Analysis of public passenger transport service in Hungary from the perspective of transport poverty



Lea Kőszeghy and Ana Stojilovska HUN-REN Centre for Social Sciences 20.12.2024 From the perspective of transport poverty, efficient public transport proves to be the best solution to address this phenomenon. In this project, comprehensive analyses of the public transport situation are taking place in each partner country, namely Slovakia, Hungary, Croatia, and Slovenia. These desktop analyses prioritize enhancing rural area services.

1. How is public transport managed/organized/financed?

General information

Public transport management in Hungary is strongly state-focused. The largest service provider, MÁV-VOLÁN Group (MAV Group 2014) is an exclusively state-owned company, that provides the dominant part of passenger transport via railway and bus services.

As of the end of 2024, the national and regional level organization of public transport is still not tender-based, the Hungarian state repeatedly postponing the liberalization of passenger transport services under EU Regulation No. 1370/2007. Tendering of service provision is only present at the local level, in the case of municipalities undertaking this task (see under <u>Different systems of public passenger transport</u>).

Public transport development expenditure heavily favors road infrastructure, often neglecting railway infrastructure investments. Figure 1 shows that the investment in the development of road infrastructure has been significantly higher than the investment in rail.

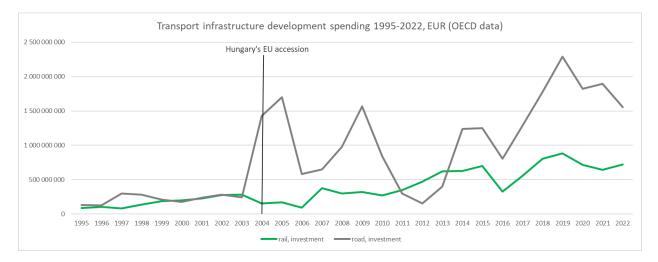


Figure 1: Transport infrastructure development spending 1995-2022 in Hungary

Source: (OECD n.d.)

Public road infrastructure development focuses mainly on the development of high-speed connections, while significant quality issues exist on lower levels of public road infrastructure, especially in economically disadvantaged regions. Public transport faces chronic underfunding, affecting maintenance, development, and operations.

Systematic abandonment of investment in railway infrastructure, together with underfinancing of public transport, with large public investments in public road infrastructure development, is likely to be a factor in the trend of increased individual car use (see under <u>Modal split of passengers</u>).

However, the availability and quality of public transport services show large spatial disparities. Budapest offers high-quality public transport compared to international standards, with recent improvements enhancing suburban connections to the city. On the other end of the spectrum, the availability and quality of public transport services in economically disadvantaged regions are poor, and systematically deteriorating, such as a low frequency of daily trips, increasing the dependency on car use. The spatial disparities in these terms are very significant, with important economic and social consequences. In underserved areas, households often rely on personal car use, leading to affordability challenges and the emergence of black-market passenger services, see <u>Bottom-up community solutions</u>).

The minimum requirements for passenger transport services are low. According to the Act on Personal Passenger Transport (Wolters Kluwer 2012) the mandatory minimum includes just three pairs of lines on weekdays, with holiday services merely recommended. These lines must provide a direct route to the central settlement of the microregion, a maximum of one stop to the county seat, a maximum of two stops to Budapest, and direct connections between neighboring county seats as well as between county seats and Budapest. This minimal service fails to provide adequate access to employment, education, healthcare, and other essentials for social integration and mobility. In certain cases, e.g. in remote areas, requirements for minimum services can be fulfilled via demand-driven services, (see under <u>Good practices</u>).

A recent tariff reform, introduced in March 2023, significantly altered the affordability of public transport. With the introduction of so-called country passes and county passes, costs of public transport decreased for a large number of potential travelers, and public transport became free for children up to 14 years of age. However, the tariff system carries some disputable components (e.g. its spatial arrangement based on administrative borders, fare increases in certain settings), therefore its long-term financial viability is unclear (Bucsky 2024), and does not address infrastructure and schedule issues. For more detailed information on this see under <u>Ticketing</u>.

