EUROPA XXI
Vol. 44, 2023, pp. xx-xx
https://doi.org/10.7163/Eu21.2023.44.3

Institute of Geography and Spatial Organization
Polish Academy of Sciences

DELAYS IN TERRITORIAL DEVELOPMENT – CASE STUDY OF THE HUNGARIAN SAND RIDGE REGION

András Donát Kovács[1], Jenő Zsolt Farkas[1], Viktor Varjú[1], Ádám Szalai[1], József Lennert[1], Edit Hoyk[1,2], Béla Csáki[3]

[1] HUN-REN Centre for Economic and Regional Studies, Institute for Regional Studies
1097 Budapest, Tóth Kálmán u. 4: Hungary
kovacs.andrasdonat@krtk.hun-ren.hu ● farkas.jenozsolt@krtk.hun-ren.hu ● varju.viktor@krtk.hun-ren.hu ● szalai.adam@krtk.hun-ren.hu ● hoyk.edit@krtk.hun-ren.hu ● lennert.jozsef@krtk.hun-ren.hu

[2] John von Neumann University, Faculty of Horticulture
6000 Kecskemét, Izsáki út 10: Hungary
hoyk.edit@nje.hu

[3] Csongrád-Csanád County Municipality Office
6720 Szeged, Tisza Lajos krt. 2-4: Hungary
csaki.bela@csongradcsanad.hu

Abstract. There are regions in Europe that are particularly vulnerable both environmentally and socially. Hungary's Sand Ridge in the Danube–Tisza Interfluve (*Homokhátság* in Hungarian) is considered such a region. The water balance of these lowland landscapes has been negative for decades, and complex ecological and social problems have escalated in parallel with aridification. Therefore, this region deserves special attention from the territorial development perspective. Over the last two decades, our successive studies have revealed that development policies in the region have been unsuccessful on multiple occasions, unable to alter the core negative trends significantly. We also noticed the mistakes and inertness of spatial planning when we worked on our current applied research: the Sand Ridge Regional Development Concept and Program. This study aims to explore deficiencies and shortcomings of the spatial policy and identify the factors that have slowed territorial development. Insights from interviews with experts and surveys conducted with local municipalities highlight that access to European Union funds has not alleviated long-standing conflicts. Resource-driven and uniform planning has become one of the main hindering factors. According to the experts, the necessary complex programs have not been implemented, and many initiatives have stalled. They also expressed concerns that Sand Ridge's natural and social endangerment will continue to increase.

Keywords: *Homokhátság*, Hungary, regional planning, Sand Ridge, spatial policy, territorial development.

Introduction

The environmental and social risks of sustainability have become more pressing in recent decades (Tollefson, 2022; IPCC, 2023). Hungary is also in a challenging position (Tran et al., 2022; Jánosi et al., 2023), and the Sand Ridge in the Danube–Tisza Interfluve (Sand Ridge abbreviated as SR or named *Homokhátság* in Hungarian) is one of the most exposed regions within Europe (Kovács

et al., 2017). Thus, since the mid-90s, the SR has garnered attention in the literature primarily because of its aridification and landscape degradation (Pálfai et al., 1998; Bartholy et al., 2005; Cserny & Füleky, 2008; Bíró, 2011; Rakonczai et al., 2021). The region's name has become synonymous with unfavorable changes in hydrological balance, declining groundwater levels, and the deterioration of other ecological parameters (Bíró et al., 2007; Molnár & Balázs, 2009; Rakonczai, 2011). Some studies demonstrated that, alongside aridification, other adverse societal and economic processes are unfolding (Csatári et al., 2004; 2016; Farkas et al., 2015; 2023). These issues signaled the need for area-specific policy interventions even before the turn of the millennium.

Hungarian local governments gaining power after the regime change initially showed openness to a cross-sectoral territorial development (abbreviated as TD) approach. In 1995, a decisive moment occurred regarding the development of the SR when the central government adopted a Parliament Decision (No. 105/1995 XI.1.; OGY, 1995) for a better water supply. This Decision included tasks requiring innovative planning and programming, such as landscape rehabilitation and the comprehensive water management of this area. Another significant milestone was the inclusion of the *Homokhátság* in the National Regional Development Concept (OGY, 2005). This Concept had already declared that interventions in this area should aim at population retention, the reversal of natural degradation processes, the facilitation of structural changes in agriculture, and the restoration of the hydrological balance. So, the SR issue got development priority, which was confirmed by several Hungarian laws and regulations (Government Decision No. 1405/2013 VII. 2. and Parliament Decisions No. 1/2014 I. 3. and No. 23/2018 X. 31.). In the meantime, numerous scientific studies have drawn attention to the vulnerability and the need for interventions (Csatári, 1999; Csatári et al., 2004; Kovács et al., 2017). Today, in alignment with the EU planning system, the SR is a designated area in water management policy. Hungary's Recovery and Resilience Plan includes the 'Improvement and Restoration of the Water-Deficient Ecological State of the Homokhátság' project. So, in principle, the SR has long been given the special attention it deserves.

