 inhabitants	2	0,007	1	0,005	3	0,006
Number of ambulance stations / ambulance stations per 1000 inhabitants	6	0,021	2	0,011	6	0,012
Number of physicians / physicians per 1000 inhabitants	870	2,98	513	2,74	2412	4,66
Number of hospital beds / hospital beds per 1000 inhabitants	1944	6,66	1234	6,59	4311	8,32
Number of retirees / retirees per 1000 inhabitants	79084	267	47197	289	131699	276
Number of persons with disabilities / persons with disabilities per 1000 inhabitants	15741	53	9581	59	23431	49
Number of children under protective measures / children under protective measures per 1000 inhabitants	772	2,63	659	4,04	1539	3,21
Number of beneficiaries of childcare support and incentive allowances / beneficiaries per 1000 inhabitants	5968	20	3215	20	6030	13
Number of social assistance recipients / social assistance recipients per 1000 inhabitants	3758	13	3046	19	5480	11

Number of elderly cared for by local authorities / elderly per 1000 inhabitants	365	1,21	377	2,33	781	1,59
Average pension (RON)	1636		1631		1768	

Source: Own representation based on the data from the development strategies, 2025.

Harghita County records the highest ratios of hospitals and specialized clinics per 1000 inhabitants (0,021 and 0,024, respectively), indicating a comparatively strong institutional presence. It also shows a relatively high density of emergency care units and ambulance stations, which is plausibly related to mountainous terrain, dispersed settlements and accessibility constraints that require more extensive coverage. In primary care, Covasna County demonstrates the greatest coverage in terms of family physician offices (0,540 per 1000 inhabitants) and the highest pharmacy density (0,363), suggesting relatively direct, proximity-based access to basic health services. Mureș County, however, stands out in terms of medical capacity and human resources: the number of physicians per 1000 inhabitants (4,66) and hospital beds per 1000 inhabitants (8,32) are the highest among the three, consistent with its role as a regional healthcare hub serving both local and supra-local demand. These patterns point to a functional division in the healthcare system, where Mureș concentrates higher-level capacities, while Harghita and Covasna show stronger indicators in selected segments of territorial coverage. Social indicators further differentiate the counties. Average pensions are highest in Mureș County (1768 RON), whereas Harghita and Covasna report lower values (1636 and 1631 RON, respectively). Covasna County also displays higher ageing-related pressure (a higher number of retirees per 1000 inhabitants) and the largest shares of elderly individuals under municipal care, persons with disabilities (59 per 1000 inhabitants), children under protective measures (4 per 1000 inhabitants), and individuals receiving social assistance (19 per 1000 inhabitants), signaling elevated demand for social and care services. Childcare support is more prevalent in Harghita and Covasna Counties (20 per 1000 inhabitants) than in Mureș County (13 per 1000 inhabitants), potentially reflecting differences in demographic structure and/or program intensity. Overall, the indicators suggest a comparatively more developed healthcare capacity in Mureș, a relatively balanced profile in Harghita, and more pronounced structural social challenges in Covasna, supporting the case for targeted, place-sensitive policy interventions.

The state of transportation infrastructure in Harghita, Covasna, and Mureș Counties

Transport infrastructure development is a key determinant of regional economic potential, supporting mobility and improving living standards. Marked inter-county differences characterize transport infrastructure, largely shaped by topography and transport-geographical position. Mureș County holds the most advantageous profile, with the longest road network (2622 km) compared to Harghita (2492 km) and Covasna (1395 km). Road density values are relatively close (Mureș: 39,04 km/100 km²; Harghita: 37,53; Covasna: 37,61), yet Mureș and Covasna display substantially higher inter-

county road density (14,31 and 14,66) than Harghita (10,97). Mureș also shows stronger national-road provision (11,36) than Harghita (7,06) and Covasna (8,33). A key differentiator is high-speed connectivity: Mureș includes a 39 km section of the A3 motorway (0,58 km/100 km²), while Harghita and Covasna have no motorway access, constraining economic integration, freight efficiency and everyday mobility. In both latter counties, mountainous terrain limits expansion and upgrading; although main corridors (e.g., DN12, DN13A, DN15 in Harghita; DN11B, DN12 in Covasna) have regional relevance, capacity and technical standards often lag behind current demand. The empirical validation of these relationships is reflected in the indicators for Harghita, Covasna, and Mureș counties, as presented in Table 3.

Table 3. Data characterizing the transportation infrastructure profile in the analyzed counties, 2023

Attribute	Harghita	Covasna	Mureș
Total length of roads (km)	2492	1395	2622
Of which, inter-county roads (km)	728	544	961
Of which, national roads (km)	469	309	763
Motorways (km)	0	0	39
Road network density (km/100 km²)	37,53	37,61	39,04
Inter-county road network density (km/100 km²)	10,97	14,66	14,31
National road network density (km/100 km²)	7,06	8,33	11,36
Motorway density (km/100 km²)	0	0	0,58
Total length of railway lines (km)	229	115	432
Of which, non-electrified (km)	0	0	132
Railway network density (km/1000 km²)	34,5	31,0	64,3

Source: Own representation based on data from the National Institute of Statistics, 2025.

Rail infrastructure further reinforces Mureș County's advantage. It has the longest network (432 km, including 132 km non-electrified), while Harghita (229 km) and Covasna (115 km) operate fully electrified lines. Rail density in Mureș (64,3 km/1000 km²) is nearly double that of Harghita (34,5) and Covasna (31,0), supporting superior logistical performance; rail hubs around Târgu Mureș strengthen the county's connectivity within the national network. By contrast, relief constraints in Harghita and Covasna reduce the competitiveness of rail transport, especially for freight and inter-regional linkages. Air transport infrastructure is present only in Mureș County through Transilvania Airport (Târgu Mureș), providing regular domestic and international connections and improving external accessibility for business and tourism. The absence of comparable facilities in Harghita and Covasna limits their integration into wider economic networks and may reduce attractiveness for external capital and skilled labor. Overall, the indicators suggest a structurally and functionally more developed transport system in Mureș, a moderate profile in Harghita where improved high-speed access and continued rail modernization are strategic, and a comparatively constrained situation in

Covasna, where limited modern infrastructure (particularly the lack of motorways) remains a structural barrier to fully leveraging development potential.

Agricultural economic situation of Harghita, Covasna, and Mureș Counties

Agricultural structures across the three counties show pronounced spatial and functional differentiation, shaped by natural conditions, farming traditions, and technological levels. Land-use patterns (Table 4) indicate that some counties specialize in extensive livestock farming, while others prioritize arable crop production.