Different systems of public passenger transport (urban, intercity, rail, other levels, school buses, other)

According to legislation on personal transport services (Act No. XLI. Of 2012) (Wolters Kluwer 2012) ordering of national, regional, and suburban public personal transport services is under the mandate of the relevant Minister, currently the Minister of Construction and Transport. As to local public transport, local municipalities, or associations of local municipalities may undertake this task, however, they are not obliged to do so, except for

the capital Budapest, where the Municipality of Budapest is obliged to order public transport service concerning its area.

Personal transport services via railway, ordered by the Ministry for Transport and Construction, are currently, based part of a 10-year public service contract valid from December 2023, operated by three companies: MÁV-START Zrt. (MAV Group 2019) (owned exclusively by the Hungarian state, operating the dominant majority of railway services, MÁV being an abbreviation of Magyar Államvasutak, Hungarian State Railways) MÁV-HÉV Zrt. (MAV-HEV 2020) (owned by MÁV Zrt., operating local railway services in Budapest and its agglomeration) and GYSEV Zrt. (Gysev n.d.) (in the majority ownership (71,8%) of the Hungarian state, and the minority ownership of the Austrian state, with railway services concerning specific Western areas of Hungary). No tender process was involved, as though EU Regulation No. 1370/2007 mandates that such services can only be contracted through open tenders, the Hungarian state delayed the implementation of this measure until the final allowable date (December 2033), thereby maximizing the period during which services can be operated by companies selected without a tender. In practice, this means that no liberalization of public railway transport services is expected within the next decade.

Regional public transport services via buses, ordered by the Ministry for Transport and Construction, are almost exclusively operated by Volánbusz Zrt. (with only four, small companies also providing such services) a state company whose ownership from 2021 was transferred to the MÁV Group (within which MÁV-START also operates). The public service contract of Volánbusz Zrt. is valid until the end of 2024, and the call for tenders for the forthcoming period required tenderers to provide an offer for the whole territory of the country, which made the application of other potential tenderers unrealistic, as reflected by the fact that the only company submitting a tender for the call was the MÁV-Volán Group.

Local transport in Budapest, ordered by the Municipality of Budapest, is organized by BKK Zrt. (BKK 2024a) (Budapest Transport Centre Zrt., owned by the Municipality of Budapest), and provided by BKV Zrt (also in municipality ownership), and to a limited extent, two additional providers, Volán and ArrivaBus (ArrivaBus n.d.).

Ordering local transport services in other municipalities is a non-compulsory task of local governments. Due to this, in some cities local public transport relies solely on the otherwise operating regional bus network. In others, however, the municipality does undertake the task. In local public transport, service provision is already tender-based (Ekés and Fejér 2023). Out of the approx. 140 municipalities with over 10.000 residents, Volánbusz (Volanbusz 2024) provides public transport in ca. 70. In several others, service providers are either municipality-owned companies or other companies independent from the local municipality.

The state does not participate in school bus provision specifically, even though the settlement structure (small settlements with no local kindergarten and/or school, settlements with wide homestead areas) makes provision of such service relevant in several areas.

Local governments and other organizations providing social services organize such services in certain areas, upon individual service contracts, sometimes in the framework of 'village or homestead guardian service' (see under <u>Good practices</u>).

In addition, 'village or homestead guardian services' have an important role in transport provision in remote areas. Such services do have a legal background in the Act on Social Services (Wolters Kluwer 1993), according to which local governments may provide 'village, or homestead guardian service' (falu- vagy tanyagondnoki szolgálat) (SzocOkos 2024) in small villages (under 1000, or in case of increasing resident number, up till 1100 residents), and in settlements with residents in outskirts or other areas with difficult accessibility. This service aims to address the challenges of limited access to services and public transport by meeting basic needs and supporting individual and community activities. As a condition for service provision, village/homestead guardians should have access to a motorized vehicle. In previous years purchase of motorized vehicles, mostly vans, for village and homestead guardian services was supported by the state budget and EU funds through consecutive tenders. In addition to on-site service provision, such vehicles may be used to provide transport services for residents of affected areas, based on a local decree. Such decrees may include transport services to provide access to healthcare, educational institutions, social services, and community events, as well as helping residents in administrative affairs, among others. Most village and homestead guardian services are provided by local municipalities (with a few exceptions where other organizations, such as NGOs or churches act as providers). All services of village and homestead guardians are free of charge. Also, the services may be used by all residents of affected areas, without any further (e.g. social) conditionality. However, transport services provided by them are limited to the purposes set in the local decree.