However, our previous experiences show that comprehensive and area-specific TD has not been implemented on the SR for over twenty years. So, the central question arises: What hindered the previous development ideas, and why was spatial planning unsuccessful? As a hypothesis, we claim that the solution to complex problems is long overdue, but regional development has not been able to provide substantial answers. We emphasize that no further progress can be achieved in the SR without rethinking the delayed and ad-hoc territorial policy. Based on the facts and statements above, our work aims to understand the processes behind SR's slow and ineffective TD.

In our study, we want to review the delaying factors that cause the inertia of development policies. Based on in-depth expert interviews and a survey with municipal employees, we present the opinions that show the main symptoms of TD. It is important to note that within the scope of our applied research, we are also working on the Regional Development Concept and Program for the Homokhátság. We aim to utilize our empirical research in 2023 and the experiences gained while formulating strategic and operative documents to draw attention to the necessity of innovative, region-specific development. Most of our results are region-specific, but some of the findings are general, so the article can serve as a lesson for other Central and Eastern European countries.

Development concerns from the perspective of the Sand Ridge

Many concerns have been raised regarding the TD throughout Europe (Michalcewicz-Kaniowska & Zajdel, 2019; Georgios et al., 2021;). In recent years, numerous authors have discussed the controversial processes that slow down or hinder the improvement of living conditions (Ianoş, 2010; Tickamyer & Patel-Campillo, 2016). Some studies underline that despite the extensive regional and rural planning, the environment quality did not change in Hungary and other countries (Kovách, 2017; Zang et al., 2020; Slee et al., 2022). Favored key sectors, such as tourism and digital transformation, only brought economic recovery under certain conditions (Menconi et al., 2017; Salemink et al., 2017). Despite EU regulations, many places in Hungary have witnessed no significant breakthroughs in alleviating the complex ecological, economic, and social problems (Perger, 2015; Smit et al., 2015). Since 2010, terms like 'smart', 'intelligent', 'sustainable', and 'inclusive' have come to the forefront of the EU's spatial development vocabulary. These terms emerged as a response to some areas' declining productivity and low growth rates. However, it has never been entirely clear how the Concept of 'smart growth' will address spatial inequalities and disparities and how all this results in customized developments (Naldi et al., 2015). Despite comprehensive policy reforms and multi-level governance practices, the extent to which spatial development can contribute to rural restructuring and regional convergence remains debatable (Kull, 2016). The doubts about the TD are absolutely relevant in the SR case (Kovács et al., 2017).

Related to TD, some authors also criticized the Common Agricultural Policy (CAP), which approached catch-up from an 'agribusiness' perspective. Thus, intensive large-scale farming practices that could make better use of subsidies had significant environmental impacts on landscapes, ultimately hindering sustainability (Fayet et al., 2022). While the CAP has implemented changes in recent years to meet the demands for sustainability, some authors argue that further transformations are needed for the sector to become genuinely environmentally friendly (Pe'er et al., 2019, 2020; Hoyk et al., 2022). Many had high hopes for the European Green Deal (EGD) announced by the European Commission in December 2019. However, examining the green transition, some have noted that the ambitious green policy efforts are progressing unequally. Certain less favored regions lag behind in climate protection due to fewer resources, and the EGD and CAP have not yet become effectively harmonized (Sikora, 2021).

Furthermore, the dilemma of place-based versus place-neutral TD concepts has emerged (Barca, 2012; Margarian & Hundt, 2023). Our standpoint aligns with Margarian (2013), who suggests that comprehensive development cannot be solely based on internal resources for specific regions (Farkas & Kovács, 2018). Considering the SR, we find validity in the observations of Ezcurra (2019) and Copus et al. (2021), suggesting that marginalization occurs where both natural and social capital are scarcely available. Some argue that the Fourth Industrial Revolution deepened territorial disparities (Salemink et al., 2017; Cowie et al., 2020).