Table 4. Agricultural economic profile indicators in the examined counties, 2023

Attribute	Harghita		Covasna		Mureș	
	(ha)	(ha per 1000 inhabitants)	(ha)	(ha per 1000 inhabitants)	(ha)	(ha per 1000 inhabitants)
Agricultural land / Agricultural land per 1000 inhabitants	391335	1340,42	187243	1000,35	411131	793,69
Arable land / Arable land per 1000 inhabitants	78453	268,72	83449	445,83	221262	427,15
Pasture / Pasture per 1000 inhabitants	162739	557,42	61537	328,76	174152	336,20
Hay meadow / Hay meadow per 1000 inhabitants	139207	476,82	42582	227,50	63100	121,81
Orchard / Orchard per 1000 inhabitants	562	1,92	586	3,13	2377	4,59
Cereal-producing area / Cereal-producing area per 1000 inhabitants	11443	39,20	22460	119,99	29533	57,01
Potato cultivation / Potato cultivation per 1000 inhabitants	5448	18,66	14516	77,55	5124	9,89
Sugar beet / Sugar beet per 1000 inhabitants	105	0,36	1264	6,75	1303	2,52
Attribute	(units)	(units per 1000 inhabitants)	(units)	(units per 1000 inhabitants)	(units)	(units per 1000 inhabitants)
Cattle / Cattle per 1000 inhabitants	81002	277,45	45856	244,99	76204	147,11
Pigs / Pigs per 1000 inhabitants	28057	96,10	36322	194,05	75005	144,80
Sheep / Sheep per 1000 inhabitants	183302	627,85	182066	972,69	450121	868,96
Poultry / Poultry per 1000 inhabitants	478115	1637,66	567951	3034,30	1912263	3691,63
Tractors / Tractors per 1000 inhabitants	11389	39,01	6945	37,10	7572	14,62
Seeders / Seeders per 1000 inhabitants	747	2,56	1340	7,16	2803	5,41
Combine harvesters / Combine harvesters per 1,000 inhabitants	235	0,80	990	5,29	131	0,25

Source: Own representation based on data from the National Institute of Statistics, 2025.

The agricultural structure of the three counties shows marked spatial and functional contrasts shaped by natural conditions, historical-economic trajectories, and the level of technological uptake. Harghita (391335 ha) and Mureș (411131 ha) have large agricultural areas, while Covasna has a substantially smaller surface (187243 ha). Per 1000 inhabitants, Harghita ranks first (1340,42 ha/1000 inhabitants), followed by Covasna (1000,35 ha/1000 inhabitants) and Mureș (793,69 ha/1000 inhabitants), reflecting differences in population density. Land-use patterns also diverge: Mureș is dominated by arable land (221262 ha), supporting intensive crop production especially cereals (29533 ha; 57,01 ha/1000 inhabitants) and sugar beet (1303 ha; 2,52 ha/1000 inhabitants). By contrast, Harghita is characterized by extensive grassland resources, with pastures (162739 ha; 557,42 ha/1000 inhabitants) and meadows (139207 ha; 476,82 ha/1000 inhabitants) underpinning livestock farming, notably cattle (81002 heads; 277,45 heads/1000 inhabitants) and sheep (183302 heads; 627,85 heads/1000 inhabitants). Covasna displays a mixed profile, with a more balanced distribution among arable land (83449 ha; 445,83 ha/1000 inhabitants), pastures (61537 ha; 328,76 ha/1000 inhabitants), and meadows (42582 ha; 227,50 ha/1000 inhabitants). Crop specialization mirrors these structures: Mureș concentrates on cereals and sugar beet, while potatoes are prominent in Harghita (5448 ha; 18,66 ha/1000 inhabitants) and Covasna (14516 ha; 77,55 ha/1000 inhabitants); fruit cultivation remains marginal overall, although Mureș records the largest area (2377 ha; 4,59 ha/1000 inhabitants). Livestock composition further differentiates the counties: Harghita combines poultry (478115 heads; 1637,66 heads/1000 inhabitants) and cattle; Mureș is dominated by sheep (450121 heads; 868,96 heads/1000 inhabitants) and pigs (75005 heads; 144,80 heads/1000 inhabitants); and Covasna emphasizes sheep (182066 heads; 972,69 heads/1000 inhabitants) and poultry (567951 heads; 3034,30 heads/1000 inhabitants). Mechanization patterns reinforce these contrasts: Harghita records the highest tractor stock (11389 units; 39,01 units/1000 inhabitants) but fewer seeders (747 units; 2,56 units/1000 inhabitants) and harvesters (235 units; 0,80 units/1000 inhabitants); Mureș shows lower tractor (7572 units; 14,62 units/1000 inhabitants) and harvester (131 units; 0,25 units/1000 inhabitants) densities alongside more seeders (2803 units; 5,41 units/1000 inhabitants); while Covasna indicates intensive mechanization, especially through harvesters (990 units; 5,29 units/1000 inhabitants), and high tractor (6945 units; 37,10 units/1000 inhabitants) and seeder (1340 units; 7,16 units/1000 inhabitants) densities. Overall, Harghita reflects an extensive livestock–fodder system, Covasna a mixed agrarian structure, and Mureș a competitive profile characterized by specialized crop and livestock production and a more advanced technological base.

Tourism profile of Harghita, Covasna, and Mureș Counties

Tourism indicators reveal substantial inter-county differences in visitor numbers, accommodation capacity, and occupancy rates (Table 5). These gaps reflect not only uneven infrastructure but also distinct tourism supply structures, destination appeal, and strategic priorities.

Table 5. Tourism-related indicators in the examined counties, 2023

Attribute	Harghita		Covasna		Mureș	
	(units)	(units per 1000 inhabitants)	(units)	(units per 1000 inhabitants)	(units)	(units per 1000 inhabitants)
Number of guests / Number of guests per 1000 inhabitants	230490	789,48	173081	924,69	479790	926,24
Number of guest nights / Number of guest nights per 1000 inhabitants	538829	1845,62	637401	3405,34	922549	1780,98
Number of tourist accommodation units / Number of tourist accommodation units per 1000 inhabitants	545	1,87	162	0,87	434	0,84
Number of commercial accommodation beds / Number of commercial accommodation beds per 1000 inhabitants	10457	35,82	5660	30,24	12698	24,51
Number of guests per accommodation unit	422,92		1068,40		1105,51	

Source: Own representation based on data from the National Institute of Statistics, 2025.

Mureș County records the highest visitor traffic in the region (479790 guests; 922549 overnight stays), supported by established destinations such as Sovata and several historic urban centers. Harghita registers 230490 guests and 538829 overnight stays, indicating a stable development path consistent with longer-term sustainability. Covasna shows lower absolute volumes (173081 guests; 637401 overnight stays), yet its intensity is reflected in overnight stays per 1000 inhabitants (3405,34), markedly above Harghita (1845,62) and Mureș (1780,98), pointing to concentrated spa and recreational use. Accommodation capacity further differentiates county profiles. Harghita has the largest number of units (545) and 10457 commercial beds; Mureș provides 434 units and 12698 beds; Covasna comprises 162 units and 5660 beds. Per 1000 inhabitants, Harghita leads in units (1,87), followed by Covasna (0,87) and Mureș (0,84); bed capacity shows a similar hierarchy (Harghita 35,82; Covasna 30,24; Mureș 24,51). Utilization patterns, however, diverge: guests per unit are highest in Mureș (1105,51 persons/unit) and Covasna (1068,40 persons/unit), versus Harghita (422,92 persons/unit). Overall, Mureș functions as the regional tourism core with high demand concentration, Harghita displays a more balanced capacity use relationship, and Covasna is

increasingly specialized in spa tourism with longer stays, implying the need for improved capacity utilization and more targeted positioning.

Economic situation of Harghita, Covasna, and Mureș Counties

Regional development assessment relies on key indicators to capture inter-territorial disparities (GDP, GVA, sectoral structure, productivity, investment). Mureș, Harghita, and Covasna show marked performance asymmetries that shape competitiveness, summarized in Table 6.