For disabled persons, based on the Act on Social Services, in the framework of 'supportive services' (SzocOkos 2021) aimed to assist disabled persons in independent living, social services providers may offer transportation (Ministry of Internal Affairs 2024). Such transportation services are financed by service fees paid by clients and public budget funding.

To reach out to the workforce in areas with poor public transport connectivity, some employers operate bus services to transport commuting employees by contracted companies, however, such services cannot be considered as public transport, thus will not be discussed further.

Management levels, operators (relations, roles public/private)

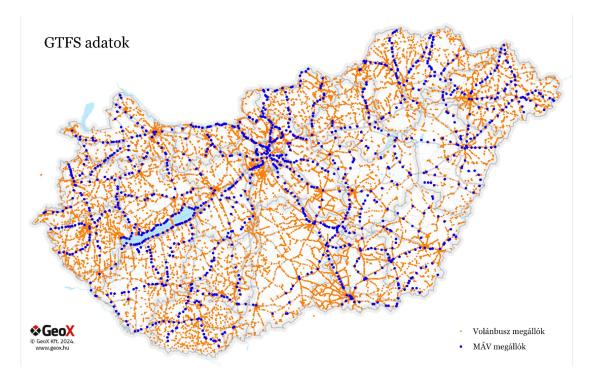
Hungary's public transport system is primarily publicly owned. As shown in Table 1, several public providers operate across different parts of the country, offering a range of services including rail, bus, and other modes of transport.

 Table 1: Public transport providers in Hungary

RAIL TRANSPORT	LOCAL TRANSPORT	INTERCITY TRANSPORT	SUBURBAN TRANSPORT IN BUDAPEST
MÁV MAGYAR Államvasutak Zrt (MAV Group 2014). It has 7275 KM Railway, 37 Thousand Employees, and 1.1 Million trains A year. Part of The Network is Owned and Operated by GySEV Győr- Sopron-Ebenfurt Zrt. (Gysev n.d.) Since 2021 MÁV And Volánbusz Zrt. (see later) Were Merged UNDER THE NAME MÁV-Volánbusz CSOPORT (Máv- Volánbusz Group).	 BKKBudapesti Közlekedési Központ Zrt. (BKK 2024a) organizes the public transport of Budapest, including buses, trams, trolleybuses, and metro. Local transport providers operate in other biggest cities, such as DKV Zrt (DKV 2024) in Debrecen (buses, trams & trolley buses), MVK Zrt. (MKV, n.d.) in Miskolc (buses and trams), SzKT Kft.(SZKT 2015) in Szeged (trams and trolley buses only; buses belong to Volánbusz), Tüke Busz Zrt. (Tuke Busz n.d.) in Pécs (buses), KT Zrt. (Kaposz Busz 2024) in Kaposvár (buses), T- busz Kft. (Kaposz Busz 2024) in Tatabánya (buses), V-busz Kft. (V-busz 2023) in Veszprém (buses), and KeKo (KeKo n.d.) in Kecskemét (buses). In most other cities and towns local transport is provided by Volánbusz companies that also provide intercity bus lines. 	Volánbusz Zrt. (Volanbusz 2024) is a network of transport companies operating intercity, international, and city bus lines in Hungary that provides services in 3,144 of Hungary's 3,155 settlements. Since 2021 MÁV and Volánbusz (see later) were merged under the name Máv-Volánbusz CSoport (Máv- Volánbusz Group).	MÁV-HÉV Zrt. (MAV-HEV 2020) became an independent (and integrated) railway company in 2016 which operates five suburban railroads around Budapest. BKK and MÁV- Volánbusz Zrt. also provide suburban transport in the Budapest suburban area.