The above observations are consistent with the results of our previous studies in the case area (Farkas & Kovács, 2006, 2021; Kovács et al., 2015). Our earlier findings indicate that the SR will not be able to catch up on its own, and the existing development plans cannot be implemented within the current national and EU frameworks. In the past 25 years, most plans related to the SR remained 'on paper,' while the estimated costs of the necessary interventions increased with successive planning cycles. The 'Preparation of the Water Management Project to Improve the Water-Scarce Ecological Condition of the Homokhátság 2016' concept allocated EUR 350 million for water retention and replenishment costs for the entire region. However, this plan was not implemented due to a lack of financial resources. In 2020, the government allocated only

EUR 16 million for the 'Improvement and Restoration of the Water-Scarce Ecological Condition of the Homokhátság' project, which will only be able to cover the planning costs. According to the latest information in 2023, the Homokhátság Regional Development Council estimated EUR 385 million for the implementation cost of the planned water replenishment infrastructure only for the northern part of the region.

Study area

The SR is geographically situated in the central part of the Hungarian Great Plain, known as the Danube-Tisza Interfluve. However, it is essential to note that the delineation used in regional development considers administrative boundaries of settlements rather than strictly adhering to Hungarian natural landscapes' taxonomic division. The delineation we used was initially employed in the 'Sustainable Development of the Sand Ridge' strategic document (Terra Studio ÁBKSZ, 2007). Subsequently, the same region, composed of 117 municipalities, was included in the 2013 National Development and Regional Development Concept.

The research area has a dry continental climate with increasing Mediterranean influences. The average annual temperature ranges from 10 to 10.5 °C, and annual precipitation averages 500-550 mm, which may decrease by as much as 30-40% in some affected areas in the coming years, posing challenges to agriculture, mainly due to the sandy soils (OMSZ, 2023). As mentioned, water scarcity is a central problem. Due to receding groundwater levels, former temporary lakes, marshes, or bogs retreat or disappear altogether. However, higher-than-usual rainfall in some years leads to the upwelling of excess inland water. This situation causes problems, especially if the land use has already adapted to the scarcer presence of water. This cultural landscape is highly mosaic, with patches of protected areas embedded within agricultural expanses. Most of these natural conversation areas are affiliated with the Kiskunság National Park.

The region has 623,386 inhabitants, which accounts for 6.6% of Hungary's population. The population density is almost 72 persons per square kilometer, below the national average (104) and is typical for rural areas. A unique characteristic of the region is that nearly 15% of the total population lives in scattered farms; this figure can reach 60% in some settlements. Originally, the scattered farm system filled out the gaps in the sparse settlement network and provided residence for people working on the surrounding plots of land – at first temporary, later permanent residence. However, the proportion of people making a living from agriculture is on a long-term decline, and this trend also negatively affects the demography of scattered farms (Perger & Kovács, 2019). On the other hand, there is an increase in the number of suburban homesteads not connected to agricultural activity on the outskirts of larger cities. As a result of these opposing processes, the proportion of dwellings on the outskirts may remain high, but there is an observable shift in their function.

Regarding the economy, the region exhibits a spectacular duality. Over the past 15 years, the performance of the Budapest agglomeration, Kecskemét, and its functional urban area has rapidly developed due to foreign direct investments and economic suburbanization. As a result, Kecskemét, the largest city, has become a significant industrial and cultural center at the national level. However, the southern areas, especially those near the state border, have lagged, leading to noticeable inequalities among micro-regions and clusters of settlements. In general, the subcenters of this area are often functionally deficient and weak. The Jánoshalma and Bácsalmás administrative districts are among the most underdeveloped nationally and were categorized

as the most disadvantaged areas requiring comprehensive support when classified in 2007 (KSH, 2008). Considering these disparities and previous development documents, five distinctive sub-regions were delineated when formulating the Regional Development Concept and Program of the Homokhátság, as shown in Figure 1.