Table 6. Economic profile indicators for the analyzed counties, 2023

Attribute	Harghita	Covasna	Mureș
Gross Domestic Product – GDP (million RON)	17848	11510	35572
GDP per capita (RON/person)	61150	61485	68710
Gross Value Added – GVA (million RON)	16020	10484	31110
GVA per capita (RON/person)	54872	56011	60058
Sectoral structure of GVA – Agriculture (%)	6,36	8,79	6,38
Sectoral structure of GVA – Industry and Construction (%)	31,29	29,04	31,93
Sectoral structure of GVA – Services (%)	62,35	62,17	61,69
Labor productivity (RON/person)	133416	132384	148791
Research and Development (R&D) expenditure (% of GDP)	0,18	0,13	0,54
Gross fixed capital formation (investment, million RON)	1989	1832	5712
Gross fixed capital formation per capita (RON/person)	6813	9787	11027

Source: Own representation based on data from the National Institute of Statistics, 2025.

The analysis relies on macroeconomic aggregates, gross domestic product (GDP) and gross value added (GVA) complemented by sectoral structure, labor productivity, innovation activity, and investment volume. In terms of economic output, Mureș County clearly dominates: its GDP of 35572 million RON and GVA of 31110 million RON substantially exceed Harghita (GDP 17848 million RON) and Covasna (GDP 11510 million RON), indicating an economic volume advantage of nearly twofold and more than threefold, respectively. Per capita, Mureș also leads (GDP 68710 RON/person, GVA 60058 RON/person), while Harghita (GDP 61150 RON/person, GVA 54872 RON/person) and Covasna (GDP 61485 RON/person, GVA 56011 RON/person) show more moderate differences, suggesting relative convergence. Sectoral data for 2023 indicate service-sector dominance across all counties (Harghita 62,35%, Covasna 62,17%, and Mureș 61,69%) with industry and construction accounting for 31,29% in Harghita, 31,93% in Mureș, and 29,04% in Covasna; agriculture remains the smallest component (6,36-6,38% in Harghita and Mureș; 8,79% in Covasna). Labor productivity is highest in Mureș (148791 RON/person), compared with Harghita (133416 RON/person) and Covasna (132384 RON/person). Innovation capacity is also more pronounced in Mureș, where R&D

expenditure reaches 0,54% of GDP, versus Harghita (0,18%) and Covasna (0,13%). Investment patterns reinforce this hierarchy: Mureș records 5712 million RON (11027 RON/person), while Covasna reports 1832 million RON (9787 RON/person) and Harghita 1989 million RON (6813 RON/person). Overall, 2023 data position Mureș as the most complex and advanced county economy, whereas Covasna appears more stable but less adaptive, and Harghita displays a transitional profile with medium development and moderate growth potential.

Building on this baseline context, the study compares the development policy documents of Harghita, Covasna, and Mureș. It examines SWOT content, strategic objectives and priority intervention areas, and delivery arrangements (implementation, monitoring, and evaluation), including alignment with EU thematic objectives and county-level governance capacity.

Comparative analysis of the SWOT assessments of Harghita, Covasna, and Mureș Counties

SWOT analysis is a widely used strategic planning method that supports the systematic identification and structuring of internal and external factors shaping the achievement of development objectives. Although primarily qualitative, it may be complemented by relevant indicators to incorporate quantitative elements.

The framework classifies factors along two dimensions origin (internal vs. external) and effect (positive vs. negative) resulting in four categories: (1) Strengths, i.e., territorially embedded resources, competencies, and capacities that facilitate development goals and support the sustainable improvement of competitiveness; (2) Weaknesses, i.e., internal structural deficits and operational dysfunctions that constrain development and limit the effective use of potential; (3) Opportunities, i.e., favorable macro- and meso-level trends and processes in the external environment that can generate long-term benefits if strategically leveraged; and (4) Threats, i.e., exogenous risks and structural challenges that may hinder the realization of development objectives and require adaptive responses.

As an integrative analytical tool, SWOT underpins territorial, economic, and social development strategies by diagnosing current conditions and informing strategic priorities. By examining the interaction between internal attributes and external drivers, it also contributes to strengthening resilience and adaptive capacity. The application of SWOT is particularly justified for territorial units (e.g., counties, districts, municipalities) characterized by complex socio-economic conditions, where both objective statistical evidence and locally grounded experiential knowledge are needed. In the present study, the SWOT results are synthesized in Table 7, providing a comparative overview of Harghita, Covasna, and Mureș counties.

Table 7. SWOT analysis of the assessed counties

Dimension	Harghita	Covasna	Mureș
Strengths	Stable ethnodemographic composition and strong community cohesion; Significant potential for renewable energy sources (hydropower, biomass, geothermal energy); Competitive wood industry cluster in the vicinity of Odorheiu Secuiesc and Miercurea Ciuc; Tourism assets: protected natural areas, spa resorts (e.g., Borszék), and religious pilgrimage tourism; Preserved cultural heritage and high levels of civil society engagement.	Favorable demographic structure, with a relatively younger population in rural areas; Stable small- and medium-sized enterprise (SME) base, predominantly in the service and handicraft sectors; Significant balneotourism (e.g., Covasna, Bodzaforduló) supported by well-developed infrastructure; Advanced progress in digital governance and e-administration initiatives; High employment rate and relatively low unemployment levels.	Highly diversified economic structure, encompassing mechanical engineering, pharmaceutical industry, wood processing, and information technology sectors; Advanced urban infrastructure and strategic transportation hub, including rail and highway connectivity; Educational center hosting institutions such as the University of Medicine and Pharmacy of Târgu Mureș, Sapientia University, and Petru Maior University; Presence of the county hospital alongside private healthcare facilities; Significant foreign direct investment and operational industrial parks.
Weaknesses	Low level of economic diversification, with a dominance of agricultural and wood-processing sectors; Near absence of research and development activities and digitalization in rural areas; Underdeveloped infrastructure (roads, railways, utilities), particularly in mountainous regions; Aging population and outmigration of young people; Insufficient vocational training provision and limited applied knowledge base.	Significant seasonal labor shortages in the service and tourism sectors; Weak innovation capacity, characterized by few registered patents and limited research institutions; Weakness of domestic market demand, with low purchasing power; Dependence on a limited number of sectors (e.g., balneotourism, wood processing); Inadequate accessibility of public services in rural areas.	Socio-economic disparities between urban and rural areas; High environmental pressures, including air pollution and industrial waste; Fluctuating labor market conditions, characterized by the outmigration of skilled workers; Aging rural populations, particularly in the Mureș Valley; Educational dropout rates in peripheral areas.

