



# MOBILITY POVERTY

## MOBILITY POVERTY OVERVIEW IN CENTRAL AND EASTERN EUROPE

### CROATIA

Project: Mobility poverty in CEE and SE Europe

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# RESEARCH BACKGROUND

Mobility poverty (MP) in some countries has been relatively unexamined and no clear definitions are available at EU or national levels. However, it is a problem that is becoming more pressing as fuel prices are rising and some countries face high car dependency thus commuting to work or for daily errands can become very expensive. The most important factor that causes MP is the household's income. But then the mobility expenses are lower if the family members have good access to public transport and can go on foot/by bicycle to do their daily errands. It seems that the low-income households in peripheral and (by public transport) less accessible areas might be the most affected and vulnerable groups.

Against this backdrop, project Mobility poverty in Central and Eastern Europe aims at reviewing the policies and assessing the state of mobility poverty in Bulgaria, Croatia, Hungary, Romania, Slovakia, and Slovenia. It also aims to raise awareness of policy- and decision- makers about the mobility poverty issue. The overview in selected countries will result in a 4-pager policy brief for each country. The policy briefs will be disseminated to 20-30 stakeholders in each country. These reports will be based on an accessible EU database and quality insight (e.g. interviews). These policy briefs will be a good basis for further project activities, especially stakeholder awareness and communication.

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# TABLE OF CONTENTS

- 1/** Mobility poverty definition and indicators (p.3)
- 2/** Situation in the field of mobility poverty (p.7)
- 3/** Mobility poverty policies and measures (p.12)
- 4/** Key actors in the mobility poverty field (p.15)
- 5/** Research gaps (p.16)
- 6/** Expert evaluation (p.18)
- 7/** Literature (p.19)

# 1/ MOBILITY POVERTY DEFINITION AND INDICATORS

## Mobility poverty definition

Mobility poverty has not yet been recognized as a specific problem and phenomenon<sup>1</sup> in Croatia, while it is still a nascent subject of interest for EU public policies. International tensions related to Russian aggression against Ukraine exposed the European countries' vulnerability to geopolitical risks and susceptibility to blackmail by non-democratic regimes. This underlines the necessity of implementing the ideas underlying the European Green Deal, not only to achieve greater resilience to climate but economic challenges as well. Urgent and comprehensive decarbonisation is shaping to be an imperative from the perspectives of security, sovereignty, and socio-economic stability, whereby it is necessary for the transition to be socially just in order to be sustainable.

Energy poverty<sup>2</sup> of individuals and households is one of the key elements of the energy transition plans defined by the "Fit for 55%" package (European Parliament and Council, 2021). Building on that, the working document of the European Commission and the Parliament of February 8, 2023, proposes an agreement on the establishment of the **Social Climate Fund** (SCF, 2023), crucial for a just green transition while protecting particularly vulnerable groups with a new emphasis on mobility poverty.

**Transport poverty** was thus defined for the first time at the EU level as "individuals' and households' inability or difficulty to meet the costs of private or public transport, or their lack of or limited access to transport needed for their access to essential socio-economic services and activities, taking into account the national and spatial context". It is further stated that "transport poverty can usually be caused by one or a combination of factors such as: low income, high fuel expenditures, lack of affordable or accessible private or public transport. Transport poverty may particularly affect individuals and households in rural, insular, peripheral, mountainous, remote, and less accessible areas or less developed regions or territories, including less developed peri-urban areas and the outermost regions" (SCF, 2023).

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<sup>1</sup> In Croatian academic literature, a few pioneer papers are exploring the related concept of "transport disadvantage" within the framework of transport geography (Gašparović and Jakovčić, 2014, Gašparović, 2016). Furthermore, a research project by The Institute of Social Sciences Ivo Pilar "Transport accessibility as a factor in the demographic revitalization and de-peripheralization of Croatia" is also underway, headed by dr. sc. Ivo Turk.

<sup>2</sup> "Energy poverty" became an established phrase in public policy documents and became known to the general public to a considerable extent thanks to the advocacy work of civil society (eg. DOOR association).