Almost every Hungarian settlement has access to some form of public transport. However, in rural areas and small settlements – characteristic of the hilly North-Eastern, South-Western, and Western parts of the country – the frequency and scheduling of public transport often make it an impractical mobility option. As shown in Figure 2, there is a significant difference between the largest city of the country, the capital Budapest, further, yet smaller urban centers and the rest of the country, especially smaller settlements. These smaller settlements particularly in southern and eastern Hungary, have fewer train (in blue) and bus (in orange) services available. As seen later in Figure 5, there is a difference between 3 up to 30.000 daily trips of public transport services.

Figure 2: Location of MAV and Volanbusz stops



Source: (GeoX 2024b)

The capital city and the surrounding area are well-serviced, while these services are lacking or insufficient in smaller towns and rural areas across Hungary. The spatial disparities in these terms are very significant, with important economic and social consequences. For example, as shown in Figure 3, the eastern part of Hungary is the least developed, which aligns with the higher prevalence of transport poverty in this region.

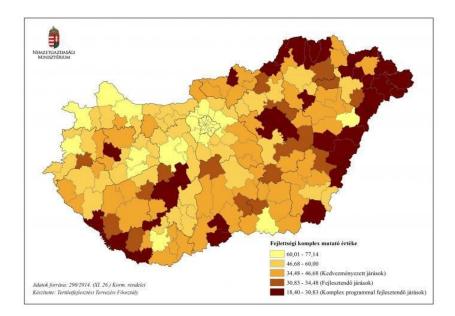


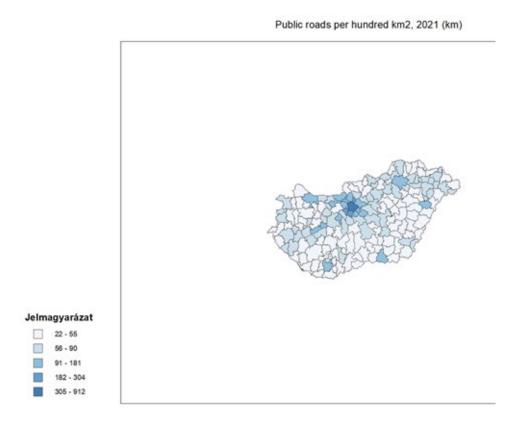
Figure 3: The complex development index of microregions

Source: (Wolters Kluwer 2014)

- Scope, share, and mix of passenger transport (passengers' kilometers, share of travels)

As visible under the <u>Modal split of passengers</u>, the trend of using passenger cars is on the rise. The state of road infrastructure also faces spatial inequalities along the lines of the development index presented in Figure 3. As observed in Figure 4, the capital city of Budapest has the highest number of km2 of public roads, while parts of eastern and southern Hungary have the lowest (Hungarian Central Statistical Office n.d.).

Figure 4: Public roads per hundred km2



Source: (Hungarian Central Statistical Office n.d.)

- Eurostat: Modal split of passenger transport

Hungary shows environmentally friendly trends through the reliance on public transport in the EU comparison. In particular, the use of trains is as high as the EU average, and the reliance on motor coaches, buses, and trolleys is higher (Eurostat 2024a). However, there is a worsening trend of a shift from public transport to car usage. For instance, the use of passenger cars has increased by 6% in the last 5 years (Eurostat 2024a). Despite that the public transport infrastructure has been expanded, for instance, the built length of local transport in kilometers has increased for most modes of transport in the period 2005-2022 (Hungarian Central Statistical Office 2024c). This investment was supported financially by

the European Regional Development Fund and the Cohesion Fund with more than 670 km of road, rail, tram, or metro line infrastructure built or reconstructed in Hungary (European Commission 2023). However, the use of public transport has decreased. From 2001 to 2023, public bus passengers in Hungary decreased by 35%, and overall, public transport usage (bus, tram, trolleybus, metro, and suburban train) dropped by around 20%, with passenger kilometers falling by 23% (Hungarian Central Statistical Office 2024b). In Budapest, public transport usage generally declined except for trolleys and the metro (Hungarian Central Statistical Office 2024b). A slight and more recent development is that the national interurban passengers increased in 2022 if compared to 2021 (Hungarian Central Statistical Office 2024a). Overall, despite that the modal split is not bad in international comparison, the trend of decrease in public transport use is not favorable.