Opportunities	Implementation of a circular economy through the recycling of forestry and agricultural residues; Development of local energy self-sufficiency; Promotion of green tourism and eco-rural development; Strengthening cross-border cooperation initiatives; Advancement of digitalization and e-commerce, particularly for rural enterprises.	Establishment of innovation and technology clusters (e.g., green technologies, balneological research); Development of tourism branding and targeted international promotion; Advancement of settlement systems based on renewable energy sources; Enhancement of digital competencies among youth; Expansion of regional integration and partnership networks.	Implementation of smart specialization strategies: biotechnology, health industry, information technology; Expansion and modernization of industrial parks; Retention incentives for the young workforce; Smart city initiatives in Târgu Mureș and Reghin; Attraction of R&D investments through European funding sources.
Threats	The continued intensification of outmigration and the shortage of young professionals; Extreme weather events induced by climate change; Economic dependency on external capital and foreign investment; Environmental risks, including deforestation and the loss of biodiversity; Chronic underfunding of public services.	The deterioration of the regional competitive position within Central Romania (e.g., the strengthening of Brașov County); Economic stagnation in the absence of structural transformation; Vulnerability of mineral water and spa resources caused by climate change; The risk of exclusion from the digital transition; Investment uncertainty resulting from political instability.	Increasing social polarization and a deepening housing crisis in urban areas; Overburdened transportation and healthcare infrastructure; Outmigration of skilled labor to Western European regions; Tightening of environmental regulations; Economic instability resulting from macroeconomic volatility.

Source: Own representation based on the data from the development strategies, 2025.

The comparative SWOT analysis of Harghita, Covasna, and Mureș counties highlights both county-specific development conditions and shared strengths and constraints, supporting the rationale for coordinated, regionally integrated policy responses.

Strengths: Harghita and Covasna counties' strengths are primarily rooted in natural endowments, preserved cultural heritage, and strong social cohesion supported by local identity and community participation. Their substantial tourism potential (especially spa and eco-tourism) constitutes a key pillar of the local economy. By contrast, Mureș County displays a more diversified

economic profile, with mechanical engineering, pharmaceuticals, and IT as leading sectors, complemented by advanced higher-education and healthcare institutions (e.g., the University of Medicine, Pharmacy, Science and Technology of Târgu Mureș and Sapientia University), reinforcing its role as a regional center.

Weaknesses: The weaknesses indicate distinct structural constraints: Harghita and Covasna exhibit limited economic diversification, with strong dependence on agriculture and the wood industry, while Mureș faces more acute urban-rural disparities and social polarization. Across all three counties, demographic ageing and the outmigration of young, skilled workers undermine human-capital sustainability and regional competitiveness. In addition, weak R&D capacity and underdeveloped innovation ecosystems (especially in the rural areas of Harghita and Covasna) constrain progress towards smart specialization and higher value-added activities.

Opportunities: The opportunities dimension points to shared, future-oriented pathways, including a transition towards the circular economy (e.g., reusing by-products in the wood and agricultural sectors), greater integration of renewables (geothermal, biomass, hydropower) into local energy systems, and accelerated digitalization. Digital tools, e-commerce, and improved digital skills are particularly relevant for rural inclusion and modernization. County-specific priorities also emerge: Harghita stresses community self-sufficiency and green tourism; Covasna aims to leverage its balneological assets and strengthen international tourism branding; while Mureș is positioned to deepen smart specialization, notably in biotechnology, health-related industries, and IT.

Threats: The threat dimension indicates both shared and county-specific risks. Across all three counties, climate change and extreme weather, together with the overexploitation of natural resources (notably forests and mineral-water reserves), represent major pressures. Further recurring threats include dependence on external capital, limited structural economic renewal, and the persistent underfunding of public services. In Harghita, deforestation and biodiversity loss are particularly acute; in Covasna, slow structural transformation and the risk of digital exclusion dominate; while in Mureș, urbanization pressures (manifested in congested transport and healthcare systems and an escalating housing shortage) complicate sustainable urban development.

The territorial development potential of the three counties is both diverse and complementary, supporting regional specialization while also highlighting shared constraints and synergies. The key conclusions of the SWOT analysis are as follows:

1. Heterogeneous resource and development profile with complementary specializations

The three counties display distinct socio-economic profiles that support differentiated, yet complementary, development pathways. Harghita's resource base (wood, water, biomass) and rural character point to specialization in agriculture, food processing, and wood-related value chains.

Covasna's social stability, balneotourism assets, and SME-friendly environment underpin further expansion in services, especially health and wellness tourism. Mureș, with a diversified industrial structure, stronger infrastructure, and university centers, is positioned to consolidate a knowledge-based economy, notably in biotechnology, health-related industries, and ICT. These territorial differences should be interpreted as a basis for regional complementarity rather than as disadvantages.

2. The necessity of common development priorities

A shared set of development priorities is needed despite differing endowments. The SWOT results indicate recurring structural challenges - especially infrastructural gaps (notably in mountainous areas), limited rural digitalization, and pressures on environmental sustainability - that call for an integrated, region-wide response. Coordinated interventions such as integrated transport network development, the expansion of digital public services, and harmonized support for environmental investments are therefore essential, both to strengthen territorial cohesion and to improve population retention.

3. Spatial and sectoral advantages of cooperation

Strengthening inter-county and cross-border partnerships emerges as a key opportunity. Cooperation among agricultural and wood-processing actors, tourism clusters, and higher-education and research institutions can support innovation diffusion, improve the market positioning of local products, and enhance cross-sectoral integration. Leveraging complementarity (Covasna's craft and balneotourism assets, Harghita's wood-industry cluster, and Mureș's R&D capacities) can help build a more competitive regional development profile.

4. Complex challenges require integrated approaches

Complex demographic pressures (decline, ageing, outmigration), coupled with economic vulnerability and environmental risks, require integrated development policies that jointly address diversification, social inclusion, and ecological sustainability. Beyond infrastructure, priority should be given to human-capital retention (e.g., youth housing, vocational training, mobility) and to improving the quality of public services.

5. Sustainability and innovation as strategic directions

The SWOT analysis suggests that future competitiveness and resilience depend on sustainability-oriented technological innovation. Priority areas include renewable-based local energy systems, deeper integration into the digital economy, the valorization of agricultural and wood-sector residues, and smart settlement development, supported through targeted investment and R&D programs. These directions foster economic renewal while also improving well-being and reinforcing ecological balance.

Comparison of the strategic objectives of Harghita, Covasna, and Mureș Counties

This section compares the strategic objectives of Harghita, Covasna, and Mureș counties by analyzing the core components of their development strategies and the distinct priorities underpinning them. The assessment is organized into three thematic areas (overall visions, specific objectives, and methodological approaches) and concludes with an evaluation of their alignment with the European Union's strategic priorities.

General Development Visions

Table 8 compares the three counties' development visions and priorities, reflecting their distinct environmental, social, and economic contexts.

Table 8. Main characteristics of the development strategies in the analyzed counties

Element	Harghita	Covasna	Mureș
Development focus	Human-centered, sustainable rural development	Green, knowledge-based, and well-connected county	Innovation- and knowledge-driven county modernization
Regional identity	Strengthening rural communities	Community identity and local brand development	Cultural diversity and competitiveness
Strategic objective	Sustainable utilization of local resources and retention of young people	Urban–rural balance and digital–green transition	Improvement of quality of life and enhancement of touristic and economic attractiveness

Source: Own representation based on the data from the development strategies, 2025.

The counties' development strategies reflect distinct local profiles and long-term priorities, while remaining broadly complementary in their pursuit of sustainable development. Harghita focuses on rural development through agricultural modernization, improved competitiveness of local products, and strengthened rural communities, including support for young farmers and the renewal of traditional activities. Covasna prioritizes environmentally friendly and digital solutions to enhance settlement livability, energy efficiency, and green infrastructure, alongside maintaining local identity and social cohesion. Mureș emphasizes innovation, digitalization, and a knowledge-based economy, aiming to attract skilled young labor through R&D, university cooperation, and smart specialization, thereby expanding high value-added activities.