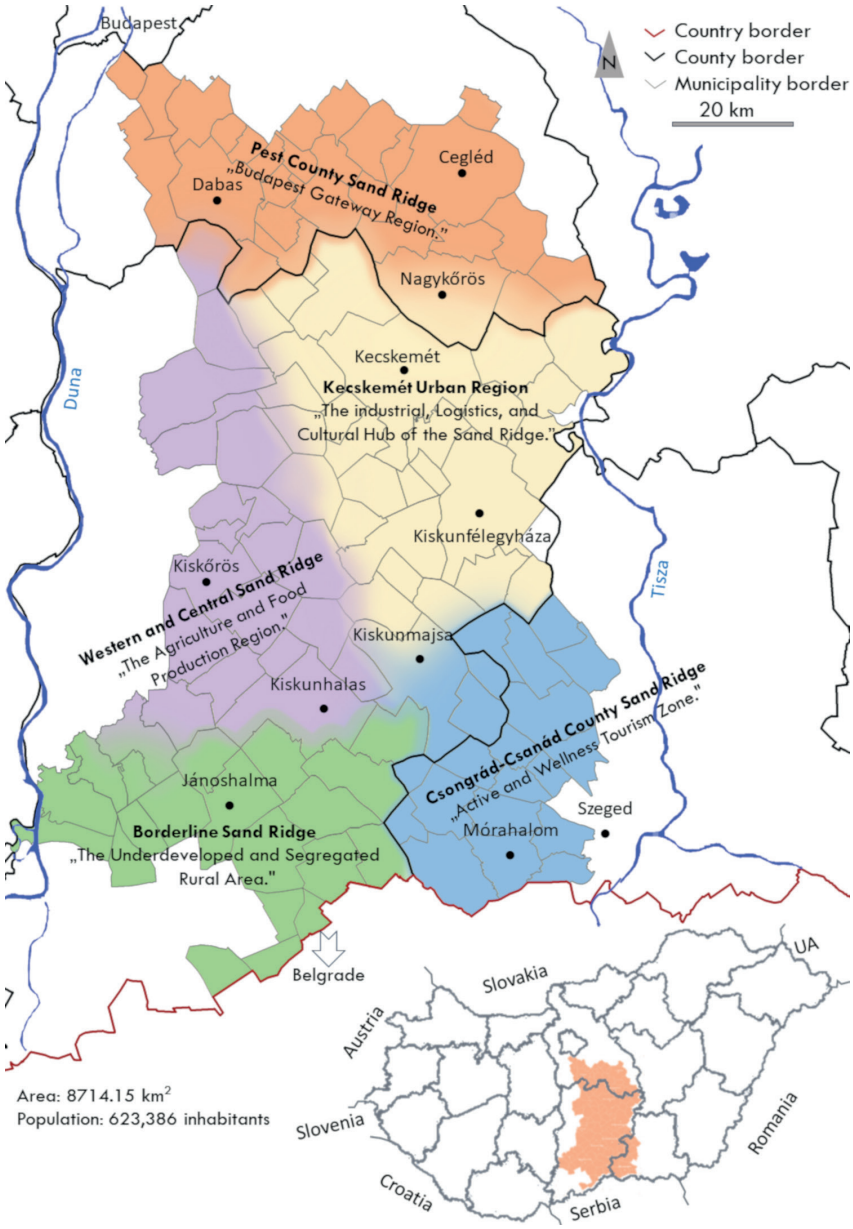

Figure 1. Geographic location and the sub-regions of the Sand Ridge
Source: own elaboration.

Methodology and data collection

In connection with the TD challenges affecting the SR, we presumed that up-to-date and reliable information could be obtained from prominent experts actively working in the region. Therefore, during the primary data collection in the spring of 2023, we conducted in-depth interviews with 14 competent persons. In the first round, we interviewed four professionals who already knew us and had decades of experience. We identified additional interviewees based on recommendations (with the snowball method) and other references. Our respondents were well-acquainted with the region and possessed seasoned expertise and comprehensive knowledge about the SR and its municipalities (some had known the area well since the 1970s). All interviews were face-to-face, and the conversations lasted at least one hour. We collected relevant opinions from experts in TD, regional planning, and project management. The majority of respondents were politically independent. Two respondents were retired age with comprehensive knowledge, another six persons were over 40, and six people were under 40. The gender ratio was the two-thirds majority of men. They were trustworthy, most of them with higher education. We followed the basic rules of qualitative interviewing (Rubin & Rubin, 2012; Castillo-Montoya, 2016), respected the interviewees' rights, and ensured anonymity. By preparing the interview protocol matrix, we systematized the opinions and comments expressed according to the questions. We had prepared a list of predetermined interview questions, but we offered the participants the chance to pursue issues they felt essential. These questions include, but are not limited to: How can the SR region become a target area of domestic or European territorial development? Can the area itself be managed comprehensively? Which factors can help or hinder spatial planning and programming tailored to the region? What could be the key sectors of the TD of the SR?