According to Eurostat's indicator about the inability to afford a personal car (Eurostat 2024b) - while not the ideal measure of transport poverty, as public transport usage indicators have been discontinued - transport poverty is significantly higher in Hungary than the EU-27 average. In particular, households with three or more adults and with more than one child living in poverty are the most affected by transport poverty, with 51.9% impacted compared to the EU-27 average of 14.1%.

Sources of financing personal passenger transport

The main sources of financing of public transport are state budget subsidies (including direct subsidies, and subsidies for reduced-price tickets to compensate revenue losses for providers), ticket sales, and in the case of local public transport, local municipality sources.

For national, regional, and suburban public personal transport services the state provides budget sources. However, underfinancing (Bucsky 2023) is a significant issue, which leads to deteriorating service quality and a lack of necessary maintenance, and developments.

The state withdrew from financing local public transport in the previous years. Concerning local public transport in localities outside Budapest it refers to the fact that the relevant Act does not make such a task compulsory for local governments (according to the Act on Local Governments, for tasks ordered as compulsory for local governments by national law, the state should provide financing). As a result, this segment of public transportation strongly depends on local municipalities' own sources.

In addition, the state also withdrew financing from the Budapest public transport – although ordering such services is a mandatory task of the Budapest municipal government set by national law; therefore, the state should provide financing. State budget expenditures for Budapest public transport are constantly on the political agenda, but in the previous years – with tensions intensifying between opposition-led Budapest and the Orbán-government. The introduction of the new tariff system (Uj tarifa n.d.) in 2023 had a strong impact on ticket sale revenues of the Municipality of Budapest: as the new country and county passes became valid on the public transport system of the capital, the municipality's ticket sale revenues decrease, which is set to be compensated by a system of ticket sale revenue distribution

between the state and the municipality (based on passenger carrying capacity), but as of yet the result of such a financial reorganization is unclear (Bucsky 2024).

Transportation services for residents in remote areas provided by village and homestead guardians, as well as transportation services for disabled persons by social providers receive state budget support, however, the latter also involves service fees paid by clients.

- Ticketing (integrations, season tickets, monthly, yearly...)

Hungary's transport services can be described as 'affordable but of low quality'. Although the new tariff system has lowered prices for many user categories, the issue of quality improvement remains unaddressed.

On the 1st of March 2023, the new tariffs for MÁV and Volán flights came into effect, making it cheaper. The key reforms refer to ensuring that children under the age of 14, disabled, and large families travel for free; there is a 50% discount for people between the ages of 14 and 25; public employees enjoy a 50% discount; and there are new daily tickets at a very affordable price, the county and country (Hungary) pass (Hungarian Government n.d.). These reforms add to the already existing support for vulnerable groups such as retired persons. The entire list of relevant groups is reviewed in Table 2 and Table 3.

Table 2: Scope of validity of new daily passes

	COUNTY DAILY PASS	HUNGARY DAILY PASS
ON TRAINS	In 2nd class on MÁV-START (the passenger transport company of MÁV Zrt.), MÁV-HÉV and GYSEV trains where a seat reservation is not required TramTrain in the Szeged area (lines 1 and 1A)	On all MÁV-START, MÁV-HÉV, and GYSEV trains, but for trains with compulsory reservation (e.g. InterCity trains) a seat reservation is needed
On buses	Interurban VOLÁNBUSZ buses, a supplementary ticket might be needed	Interurban VOLÁNBUSZ buses, a supplementary ticket might be needed
Local transport	Metros/trams/buses in Budapest, Esztergom, Érd, Zalaegerszeg, and Csongrád (there could be exceptions)	Metros/trams/buses in Budapest, Esztergom, Érd, Zalaegerszeg, and Csongrád (there could be exceptions)

Source: (Uj tarifa n.d.)