Specific objectives and priorities

The counties' specific objectives highlight differing thematic emphases, despite substantial overlap in environmental protection, economic development, and public-service modernization. All three endorse the green transition, but with distinct entry points: Harghita prioritizes ecological agriculture and multifunctional forestry; Covasna focuses on renewable energy integration and upgraded waste management; while Mureș adopts a broader "green county" approach combining biodiversity conservation with the remediation of environmentally degraded industrial sites. Economic priorities also diverge: Harghita strengthens small farms and agricultural innovation; Covasna promotes a

knowledge-based economy, creative industries, and SMEs; and Mureș targets industrial digitalization and competitiveness, building on its stronger urban infrastructure. Tourism strategies reflect similar differentiation, ranging from Harghita's rural and eco-tourism to Covasna's multi-segment (spa/wellness, eco, cultural) offer and Mureș's emphasis on heritage- and nature-based tourism as an economic driver. Table 9 summarizes the main fields of intended progress, including environment, economy, tourism, public services, youth support, and territorial cohesion.

Table 9. Specific development objectives and priorities in the examined counties

Development area	Harghita	Covasna	Mureș
Environment and sustainability	Organic farming, multifunctional forest management	Green public policy, waste management, renewable energy	Green county: biodiversity conservation, rehabilitation of contaminated industrial sites
Economic development	Agricultural innovation, processing industry, support for small-scale farms	Knowledge-based economy, SME development, creative industries	Competitive, digitalized economic environment
Tourism	Rural and eco-tourism development, cultural heritage preservation	Spa, wellness, eco-, and cultural tourism	Tourism as an economic driver: heritage- and nature-based
Public services	Development of healthcare and educational infrastructure, e-governance	Expansion of social services, telemedicine	Smart public services, urban infrastructure development
Youth and labor market	Support for young farmers, incentives for return migration	Labor market-oriented training, community engagement	Educational reforms, labor market flexibility
Territorial cohesion	Polycentric development, strengthening of 16 urban areas	Rural–urban partnerships, municipal cooperation	Intelligent integration of urbanization and rural connectivity

Source: Own representation based on the data from the development strategies, 2025.

Harghita prioritizes the modernization of healthcare and education infrastructure, coupled with the expansion of e-governance. Covasna focuses on strengthening social services and introducing new delivery forms (e.g., telemedicine), while Mureș emphasizes the digitalization of public services alongside urban infrastructure development. For youth and labor-market policy, Harghita supports young farmers and return incentives; Covasna promotes labor market-oriented training and community engagement; and Mureș highlights labor-market flexibility and education reforms aligned with industrial and service-sector needs. In terms of territorial cohesion, Harghita advances polycentric development by strengthening 16 urban centers, Covasna prioritizes urban-rural partnerships and inter-municipal cooperation, and Mureș promotes "smart" city-rural linkages to address metropolitan peripheral development gaps.

Methodological approach

Table 10 summarizes the county-specific methodological toolkits used to align strategy formulation with local conditions and European Union frameworks.

Table 10. Methodology for the formulation of development strategies in the examined counties

Criterion	Harghita	Covasna	Mureș
Applied methods	Quantitative and qualitative methods (focus groups, interviews)	SWOT analysis, trend analysis, stakeholder consultations	Detailed indicator framework and benchmarking
Participation	High level of engagement: farmers, mayors, and youth participation	Local communities and civil society organizations	Strategic partnerships with universities and R&D stakeholders

Source: Own representation based on the data from the development strategies, 2025.

Harghita County applies a strongly participatory approach, involving key local stakeholders (small farmers, local authorities, youth) to ensure needs-based priorities and reinforce local-level sustainability and cohesion. Covasna relies mainly on SWOT analysis and systematic trend mapping, complemented by the involvement of civil society organizations to strengthen legitimacy and practical relevance. Mureș places greater emphasis on methodological rigor through indicator-based planning, benchmarking, and cooperation with scientific partners (research institutes and universities), enabling measurable objectives, monitoring, and inter-territorial comparison of innovation potential.

Alignment with European Union priorities

All three county strategies broadly align with key European Union priorities, notably climate action, digitalization, social inclusion, and sustainable development. In climate policy, Harghita emphasizes the sustainability of traditional agricultural areas and the long-term balance between the local economy and natural resources, while Covasna and Mureș focus more directly on emission reduction and environmental quality improvements in line with the green transition. Table 11 summarizes the incorporation of these EU guidelines into county-level development programs.

Table 11. Alignment of development strategies with European Union priorities in the examined counties

Domain	Harghita	Covasna	Mureș
Climate policy	Organic agriculture, water and energy efficiency	CO_2 reduction, integration of environmental objectives	Sustainable infrastructure, air and water quality
Digitalization	E-governance, online advisory services	Open data, digital public services	Smart city and digital economic ecosystem
Social inclusion	Poverty reduction programs, community spaces	Social housing, care system	Labor market integration of disadvantaged groups

Source: Own representation based on the data from the development strategies, 2025.

Approaches to digitalization also differ: Harghita prioritizes e-governance to improve the accessibility and efficiency of public services; Covasna promotes open data and expanded digital public services to strengthen transparency and civic participation; and Mureș advances smart-city solutions to enhance urban livability and support integrated service innovation. Social inclusion features prominently in all three strategies, but with different focal points: Harghita emphasizes poverty reduction and support for disadvantaged groups, Covasna prioritizes the strengthening of social welfare services, and Mureș foregrounds labor-market integration as the main mechanism to reduce exclusion. Overall, while Harghita, Covasna, and Mureș operate within the same EU policy framework, their strategies diverge in line with regional specificities; sustainability, digitalization, and community strengthening remain common pillars, but county-level needs and opportunities shape distinct strategic emphases.

Strategic Objectives

The effectiveness of development strategies depends on their ability to reflect regional specificities and address local socio-economic and environmental challenges. Accordingly, the three counties exhibit distinct strategic profiles: Harghita prioritizes the preservation and modernization of sustainable rural values, Covasna advances the green transition while reinforcing community identity, and Mureș targets the upgrading of economic and infrastructural potential through innovation and digitalization. Table 12 provides a comparative overview of these objectives, outlining county-level strengths, constraints, and development priorities.

Table 12. The unique strategic goal profiles of the examined counties

Dimension	Harghita	Covasna	Mureș
Key strength	Community participation, programs based on local knowledge	Innovative territorial and public policy vision, community orientation	High potential for institutional and economic integration
Major challenge	Isolation, competitiveness of small farms	Infrastructure deficits, youth outmigration	Implementation of structural economic transformation
Development focus	Support for rural areas and youth	Community development and digitalization	Innovation and competitiveness

Source: Own representation based on the data from the development strategies, 2025.

These complementary approaches support county-level development while also enabling more cohesive regional cooperation, strengthening the competitiveness of Szeklerland and the Central Romania Development Region.

The implementation, monitoring, and evaluation mechanisms of Harghita, Covasna, and Mureș Counties

Effective implementation, continuous monitoring, and evidence-based evaluation are critical to strategy performance, enabling both tracking of interventions and adaptive adjustment to local and regional specificities. The three counties' development-policy practices illustrate how programs are embedded in institutional frameworks and how indicator systems and evaluation mechanisms support transparency and the assessment of effectiveness.