In order to supplement the information obtained from the interviews, we also conducted an online survey during February and March 2023. The target group was the local governments of the SR settlements. So, we got to know the opinions of decision-makers, mayors or clerks, and project managers. The Homokhátság Regional Development Council gave the email addresses, so we emailed the questionnaires. We received responses from 56 of the 117 affected municipalities, which means a response rate of 48%. This questionnaire included varied questions, but we used the relevant ones in this article, revealing the SR problems and the development shortcomings. Our analysis mainly focuses on the freely worded answers to the questionnaire's open questions, which were as follows: What kind of problems can be realized in the SR? Why was TD unsuccessful in the region? The responses were formulated individually and uniquely by the respondents. Therefore, the sentences with the same content were combined by coding with the help of the content analysis software MAXQDA. Answers with similar meanings with a simplified code can be quantified together with the number of mentions, while the problem areas specific to the region and the local government's intentions became more transparent.

We processed the answers by topic and mostly used the interview and questionnaire answers simultaneously. We complemented the methods above with document and statistical analysis necessary for our current applied research work, i.e., the Regional Development Concept and Program of Homokhátság.

Results

The complexity of territorial problems and weak partnership relations

Based on the interviews with experts, questionnaire responses, and our prior knowledge of the sample area, we grouped and visualized the SR's problem factors as follows (Fig. 2).

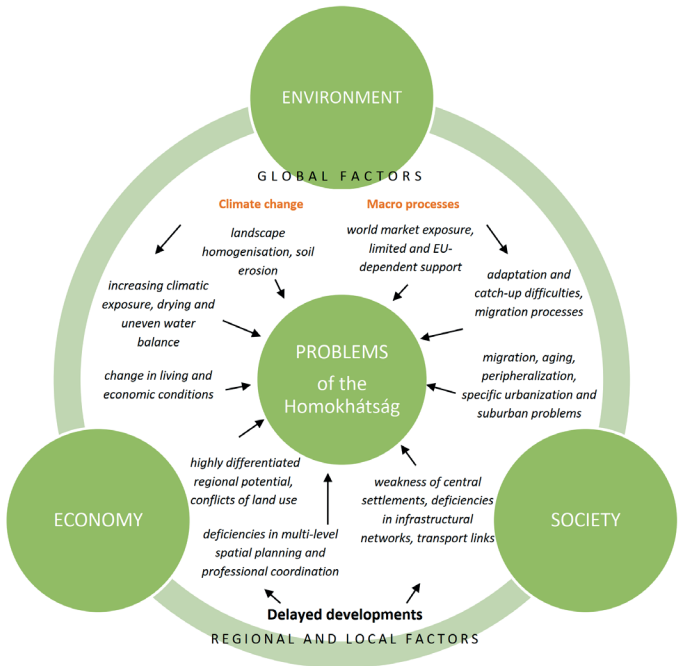

Figure 2. Factors affecting the future of the Sand Ridge in the context of the environmental-economic-social triad
Source: own elaboration based on interviews.

Almost all respondents agreed that a more coordinated regional and local development policy could influence all problem factors favorably. Even problems of global origin can be alleviated if the intervention is sufficiently effective at the regional level – for example, environmental management, sustainable land use, and climate adaptation. The opinions are unanimous that the SR should be treated as a single territorial development unit. The respondents explained that the macro-conditions for TD and the possibilities available to the municipalities have not yet enabled complex and deeper cooperation. Several individuals attributed this to the fact that the affected settlements fall under three medium-level administrative units (counties – NUTS3) and two statistical regions (NUTS2). Efforts towards joint programs were primarily observed within the counties, micro-regions, and district levels. However, local government interventions remained largely isolated, as one of the respondents summed up: 'In water management, the region's settlements occasionally attempted to collaborate, but many of these initiatives stalled. Conflicts of interest arose in numerous cases, undermining political advocacy.' One experienced respondent concluded: 'Only a few entrepreneurs, farmers, and municipalities cooperated successfully in water retention.' Sev-

eral interviewed experts emphasized that the SR should be treated as a functional area where individual sectors (water affairs, nature conservation, agriculture, tourism, and the social sector) must be managed within a comprehensive programming framework.

Water Management is a typical example of weak partnership relations. Aridification has been a long-standing concern for decades, yet no viable solution has been found. We believe it is worth exploring why water retention and replacement have remained unresolved. One of our respondents articulated, 'The failure of unified TD on the Sand Ridge can be largely attributed to the inadequacy of water policy.' Though expressed with more nuance, every interviewee we consulted echoed this strongly critical statement. The current water management projects are underway in designated target areas but fall significantly short of the initially planned scope. They primarily consist of model projects designed to contribute to water replacement for ecological (nature conservation) purposes and support landscape management, agriculture, and climate protection goals. However, opinions among the interviewed experts vary regarding their usefulness. While some believe these developments have a noticeable regional impact, others are concerned that addressing the SR issue is reduced to improving water supply and irrigation infrastructure in a few specific settlements: 'The resources required for implementing a regional program are minimal. Strategic directions should include establishing a robust settlement network, an economic program ensuring self-sufficiency, and revitalizing the agricultural system. Middle-level competencies, such as those at the county and local levels, must be strengthened soon.' This is a crucial policy task for the SR and the entire country. However, local governments cannot actively engage in territorial politics; they are limited to advocating for fragmented resources. 'This dependency on the central government is reinforced as a result. The prolonged conflicts in the SR highlight the limitations of both EU and domestic rural development,' emphasized a local leader with extensive experience in national policy.