The proposal of the agreement on the establishment of the SCF foresees that by 30th June 2025, each EU member will draw up its own Implementation Plan<sup>3</sup> wherein measures are proposed, and the budget is allocated. **Croatia** has an indicative allocation of over one billion Euros for the period 2026-2032. Therefore, it can be expected that the proposed definition of transport poverty will be gradually transferred into Croatian regulations.

Even without a unified definition at the level of **Croatian public policies**, the concept of traffic poverty is reflected in numerous documents<sup>4</sup>, usually in the context of causes or symptoms of general poverty, social exclusion, regional inequalities, demographic trends, discrimination, and threats to human rights.

For example, the Strategy for Combating Poverty and Social Exclusion in the Republic of Croatia for 2021-2027 (MRMSOSP, 2021) doesn't explicitly mention the term "transport poverty", but it is obvious this issue permeates all the key program areas: social care, health care, upbringing and education, regional development. Furthermore, in a series of reports, the Office of the Ombudswoman warns of unequal access to various services and difficulties exercising their rights regarding the population of "transport-disconnected" or "isolated areas". Other Ombudspersons - for children<sup>5</sup>, persons with disabilities and gender equality<sup>6</sup> - warn of similar issues in their reports.

## Indicators of mobility poverty

Since there was no definition of the term "transport poverty" until now, there are no established **statistical indicators** for monitoring this phenomenon at the national level. However, the data of the Croatian Bureau of Statistics (DZS) using the Eurostat methodology illustrate certain trends, as well as certain data

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<sup>3</sup> The workgroup writing the Croatian SCF Implementation Plan should necessarily include a subgroup for a multidisciplinary approach to the problem of traffic poverty in Croatia. It is crucial to identify all the stakeholders relevant for the energy transition in the transport sector in the Croatian context, to inform them in a timely manner and to involve them in the elaboration of proposals for SCF implementation measures, so that the measures would be purposeful and enforceable.

<sup>4</sup> The approach to this topic has until now been fragmented across different sectors which imposes the necessity of implementing a uniform definition in Croatian legislation and policy documents, which should contribute to more coherent policies, more harmonized measures and more consistent monitoring of their effects.

<sup>5</sup> In her report for 2019, the Ombudsperson for Children highlighted, among other things, the uneven provision of free bus transportation for pupils in secondary and primary schools (PD, 2019: 59). This is a problem that could be mitigated in some regions by encouraging the pupils to use bicycles should the conditions be safe enough, which is not the case in many areas.

<sup>6</sup> The Ombudsperson for Gender Equality repeatedly warns of the "extremely high risk of economic dependence of women on other family members", and "the need to introduce stronger measures to encourage the inclusion of women in the labor market" (PRS, 2019: 331). These warnings should be seen especially in the light of the fact that in Croatia, about 1.37 million men have a car driver's license against 1.01 million women (MUP, 2021), which means that about 360 thousand fewer women than men have the mobility independent of public transport. At the same time, the use of bicycles as a means of transportation is severely limited by the poor availability of adequate bicycle infrastructure, especially outside bigger cities.

collected within the framework of other institutions. The table below shows the basic overview of secondary indicators as an insight into the issue of "transport poverty".

It is important to emphasize that these indicators do not capture the **multidimensionality** of the phenomenon so there is a need for the construction of an internationally harmonized set of composite indicators.