Governance structures and implementation models

The effectiveness of strategy implementation depends on county-level institutional frameworks and governance arrangements, which reflect distinct organizational logics. Table 13 compares the governance structures of Harghita, Covasna, and Mureș, focusing on decentralization, partnership forms, and the organizational units responsible for delivery. Harghita applies a decentralized, multi-level model that actively involves zonal and local actors, facilitating the integration of bottom-up initiatives. By contrast, Covasna operates a more centralized system coordinated by a dedicated strategy management unit, offering greater procedural standardization and potentially higher efficiency where territorial fragmentation is limited.

Table 13. Governance structure and implementation profile in the development strategies of the examined counties

Dimension	Harghita	Covasna	Mureș
Main implementing body	Harghita County Council, partnerships operating at multiple levels	Covasna County Council, Strategy Management Unit	Mureș County Council, Directorate for Regional Development and Project Implementation
Level of decentralization	High: distinct actors at county, zonal, and local levels	Central coordination and local partnerships	Coordinated system, with the County Council as the central actor
Type of partnership	Involvement of Community Development Associations, civil society, religious, and public institutions	Strategic Working Group, Monitoring Committee	Institutional collaboration between the public and private sectors

Source: Own representation based on the data from the development strategies, 2025.

Mureș County operates a relatively centralized, professionally managed system in which the County Council is supported by the Directorate for Regional Development and Project Implementation as the main operational unit, while partnerships rely mainly on institutional cooperation and public-private collaboration.

Strategic focus areas and intervention dimensions

A core element of the strategies is defining county-level priorities and intervention dimensions, reflecting socio-economic challenges and growth potential. Table 14 summarizes priority areas, program types, and implementation flexibility shaping interventions across the counties.

Table 14. Intervention dimensions in the development strategies of the studied counties

Dimension	Harghita	Covasna	Mureș
Focus areas	Eight thematic focus areas (agriculture, culture, public services, etc.)	Tourism, knowledge-based economy, digital governance, quality of life	Economic growth, infrastructure, social cohesion, environment
Program types	Sectoral subprograms (e.g., forestry, public services)	Strategic and supporting projects	Operational programs and thematic priorities
Implementation flexibility	Local action plans, to be developed within six months	Detailed annual action plans, subject to updates	Project-specific scheduling with medium- and long-term planning

Source: Own representation based on the data from the development strategies, 2025.

Harghita's strategy is broad, organized into eight thematic priority areas and strongly sector-oriented (e.g., agriculture, forestry), which suits natural resource-based rural development. Covasna emphasizes modernization and digital transformation (knowledge-based economy, e-governance), with program types aligned to the needs of small and medium-sized towns. Mureș applies an operational program framework with thematic priorities that supports professionally designed interventions, particularly in infrastructure development and social cohesion.

Monitoring and evaluation system

A robust monitoring and evaluation system is essential for efficiency, supporting continuous progress tracking, results measurement, and feedback to decision-makers. Table 15 summarizes county-level tools and mechanisms and their alignment with EU guidelines.

Table 15. Characteristics of monitoring and evaluation in the examined counties

Criterion	Harghita	Covasna	Mureș
Monitoring tool	Project-count-based indicators by target area	Strategy Implementation Monitoring Table (with measurable indicators)	Continuous monitoring, administrative and financial reporting
Evaluation timeframe	Ongoing, based on project counts and qualitative metrics	Annually (by February 15), full evaluation at the end of each cycle	Ongoing, through internal and external audits
Nature of indicators	Output indicators (number of projects, facilities, etc.)	Impact and outcome indicators (satisfaction, service expansion)	Medium- and long-term impact indicators, analysis of territorial disparities
Application of EU guidelines	Partial alignment with EU transparency and results-based guidelines, without a unified system	Guideline-compliant indicators (clear, measurable, cost-effective)	Implicit application (transparency, goal-oriented alignment)

Source: Own representation based on the data from the development strategies, 2025.

Across Harghita, Covasna, and Mureș, monitoring approaches differ in indicator types, evaluation frequency, and institutional integration. Harghita relies mainly on output and qualitative indicators that capture project progress but provide limited evidence on impacts; its project-count based system is straightforward yet only partially reflects the attainment of strategic objectives. Covasna County applies the most advanced evaluation framework, using clear, measurable indicators aligned with European Union guidelines; annual reporting and end-of-cycle assessments provide systematic feedback. Mureș County employs long-term impact indicators, monitoring changes in territorial disparities. Administrative and financial reporting ensures technical and budgetary control, although civil oversight is less prominent.

Coordination and capacity

Effective implementation requires clear coordination structures and sufficient administrative capacity. Across the examined counties, coordination mechanisms and implementation capacities vary, reflecting both territorial disparities and organizational arrangements. Table 16 summarizes county-level coordination models, capacity constraints, and approaches to digitalization.

Table 16. Characteristics of coordination and capacity in the development strategies of the examined counties

Characteristic	Harghita	Covasna	Mureș
Coordination mechanism	County Council + zonal partnerships	Strategy Management Unit + Strategy Implementation Monitoring Committee (within an institutional framework)	County Directorate, collaboration with local stakeholders
Capacity challenges	Not specified	Resource shortages in smaller settlements, need for advisory support	Development of professional capacities, coordination challenges
Digital tools	Digital administration, advisory offices	Strengthening digitalization (e.g., data management, e-governance)	Digitalization not explicitly emphasized, but serves as an important background factor

Source: Own representation based on the data from the development strategies, 2025.

Harghita applies a decentralized coordination model in which the County Council is complemented by zonal partnerships involving municipalities and local societal actors, supporting context-sensitive implementation; however, capacity constraints are only weakly articulated, implying uneven delivery across sub-areas. Covasna operates a more centralized and institutionalized model centered on a Strategy Management Unit and a Monitoring Committee, enabling standardized implementation and addressing local-level capacity gaps through institutional support. In Mureș, coordination is led by the County Council's Regional Development and Project Implementation Directorate, combining professional management with local cooperation; strategic documents

explicitly stress capacity building, particularly project-management competencies, while digitalization is mainly reflected through the upgrading of e-governance and data management rather than as a standalone priority.

Strategic flexibility and territorial cohesion

Adaptability is a critical feature of regional development strategies, supporting territorial cohesion. The three counties apply different approaches that reflect both regional disparities and efforts to strengthen identity and strategic flexibility (Table 17).

Table 17. Characteristics of flexibility and territorial cohesion in the development strategies of the examined counties

Dimension	Harghita	Covasna	Mureș
Territorial focus	Zones, peripheral areas, LEADER reform	Micro-regional associations, rural areas	Territorial equalization, integration of underdeveloped zones
Strategic flexibility	Action plan modifications possible within six months	Project updatability and mid-cycle modification	Modular planning, adaptation to current challenges
Alignment with county identity	Emphasis on local products and culture	"Covasna – Land of the Manors" tourism brand	Alignment of territorial development objectives with economic priorities

Source: Own representation based on the data from the development strategies, 2025.