While recent tariff reforms lowered public transport costs for many, the system still contains inconsistencies. The county passes benefit those traveling within a single county, while there is little consideration for those who commute across counties. For instance, there is no targeted pass to accommodate the latter, except the Pest pass which also includes Budapest. Therefore,

those traveling across counties have to hold passes for both counties. Additionally, there has been no infrastructure or schedule development, and fares have increased for individuals who do not use seasonal tickets or cannot afford them. Furthermore, it remains unclear how the reduced revenue from ticket sales will be financed.

2. Services for vulnerable groups (disabled, old, children, women, ethnic minorities, migrants...)

There are systematic problems concerning passenger transport services for vulnerable groups. The large spatial inequalities in services disproportionately affect people in rural areas with serious consequences for those who have difficulties in accessing alternative transport modes, especially old people, children, women, and ethnic minorities. The development of barrier-free infrastructure (both physical and infocommunication infrastructure), and obtaining barrier-free vehicles, though some development is ongoing, is lagging behind passenger transport services providers (see data later in the section). In addition, NGOs for disabled rights highlight that poorly maintained barrier-free infrastructure and vehicles often limit accessibility (Hrusko 2024). In the case of mainstream passenger service providers (i.e. not targeted at vulnerable groups) the quasi-only support, which is comprehensively available, is discounts.

Transport services for vulnerable groups also include village and homestead guardians' transport services and transport services provided for disabled persons by social service providers as part of supportive services (see <u>Good practices</u>). However, these services have limitations both in terms of capacity and in terms of purposes of availability. In the case of supportive services, service fees might also pose a limitation.

- Legislation requirements

According to the Act on the Rights of Disabled Persons (Wolters Kluwer 1998) disabled persons have the right to information provision in a suitable manner, concerning, among others, transport options (Paragraph 5). Also, according to the Act, public transport vehicles and passenger areas – including signaling and information devices – should be suitable for safe use by disabled persons (Paragraph 8). The Act also orders that transport planning should take into account the National Program for Disabled Persons.

- Accessibility of stations and stops, vehicles

In practice, accessibility of stations, stops and vehicles remains a huge issue due to the frequent unavailability of barrier-free infrastructure resulting from problems of maintenance and repair (see data and information in the previous part of the section).

Comprehensive information about services for vulnerable people, and the state of barrier-free environment in passenger transport services could not be found. According to non-comprehensive information, two-thirds of examined service provision sites of MÁV Zrt. (not all sites were examined) and 47% of vehicles running were not barrier-free at the end of 2023. Meanwhile, Hungary does have a National Implementation Plan (European Commission 2019) concerning the access of disabled persons and persons with impaired mobility to railway

services, according to Regulation 1300/2014/EU. According to non-comprehensive data concerning Volánbusz Zrt, based on the analysis of Access4you in 2022 (Access4you 2024), out of 127 examined bus stations (only a part of stations were examined) all provided some form of barrier-free infrastructure, however, none met the needs of all vulnerable groups. According to the same analysis (Kreszvaltozas 2022), 80% of locally running buses, and 43% of interregional buses operated by Volánbusz were physically barrier-free.

For village and homestead guardians it is not compulsory to use barrier-free vehicles (SzocOkos 2024), however, tenders for the acquisition of such vehicles tend to support the purchase of barrier-free cars.

- Discounts on ticket purchases

Various vulnerable groups as well as persons living in the surrounding areas of Budapest benefit from the new transport tariff (see Table 3). One aspect of the discount is age, as children until the age of 14, and elderly of the age of 65 or older can use public transport for free. There are discounts for regional travel for those aged 14-25. Another aspect is disability, applicable to blind persons, with a hearing disability, heavily disabled, and disabled war veterans, as well as one person that accompanies them. Job seekers, students, and pensioners until the age of 65 also receive a discount.