**Table n°1: Review of available secondary indicators**

Indicators	Source	Reference periods	Link
Persons who cannot afford a regular use of public transport by age, sex and income group	EU-SILC	2014	<a href="https://ec.europa.eu/eurostat/databrowser/view/ILC_MDES13B/default/table?lang=en&amp;category=livcon.ilc.ilc_md.ilc_mdes">https://ec.europa.eu/eurostat/databrowser/view/ILC_MDES13B/default/table?lang=en&amp;category=livcon.ilc.ilc_md.ilc_mdes</a>
Persons who cannot afford a regular use of public transport by employment status and income quintile	EU-SILC	2014	<a href="https://ec.europa.eu/eurostat/databrowser/view/ILC_MDES13A/default/table?lang=en&amp;category=livcon.ilc.ilc_md.ilc_mdes">https://ec.europa.eu/eurostat/databrowser/view/ILC_MDES13A/default/table?lang=en&amp;category=livcon.ilc.ilc_md.ilc_mdes</a>
Share of transport energy expenditures out of total expenditures of the 1st income quintile population	EU - DG ENER	2014, 2018	<a href="https://eepi.openexp.eu/eepi.html">https://eepi.openexp.eu/eepi.html</a>
Distribution of consumption expenditures - Transport	Croatian Bureau of Statistics - DZS (Statistics on Income and Living Conditions survey, SILC <sup>7</sup> )	2008 - 2011, 2014, 2017, 2019	<a href="https://podaci.dzs.hr/hr/arhiva/osobna-potrosnja-i-pokazatelji-siromastva/rezultati-ankete-o-potrosnji-kucanstava/">https://podaci.dzs.hr/hr/arhiva/osobna-potrosnja-i-pokazatelji-siromastva/rezultati-ankete-o-potrosnji-kucanstava/</a>
Percentage of persons living in household that cannot afford selected durables - Car	DZS (The Household Budget Survey, HBS <sup>8</sup> )	2010-2020	<a href="https://podaci.dzs.hr/hr/arhiva/osobna-potrosnja-i-pokazatelji-siromastva/rezultati-ankete-odohotku-stanovnistva/">https://podaci.dzs.hr/hr/arhiva/osobna-potrosnja-i-pokazatelji-siromastva/rezultati-ankete-odohotku-stanovnistva/</a>
Persons with a driver's licence in Croatia	Croatian Ministry of the Interior (MUP)	2005-2021	<a href="https://mup.gov.hr/pristup-informacijama-16/statistika-228/statistika-mup-a-i-bilteni-o-sigurnosti-cestovnog-prometa/bilteni-o-sigurnosti-cestovnog-prometa/287330">https://mup.gov.hr/pristup-informacijama-16/statistika-228/statistika-mup-a-i-bilteni-o-sigurnosti-cestovnog-prometa/bilteni-o-sigurnosti-cestovnog-prometa/287330</a>

<sup>7</sup> The Household Budget Survey data is collected according to the international classification COICOP (Classification of Individual Consumption by Purpose)

<sup>8</sup> Statistics on Income and Living Conditions Survey data is collected as part of EU-SILC survey (European Statistics on Income and Living Conditions)

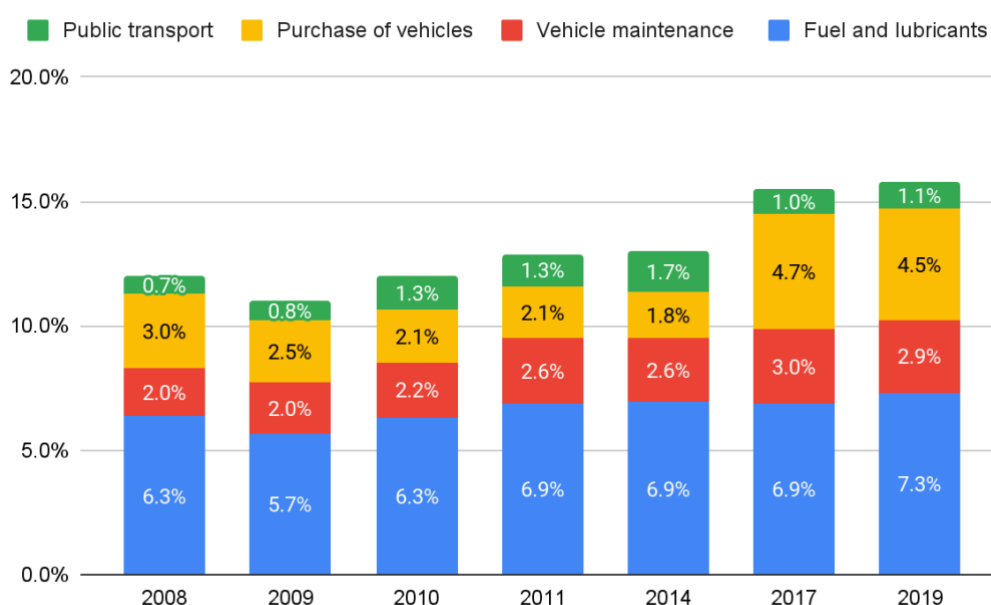
## MOBILITY POVERTY OVERVIEW IN CROATIA

Indicators	Source	Reference periods	Link
Passed driver's licence exams by gender	Croatian Auto Club (HAK)	2010-2021	Aggregated data available on request