All respondents unanimously agreed that a regional approach has the potential to address the highly complex challenges of the SR effectively, and it is worthwhile to develop sectoral concepts with this perspective in mind. However, certain factors came to the forefront during the interviews that warrant greater emphasis. According to the majority, a crucial factor is preservation of the traditional agricultural system based on scattered farms, which is a characteristic of the region. An expert in the field shared the following insights: 'The agricultural landscape is evolving, and while some aspects are undoubtedly eroding, the Scattered Farm Development Program from 2011 has demonstrated that farms still hold promise. There exists a segment of society that values the rural lifestyle and agriculture. Supporting the scattered farming environment is also justified due to its synergistic effects on agriculture, landscape management tailored to the environment, and tourism.'

According to some, saving the scattered farm system could be one of the motivating factors of the partnership. Beyond the farming system's scope, most professionals see a potential solution in fostering local production communities, the food industry, gastronomy, and upgrading accommodation facilities. The interviews indicate that tourism is also a vital cooperation segment. The region's domestic and international appeal could be significantly enhanced by creating more prominent attractions, such as a 'horse park' or an extreme sports center. 'Consider the Western visitors who flocked here in the 1980s, finding solace in desert tourism. Reevaluating these opportunities could become a central concern of comprehensive policy,' noted one interviewee.

Over the past decades, numerous attractions have been revitalized but exist in isolation. There is insufficient funding available for modernizing accommodation, rendering the services unprofitable. 'The issue lies in the lack of significant regional cooperation or coordinated marketing efforts,' lamented another respondent.

Paradoxes of problems and future expectations

The results of the questionnaire corresponded with the interviewees' opinions. The assessment of the problems is similar, but the survey analysis shows an important lesson. The most significant takeaway from the questionnaire is that the respondents exhibited inconsistency when putting the region's problems and needs into words. Certain inconsistencies were evident even in the case of the most crucial developments during the 2014-2020 programming cycle. The responses indicated a significant emphasis on road investments in the previous funding period, followed by investments in industrial parks and developing nurseries, kindergartens, and medical facilities. This suggests that there is only a partial overlap between the identified problems and the investments made or that the scale of the issues does not correspond to the resources allocated. This contradiction is also evident in the future intentions expressed by the respondents (Fig. 3).

Several elements that have already been implemented continue to be prioritized by decision-makers, such as road construction, industrial parks, and the upgrading of institutions. Respondents often still identify general objectives typical of the 2014-2020 period. Despite the open questions, few respondents described region-specific needs, such as collaborative water management, social and farming cooperatives, or objectives related to rural revitalization. This indicates that municipalities think of localized, isolated investments that fit into the current standardized and uniform system without considering cooperation as a viable alternative. The intentions are good, but the majority focus on the 'prescriptive' funding-driven options instead of ideas based on internal resources.

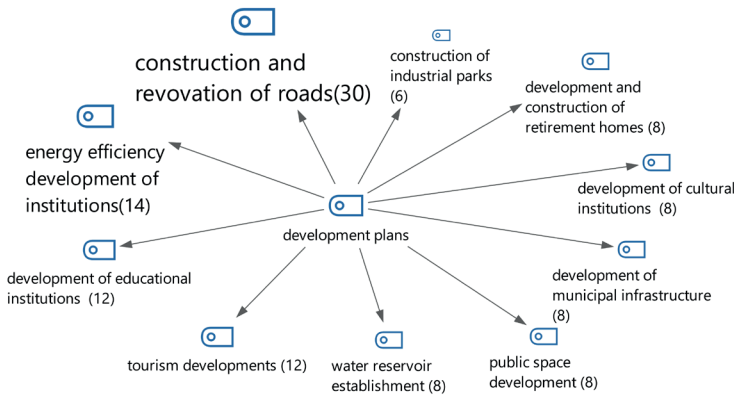

Figure 3. Future Development Intentions based on the online survey results
Source: survey.