BKK + SUBURBAN BUS + HEV SUBURBAN DISCOUNTS	REGIONAL TRANSPORT DISCOUNTS – ON BUSES AND SUBURBAN RAILWAYS OUTSIDE OF BUDAPEST	
FREE TRAVEL: CHILDREN UNTIL 14, OVER 65, BLIND, HEARING-IMPAIRED, CHILDREN ON FAMILY ALLOWANCE, HEAVILY DISABLED, DISABLED WAR VETERAN, WAR WIDOW + ACCOMPANYING PERSON TO BLIND, DISABLED, ON FAMILY ALLOWANCE	Free travel: children until 14, over 65, pensioner, blind, hearing-impaired, children on family allowance, heavily disabled, disabled war veteran, war widow + accompanying person to blind, disabled, on family allowance	
PENSIONER PASS (UNTIL 65)	Household member of a veteran with 75%	
STUDENT PASS	disability, refugee, foreign 14-25 for 12 times a year + pupil with special needs and 2	
PUPIL PASS	accompanying persons + social institution residence/student/visitor + accompanying	
PASS FOR PARENTS WITH SMALL CHILDREN	person + 3 persons accompanying 6 pre- school children + 2 persons accompanying 6 children under 10 + 1 person with 6 students under 10 + 3 foster care children + 10	
PASS FOR JOB SEEKERS		
PEST AND HU PASSES FOR STUDENTS AND PENSIONERS	persons under 18 + parents with 3 children under the age of 18	

Table 3: Discounts for vulnerable groups in Budapest and its suburbs

90% discount - students/pensioners

50% discount – young between 14-25, an employee of HU budgetary institution

Source: (BKK 2024b)

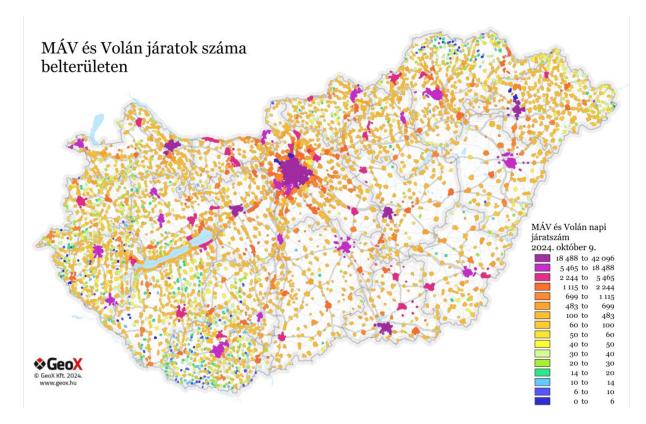
While the inclusion of various vulnerable groups in the new tariff reform is a positive step, there remains an imbalance in addressing those most affected by transport poverty—such as low-income individuals, single parents with children, and young women - see (Stojilovska 2023). The new reforms provide support for groups like disabled persons and children but lack targeted assistance for single parents and low-income individuals.

3. Services in rural areas

- State-managed measures

Out of nearly 3200 settlements, only a handful are inaccessible via railway or regional bus services. However, in rural areas and smaller settlements, the frequency of services and timetables do not make public transport a viable option for commuting and access to services.





Source: (GeoX 2024a)

In remote areas, village and homestead guardian services, operated mostly by local governments play a role in transport provision, however, with limitations concerning capacity and transport purpose (see Figure 5).

- Bottom-up community solutions

As a response to poor public transport access in economically deprived areas a market of personal transport services developed, mostly in the black market, as presented in the Transport Poverty Expert Workshop organized as part of the recent project (HUN-REN Centre for Social Sciences 2024). While this may provide a solution for some parts of the local transport demand, it brings significant economic, and social concerns: besides tax revenue losses it increases the vulnerability of affected residents and communities, invokes high extra costs and logistical challenges, and possibly even security issues for those using such services.