## 2/ SITUATION IN THE FIELD OF MOBILITY POVERTY

In the absence of appropriate composite measures, the closest applicable variables are collected through **surveys** of general well-being, poverty, or social exclusion: income-based<sup>9</sup> or consumption-based<sup>10</sup> assessments. "Indicators of poverty and social exclusion" from The Household Budget Survey (HBS) include expenditures for the purchase of vehicles and spare parts, expenditures for vehicle repairs and fuel purchases, and expenditures for public transportation.

**Figure n°1: Transport expenditures as % of total household expenditures, 2008-2011, 2014, 2017, 2019.**



Source: DZS

The total consumption in the **"transport" category** is continuously growing, which means that transport is becoming an increasing burden on the household budgets. Furthermore, it is evident that a part of the population has renewed their fleet, while the share of spending on public transport is decreasing. When the data for the Covid period is also analysed, the unfavourable trends in the use and financial unsustainability of the public transport system will be even more visible.

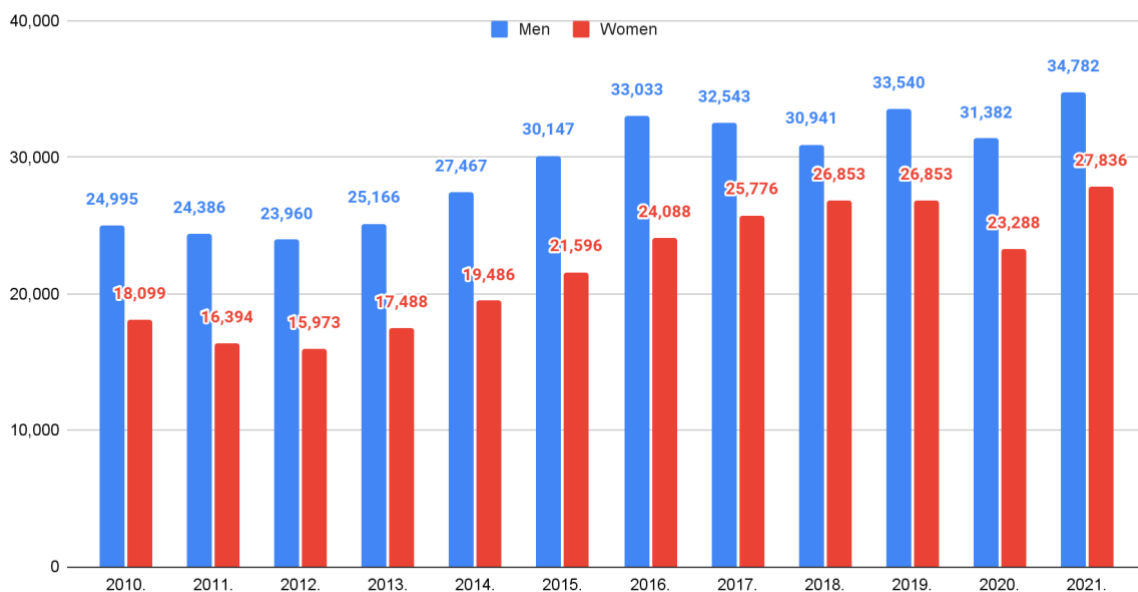
<sup>9</sup> Statistics on Income and Living Conditions Survey (DZS, 2010-2020).

<sup>10</sup> The Household Budget Survey (DZS, irregular).



Transport policies are not at all gender neutral, even though they can be presented as such. **Women** are in a particularly vulnerable situation in terms of dependence on a family member with a driver's license, especially in rural areas and among the elderly population. Croatian data on passing driving tests indicate that men still make up the majority of new drivers, i.e., they make up a disproportionate share compared to women in the population (HAK, 2022).