Based on the responses received, it becomes apparent that there is not necessarily a causal link between locally identified challenges and feasible improvements. In other words, investments made at the municipal level will not necessarily resolve the region's most pressing problems. Roads and industrial parks do not play a role in mitigating water scarcity (and may even exacerbate it), and renovated nurseries and kindergartens cannot address the growing social issues and aging population. Respondents likely comprehend this, but they do not foresee any future changes and continue to favor infrastructure investments. Of course, some respondents acknowledge more area-specific needs, such as developing integrated municipal water management plans, constructing reservoirs, and expanding community spaces. However, these ideas are mentioned only sporadically in the responses.

Dangers of the funding-driven planning

Based on our experiences in the SR, one of the most crucial characteristics of the crisis of TD and regional policy is funding-driven planning, which ignores local needs, cooperation, and sustainability issues and focuses only on acquiring financial resources. Several interviewees detailed it, and the questionnaires also revealed that funding-driven planning is a severe problem. From the summary of the conversations and answers, we grouped the following findings (Table 1).

In most cases, the goal of local governments is to maintain or modernize their institutions and municipal infrastructure. This type of logic is a survival strategy or a forced path set by the available financial resources. Thus, the actors in the system move along the line of least resistance, planning those developments that are expected to receive financing, even if the sustainability of the projects is questionable. However, even in this way, local results do exist, so positive feedback is created. 'Thus, local governments will continue on this path until there is a change in the regulatory and institutional environment. summarized one expert.

Table 1. The dangers of funding-driven territorial development based on the case of the Sand Ridge

Issue	Dangers
Limited national autonomy	It is more difficult for the country to formulate its development strategies and priorities, as they must be adjusted to EU goals and requirements. Furthermore, the state cannot allocate substantial resources to start its comprehensive programs due to budget constraints traced back to the economy's performance and the mandatory co-payment of EU funds.
Limited local government autonomy	Due to the constant lack of resources, local governments plan and develop projects for which they can get financing. In addition, due to state centralization efforts, planning takes place with increasingly less power at the individual territorial levels.
Lack of community based planning	Development legislation requires the preparation of partnership plans and the documentation of their implementation, but at the same time, the regulations are permissive, so the negotiations take place primarily between local governments, counties, and the central government and its background institutions. In most cases, the participation of the local population and businesses is not meaningful.
Inconsistent regional policy	The projects supported by the centralized (and mostly economic-oriented) development policy are not always aligned with regional and local needs and priorities. This can lead to the non-coordination of policies at different levels and irrelevant programs that cannot reflect regional challenges.
Fragmented development, fragmented projects	Project-based financing can lead to patchy TD, where projects are implemented independently. In the absence of proper coordination, synergies will not take effect.
Lack of a future-oriented development approach	Focusing on quick project results and resource withdrawal leads to eliminating long-term planning.
Economic vulnerability	Dependence on central subsidies can lead to economic vulnerability, especially if these subsidies are suddenly reduced or stopped.
Focus on the infrastructure	Project-based financing often prioritizes the development of physical infrastructure against other equally important aspects of TD, such as improving human capital, social services, and community development.
Bureaucracy	Applying for and managing project-based financing can entail additional administrative tasks. This can be a severe challenge for communities with already limited capacity.
Corruption and lack of transparency	The management and distribution of large amounts of EU money can carry corruption risks, especially if the processes are not sufficiently transparent and controlled.
Dependency and unsustainability	Over-dependence of rural areas on external funding can lead to unsustainability. When project funding ceases, communities find it challenging to maintain the progress made by the projects.

Short-term thinking	In order to meet the milestones, decision-makers tend to prioritize activities that fit into a project-based approach and produce quantifiable indicators within the project's duration.
Administrative fulfillment	Community development projects often fall short of involving the most deprived social groups and instead focus on more accessible groups to meet administrative requirements (e.g., participation numbers).
Delay	Although the development programs mostly try to satisfy social needs, due to the slow planning and implementation processes, some needs are no longer current, or new demands are not met.

Source: own elaboration.

Summary and suggestions

Our present article and investigations on the SR provide deep insight into territorial development and a detailed, up-to-date view of an Eastern European region, which we think is gap-filling. Based on the results we obtained during the study of the SR, we agree with others that development policy has failures (Delputte & Orbie 2020). Many factors complicate territorial development in the region. The support system proved inflexible, and any developments relied on central funding, often not aligned with local or regional needs. In our view, the unified management of the SR was hindered because the EU's goals have long emphasized economic revitalization. At the same time, the environmental conflicts of such highly climate-sensitive areas were not considered a priority. When this attitude changed, for example, with the acceptance of the European Green Deal, Hungarian policy could not promptly adopt the new environmentally conscious, nature-conservation-oriented community goals.