- Other good practices

Example 1: Home escort phone (Hazakísérő Telefon)

This practice echoes the concerns regarding travel safety of women and young adults in Hungary at night and early mornings which corresponds to the lowered frequency of public transport (or lack thereof) in these hours. The Home Escort Phone service in Hungary has been motivated by the unmet need to provide a support service for women who might find themselves in unsafe situations at night while getting back home (Váradi 2022). The service includes a telephone conversation; it is available from Monday through Saturday from 10 p.m. to 4 a.m., and on Sunday from 10 p.m. to 1 a.m.; and is for free (Home Escort Phone 2024). It can be even interpreted as a response to transport poverty, especially referring to its availability and safety dimensions.

Example 2: Telebusz, telefogas

This service is demand-driven operating in Budapest and the agglomeration to supplement and extend the existing network by reaching smaller communities in the suburbs (BKK 2024c). The on-demand service can be used with a BKK regular fare ticket or pass, and entitled persons can travel for free, and book the latest half an hour before the bus departure (BKK 2024c).

Example 3 – village and homestead guardian service

The services were established as a response to the fact that in Hungary significant population lives in small villages, outskirts of settlements, and some further difficultly accessible areas that are seriously underserved with services and institutions, while also having poor access to public transport. Such services have a legal background in the Act on Social Services (Wolters Kluwer 1993), according to which local governments may provide 'village, or homestead guardian service' (SzocOkos 2024) in small villages, and in settlements with residents in outskirts or other areas with difficult accessibility.

Such services aim to decrease disadvantages arising from lack of services and institutions and poor access to public transport and to ensure access to services to fulfill basic needs, as well as help in further individual and community needs. In addition to local governments, other organizations, such as churches and NGOs may also operate village and homestead guardian services, however, this is rarely the case. Basic tasks of village and homestead guardians include: meal provision, home care, provision of information concerning local community issues, ensuring access to healthcare – including transport services – as well as transport services for children to kindergartens, schools, and other destinations. All services of village and homestead guardians are free of charge and are available for all residents of affected areas.

Example 4: demand-responsive transport (DRT) service in the urban outskirts of a small city The on-demand bus service was introduced in Zalaegerszeg (Ekés 2022), one of the middlesized cities in Western Hungary, as a part of the revision of the city's public transport network planned by transport planning and consultancy company Mobilissimus (Mobilissimus n.d.). Problems addressed were, among others: hard to access, hilly outer parts of the city, narrow roads, lack of public transport, increasing individual car use, and transport poverty. In the test phases, the service was mostly used by students and pensioners, and client feedback was very positive. Unfortunately, at present the project is discontinued.

4. Proposed measures, and solutions for more efficient public transport (with a special focus on rural areas)

- Transport poverty and its socio-spatial consequences should be put on the political agenda. Easing transport poverty should receive the necessary political commitment, policymaking actions, and public resource provision.
- More research should be conducted concerning
 - the phenomenon of transport poverty (dimensions of the problem, types if relevant, measurement, affected households and areas, transport poverty in the context of complex poverty issues and spatial inequality);
 - transport needs of the affected population (with specific regard to hidden transport poverty i.e. under-consuming households);
 - issues of service providers related to transport poverty (with specific regard to the management and financing of services in such socio-spatial contexts); and
 - o potential solutions.
- Access to quality public transport services should be developed in currently underserved rural areas. In addition to infrastructure development and the revision of schedules, demand-driven solutions may be planned and tested to ease transportrelated problems in these areas.
- Public transport services should be made barrier-free both physically (including stations and vehicles) and in terms of infocommunication.
- Public transport solutions should be developed reflecting the needs of vulnerable persons.

- The tariff system requires revision to resolve inconsistencies, such as those related to county borders.
- Information on available services, ticketing systems, as well as the use of vehicles should be made easily comprehensible for all users. Literacy and digital literacy inequalities, and disabilities should be taken into account.
- When relevant, consider and address transport poverty as a dimension of complex poverty issues (low income, material deprivation, low education level, lack of vocational training, housing and domestic energy poverty, etc.).

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