Harghita County applies a flexible, adaptive planning logic that allows action-plan revisions within a six-month cycle, supporting rapid responses to socio-economic change and place-specific challenges (e.g., peripheral development and community engagement). The planned reform of the LEADER approach further strengthens community-led development and local identity, contributing to rural revitalization. Covasna's strategy emphasizes the integration of micro-regional structures and bottom-up initiatives, with formal provisions for updating projects during implementation; its "Covasna – Land of the Manors" branding also functions as an identity-building instrument with economic effects, especially in rural areas. In Mureș, strategic flexibility is embedded in a modular planning system that enables recalibration of interventions to evolving economic, social, and environmental conditions, with a strong focus on integrating lagging zones to reinforce internal territorial cohesion.

A comparative analysis of the development strategies of Harghita, Covasna, and Mureș counties indicates that distinct geographic, social, and economic endowments generate different development trajectories, while shared structural challenges call for coordinated regional responses. The strategic documents differ in structure, methodological bases, and objective systems, reflecting county governance traditions, local development-policy cultures, and varying alignment with EU and national frameworks. Asset-based approaches nonetheless create scope for a complementary regional

framework: Harghita builds on agriculture and forestry, Covasna on balneotourism and community cohesion, and Mureș on innovation and a knowledge-based economy.

The counties' development potentials are largely complementary, supporting a regionally integrated policy based on specialization and division of labor. Cross-cutting priorities include infrastructure modernization, the digital transition, environmental sustainability, and human-capital retention. Persistent issues (youth outmigration, unequal service access, and the integration of lagging peripheral areas) require complex interventions and transversal strategic axes, particularly in youth policy, education, and mobility. While the strategies incorporate elements of adaptability (notably rapid action-plan adjustment in Harghita and Covasna, and modular planning with indicator-based monitoring in Mureș), implementation capacity and institutionalized flexibility remain uneven, especially in smaller settlements. Strengthening cohesion therefore depends on deeper cooperation among county councils, local authorities, civil society, and research institutions, alongside capacity development in digital tools and data management.

Policy implications center on harmonizing complementarities and addressing shared constraints. A region-wide smart specialization portfolio could consolidate Harghita's leadership in forestry value chains, local food systems, and green energy; strengthen Covasna's positioning in balneology, creative industries, and digital governance; and further advance Mureș in biotechnology, health-related industries, and education-driven innovation. Monitoring should move beyond project counts and output indicators toward a unified, multidimensional framework that captures outcomes such as social cohesion, service accessibility, and climate resilience, combining EU-compatible metrics with locally tailored measures. Demographic pressures require an integrated package of rural housing instruments, job-creation incentives (including entrepreneurship support), and targeted training/reskilling aligned with regional labor-market demand. Cohesion also depends on reducing service disparities through scalable solutions (local service points, mobile services, telemedicine) and modernization of school networks. Finally, cross-border Hungarian–Romanian programs offer additional leverage for joint tourism products, cluster-based product development, and education and research cooperation.

Discussion

This comparative analysis shows that the three county strategies operationalize sustainable development through distinct governance and implementation logics despite facing partially convergent challenges (digital transition, infrastructure gaps, human capital retention, and territorial cohesion). Read through the literature review, three implications stand out. First, the endogenous development perspective is visible in all strategies through the emphasis on local assets (natural capital, cultural heritage, community identity), yet it is translated into different institutional designs.

Second, institutional capacity and monitoring architecture appear pivotal for whether sustainability remains a declarative principle or becomes an implementable policy program. Third, the findings support the place-based planning argument that cohesion and resilience depend not only on what priorities are selected (green/digital/inclusion), but on how they are governed, sequenced, and measured.

Harghita illustrates a participatory, decentralized approach that likely strengthens local legitimacy and fit, particularly in dispersed rural contexts; however, its predominantly output/project-count monitoring is less suited for outcome/impact learning. Covasna provides the clearest example of results-based governance: explicit indicators, institutionalized reporting routines, and feedback loops enhance strategic steerability and learning. Mureș represents a project- and innovation-oriented logic consistent with knowledge-based development and smart specialization, supported by stronger functional connectivity and institutional assets; at the same time, monitoring is more managerial/administrative and less explicit about broader societal feedback.

The manuscript's contribution goes beyond describing three strategies in at least two ways. Methodologically, it demonstrates a replicable framework for comparing heterogeneous county documents (different horizons and formats) by combining structural mapping with a thematic analytical grid. Substantively, it identifies a governance-and-monitoring typology – participatory decentralized (Harghita), indicator-led and feedback-oriented (Covasna), and project-pipeline/innovation-driven (Mureș) - which shifts attention from priority lists to the institutional conditions of sustainability mainstreaming.

Importantly, the case offers transferable lessons for other Romanian counties and comparable CEE regions. (i) Monitoring should be institutionalized as a learning system with outcome/impact indicators and scheduled reporting (Covasna as a model), contingent on minimum administrative capacity and data availability. (ii) Participatory planning should be paired with operational clarity (responsibilities, unified indicators) to translate local needs into measurable interventions (a key upgrade for Harghita-type models). (iii) Strategy effectiveness increases when linked to a realistic project pipeline and delivery chain (project preparation capacity, financing mapping, partnerships), as illustrated by Mureș. (iv) Cohesion objectives are more actionable when infrastructure and digital transition are explicitly tied to service accessibility and retention mechanisms (education/skills, mobility, housing-related instruments).

This discussion is based on formally adopted documents and therefore captures articulated priorities and governance design rather than ex-post effectiveness. The forthcoming LAU1/LEADER level research can validate implementation dynamics and outcomes by combining document evidence with interviews, administrative monitoring data, and selected outcome measures.

5. Conclusion

The comparative analysis of the development strategies of Harghita, Covasna, and Mureș counties revealed that these territories face distinct social, economic, and environmental challenges, which are reflected in the structure, objectives, and institutional implementation mechanisms of their respective strategic documents. Each county builds upon a specific resource profile: Harghita County emphasizes natural resources and community participation; Covasna County focuses on social well-being and digital modernization; while Mureș County prioritizes a diversified economy and innovation potential. Despite these differentiated strategic orientations, several shared priorities can be identified, including sustainability, digital transition, infrastructural investments, and the mitigation of labor market challenges. The examined strategies clearly demonstrate how European Union guidelines - such as climate protection, social cohesion, and digital transformation - are integrated into diverse regional contexts. While the governance models, monitoring systems, and levels of strategic flexibility display varying degrees of maturity, they share a common objective: ensuring effective implementation and the establishment of robust feedback mechanisms. The findings indicate that the development strategies of the three counties are not only aligned with local needs but also contain potential synergies that could strengthen inter-county cooperation, particularly within the framework of the Central Romania Development Region. The results contribute to shaping future regional development policies that are more evidence-based, targeted, and adaptive - addressing the need to reduce territorial disparities, enhance local capacities, and promote innovation-driven economic growth. Nevertheless, the present analysis should not be considered the endpoint of the research, as the investigation continues at a lower territorial scale, adopting a rural development perspective. The next phase aims to explore the development mechanisms of LAU 1-level units - particularly those within the operational areas of the LEADER programme - through a combination of secondary and primary research methods. This ongoing research is expected to deepen the understanding of local development policy processes and facilitate the identification of more precise regional synergies.

References

Abisoye, A. and Akerele, J.I., 2022. A practical framework for advancing cybersecurity, artificial intelligence and technological ecosystems to support regional economic development and innovation. *Int J Multidiscip Res Growth Eval*, *3*(1), 700-713. https://doi.org/10.54660/.IJMRGE.2022.3.1.700-713

Balaton, K., Hortoványi L., Incze, E., Laczkó, M., Szabó, Zs. and Tari, E., 2017. *Stratégiai menedzsment*. Budapest: Akadémiai Kiadó.