Furthermore, another critical aspect of the region was that Hungarian rural policy was intensely focused solely on agricultural development. Consequently, the development opportunities at the regional level became severely constrained. Besides, the settlements are not able (and perhaps do not want) to think in terms of micro- and macro-regional cooperation but rather try to obtain as many resources as possible from the central government as isolated units. In our opinion, this system primarily helps the central government achieve its goal of focusing on the maximum acquisition of EU funds (Nyikos & Soós, 2020) without consideration of efficiency or utility.

Among the specific factors hindering the development of the research area, we highlight three key points: The first factor is the environmental challenges, which do not occur linearly or cyclically. In other words, water scarcity may be less or more pronounced depending on the weather conditions in individual years, and in some cases, a series of wet years may occur. As a result, the interests of the actors and businesses can change rapidly in the short term, and until a consensus is reached on the long-term challenge, it is not possible to work on a solution. This was a critical factor contributing to delays in various public administration organizations during the 2000s because there was no agreement between interested local groups, with conflicting interests in nature conservation and agriculture.

Secondly, we can highlight the lack of a complex territorial approach and multi-level planning as another critical factor. Quite simply, neither the regional developers nor the infrastructure planners could implement the comprehensive planning of the environmental, economic, and social problems, so the plans completed so far approach the region's development one-sidedly. Moreover, even if a comprehensive plan were to be created, it is doubtful whether it would be possible to implement it within the current regional development institutional system.

The third reason why the development of the SR has always been delayed is that the costs of implementation and maintenance (e.g., the needed infrastructure for water retention and replenishment) are too high for the central government, taking into account the multiplier effects of such a development. In the current planning process aimed at ecological water replenishment, they try to avoid this by focusing only on infrastructural developments and developing projects broken down into smaller areas.

For the development of the SR to realistically start, significant changes must be achieved in the three factors above. Regarding the first point, it is positive that a consensus has emerged that water retention and replenishment are necessary. Our second opinion is also not an insoluble problem, i.e., after establishing appropriate institutional and legal frameworks, it would be possible to implement a large-scale regional rural development program by strengthening the existing platforms and with a team of professionals with significant experience. Regarding the third point, progress could be achieved if there were a paradigm shift in the distribution of resources in the future. Territorially coordinated institutions, a fresh approach, and significant territorial programs based on domestic resources are needed, which, in addition to European goals and funds, also serve to solve specific domestic needs and issues. In light of the above, our work provides internationally relevant results and draws attention to the reform of the regional subsidies at the EU level.

We advocate for a paradigm shift in territorial development strategies for SR, as well as in national and EU-wide policies and planning. We emphasize the need for region-specific programs that account for territorial disparities to achieve this. Such programs would facilitate the coordination of local objectives and area-specific priorities, enabling settlements to independently or cooperatively select and implement projects from a predefined menu with greater autonomy than currently permitted. An essential condition is that the elements of the menu must be aligned with the national and EU goals, and their implementation directly or indirectly promotes them. Simultaneously, subsidies should be allocated to shared goals widely requested and supported by municipalities. This dual approach, encompassing bottom-up initiatives at the local level and top-down initiatives at the higher territorial levels (district, region, country, EU), would effectively leverage national and EU funding to implement territorial development strategies.

Admittedly, this paper also suffers from certain limitations since it was written from a Hungarian point of view. The mentioned criticisms may be less valid for EU countries with more substantial national resources. However, we believe that our findings are at least partially generalizable and point out problems not just for the Homokhátság but also for other Eastern European regions.

Our ongoing work, aimed at developing a territorial strategy for the *Homokhátság* has already represented the proposed paradigm shift. We hope this study also contributes and gives good clues for a change of perspective. As an organic continuation of our work so far, we will start a new research topic from 2023, entitled ‘Increasing Resilience through Bioregional Planning in the Sand Ridge’.

Acknowledgement

This paper was supported by the János Bolyai Research Scholarship of the Hungarian Academy of Sciences (BO/00353/21/10) and by the Eötvös Loránd Research Network (ELKH) project ‘Possibilities for Hungarian local climate adaptation’ (contract No: SA-51/2021).

We also remember Prof. Konrad Czapiewski: *There are people in our lives who never leave us. Konrad, you will always be our friend and colleague wherever you are.*

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