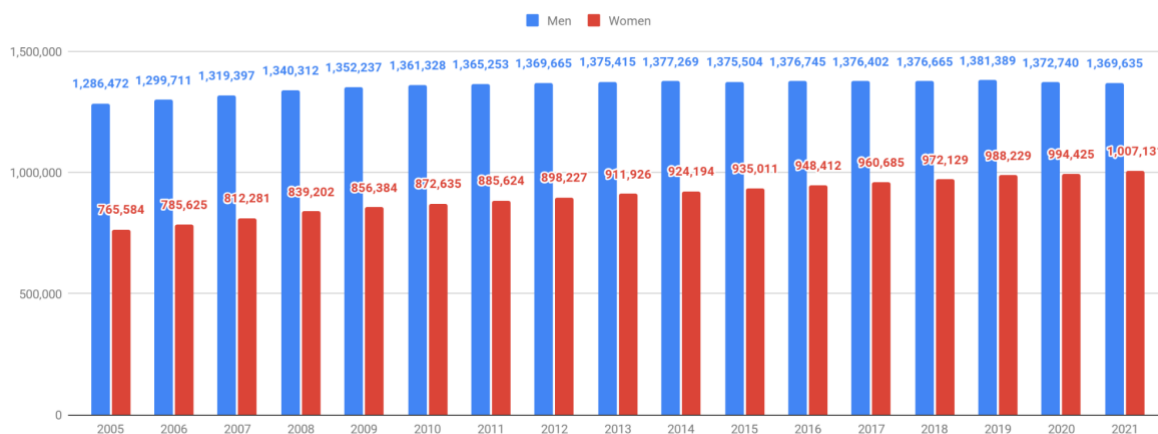
**Figure n°2: Passed driver’s licence exams by gender, 2010-2021.**



Source: Croatian Auto Club

At the same time, the total number of male drivers is stagnating, while the number of female drivers is continuously increasing (MUP, 2022).

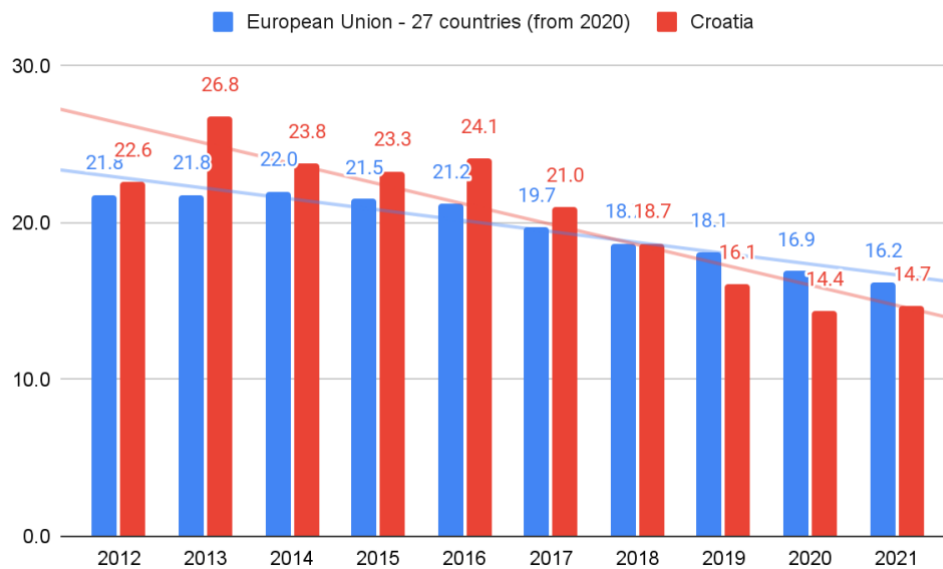
**Figure n°3: Persons with a driver’s licence in Croatia.**



Source: MUP

This reveals a marked imbalance in the gender distribution of drivers in the population: although more men pass driving tests, the total number of male drivers remains similar. This can be explained by the equal rate of death of the male population with a driver's license, or their loss of a driver's license, or emigration. On the other hand, women dying, emigrating, or losing their licence doesn't reduce the number of total women drivers, which indicates they have traditionally not taken the driving test. This means that they depended on male family members for transportation, and still do to a significant extent, which underlines the necessity of investing in equal opportunities for mobility without car dependency. Mobility options are a prerequisite for personal autonomy and economic independence among women, especially for the elderly population and rural population without accessible public transport.