Bodnár, G., 2020. Az endogén fejlődés tényezőinek vizsgálata rurális térségekben. *JATEPress Szeged*.

Ceapraz, L., Rakotovao, M. and Sauvée, L., 2021. The Regional Integration of Biorefineries in France: an Approach by the Territorial Innovation Models. *Romanian Journal of Regional Science*, *15*(1), 33-51.

Chivu, G. and Cramarenco, R.E., 2021. On Regional Development in Poland and Romania. *Romanian Journal of Regional Science*, *15*(1), 77-97.

Christofakis, M., Gkouzos, A. and Gaki, E., 2024. Demographic Change and Regional Specialisation: The Case of Greek NUTS II Regions. *Economies*, *12*(11), 284. https://doi.org/10.3390/economies12110284

Ciucu, A.N. and Păuna, C.B., 2025. Comparative sustainability and resilience assessment in the EU27 countries. *Romanian Journal of Regional Science*, *19*(1), 121-146. https://doi.org/10.61225/rjrs.2025.05

Colglazier, W., 2015. Sustainable development agenda: 2030. *Science*, *349*(6252), 1048-1050. https://doi.org/10.1126/science.aad2333

Coradini Nader Adam, B., Almeida Viana, J.G. and Dalla Valle, C., 2025. Institutional Change and Endogenous Development: Theoretical Contributions. *Economies*, *13*(6), 165. https://doi.org/10.3390/economies13060165

Dentinho, T. P., Kourtit, K. and Nijkamp, P., 2021. Regional Science Perspectives on Global Sustainable Development-An Exploration of Multidimensional Expert Views by Means of Q Analysis. *Romanian Journal of Regional Science*, *15*(1), 1-32.

Dinya, L., 2013. „Zöld" prioritások érvényesítése a megyei szintű területfejlesztési stratégiákban. *Journal of Central European Green Innovation*, *1* (1), 21–33.

Faludi, A., 2010. *Cohesion, coherence, cooperation: European spatial planning coming of age?*. Routledge. https://doi.org/10.4324/9780203842324

Gál, K. and Pásztor, R., 2024. Rurális stratégiák az urbanizáció korában. Az Érmellék példája. *Észak-magyarországi Stratégiai Füzetek*, *21*(03), 24-34.

Glasson, J. and Marshall, T., 2007. *Regional planning*. London: Routledge. https://doi.org/10.4324/9780203938935

Healey, P., 2020. *Collaborative planning: Shaping places in fragmented societies*. Bloomsbury Publishing. London.

Horváthné, K. B., Koponicsné, Gy. D., Nagy, B. and Szabó, K., 2021. Classification of the Development Areas of the South Transdanubian Region (Hungary). *Regional and Business Studies*, *13*(1). 31-44. https://doi.org/10.33568/rbs.2816

Horváthné, K. B., Varjú, V., Nagy B., Szabó, K., Koponicsné, Gy. D. and Barna, R., 2022. The effects of spatial dependence and resource availability on rural development planning projects in the heterogeneuos micro-regions of the Southern Transdanubian region, Hungary. *Journal of Urban and Regional Analysis, 14*(2). 159-186. https://doi.org/10.37043/JURA.2022.14.2.1

Káposzta, J., 2014. Területi különbségek kialakulásának főbb összefüggései. *Gazdálkodás, 58* (5), 399–412.

Keating, M., 1998. *The new regionalism in Western Europe: territorial restructuring and political change*. Cheltenham, UK: E. Elgar.

Kovászna Megye Tanácsa, 2021. *Kovászna Megye Integrált Fejlesztési Stratégiája 2021–2030 – POTSA terv*. Sepsiszentgyörgy.

Kruse, M., Mesloh, M. and Wedemeier, J., 2022. Smart specialisation and resilience: How future-proof are European Regions?. *Romanian Journal of Regional Science*, *16*(1). 34-50.

Kulkov, I., Kulkova, J., Rohrbeck, R., Menvielle, L., Kaartemo, V. and Makkonen, H., 2024. Artificial intelligence-driven sustainable development: Examining organizational, technical, and processing approaches to achieving global goals. *Sustainable Development*, *32*(3), 2253-2267. https://doi.org/10.1002/sd.2773

Lempek, M.Z. and Tésits, R., 2021. A vidéki térségek turizmusalapú fejlesztési lehetőségei a Siklósi járás példáján. *Modern Geográfia*, *16*(2), 87-112.

Lu, D., 2024. *Regional development and its spatial structure*. Springer. https://doi.org/10.1007/978-981-99-7683-6

Maros Megye Tanácsa, 2021. *Maros megye fejlesztési terve 2021–2027. Készült az SC Eurotop Consulting SRL közreműködésével*. Marosvásárhely.

Medeiros, E., Zaucha, J. and Ciołek, D., 2023. Measuring territorial cohesion trends in Europe: a correlation with EU Cohesion Policy. *European Planning Studies*, *31*(9), 1868-1884. https://doi.org/10.1080/09654313.2022.2143713

Navarro-Valverde, F., Labianca, M., Cejudo-García, E. and De Rubertis, S., 2022. Social innovation in rural areas of the European Union learnings from neo-endogenous development projects in Italy and Spain. *Sustainability*, *14*(11), 6439. https://doi.org/10.3390/su14116439

Planificatio Dezvoltare și Energie S.R.L., 2020. *Hargita megye vidékfejlesztési stratégiája 2020–2030. Hargita Megye Tanácsa*. Csíkszereda.

Ritter, K. and Varga, O., 2025. A NUTS 3 level socio-economic analysis using multivariate methods. *Romanian Journal of Regional Science*, *19*(1), 51-86. https://doi.org/10.61225/rjrs.2025.03

Romer, P.M., 2009. Two strategies for economic development: using ideas and producing ideas. In The strategic management of intellectual capital. *Routledge*. 211-238.

Serbanica, C., 2018. Smart Specialization and Sustainability in Central and Eastern Europe: An Inquiry Into The Logic of Intervention. *Romanian Journal of Regional Science*, *12*(1), 43-58.

Skelcher, C., 2025. Planning context and planning methodology in regional planning. *Approaches in Public Policy*, 120-148.

Stern, N. and Stern, N.H., 2002. *A strategy for development*. World Bank Publications.

Takano, K., Tsutsumi, M. and Kikukawa, Y., 2018. Spatial modeling of industrial location determinants in Japan: Empirical analysis using spatial econometric approaches. *Review of Urban & Regional Development Studies*, *30*(1), 26-43. https://doi.org/10.1111/rurd.12073

Vázquez-Barquero, A. and Rodríguez-Cohard, J.C., 2016. Endogenous development and institutions: Challenges for local development initiatives. *Environment and Planning C: Government and Policy*, *34*(6), 1135-1153. https://doi.org/10.1177/0263774X15624924

Veckalne, R. and Tambovceva, T., 2023. Sustainability in Regional Planning: A Bibliometric Analysis. *TalTech Journal of European Studies*, *13*(1), 133-149.

Other

National Institute of Statistics https://insse.ro/cms/

Eurostat: Statistical Office of the European Union https://ec.europa.eu/eurostat/data/database