**Figure n°4: Persons who cannot afford a personal car: % of households below 60% of median equivalised income.**



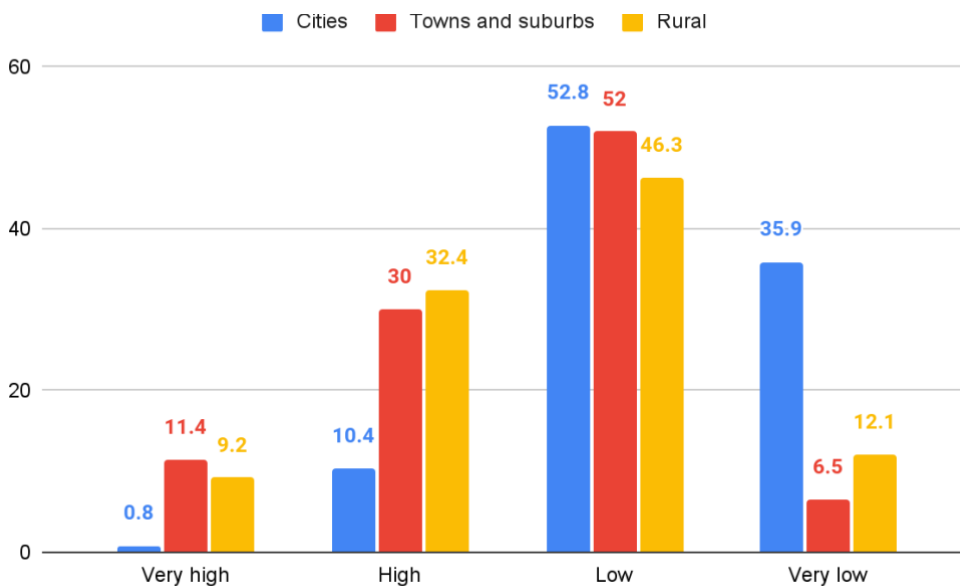
Source: EU-SILC

The recent reduction (faster than the EU average) in the share of citizens who do not have the option of using a car is good news for them in the short term, but in the long term it may be a sign of potential social risks regarding the introduction of a **carbon tax** on fossil fuels, given the predictable resistance to the attack on their (newly acquired) standard and autonomy. In this context, we point to a kind of "culture shock" between the narrative of necessary climate adaptation and the obviously car-centred Croatian transport system. Since the beginning of the Russian invasion of Ukraine, the Croatian Government artificially controls fuel prices at the pumps, which represents a form of subsidy in relation to the market

price, while the SCF implies the introduction of additional taxes on fuel as a key part of the implementation of energy transition.

Furthermore, the **availability of public transport** is so low in some areas that some rural residents don't even recognize their underprivilegedness, that is, the possibility that they could possibly fulfil their daily needs for mobility using some form of public transport. The following graph highlights the paradox that residents of rural areas are less dissatisfied with the lack of access to public transport than those in medium-sized and larger cities.

**Figure n°5: Level of difficulty accessing public transport, % distribution by urbanisation.**



Source: Eurostat - ILC\_HCMP06

Additionally, research into the concept of **"forced car ownership"** (Mattioli, 2017) suggests that households with limited financial means, who are forced to buy and use cars due to traffic isolation and the absence of alternative forms of mobility, are more susceptible to material deprivation, economic insecurity, and vulnerability to fluctuations in the price of fossil fuels.

We can observe that the **transition to clean vehicles** will not be smooth and without resistance, since low-income citizens will not be able to afford to switch to low-emission cars for a long time, which implies social risks and political resistance to the carbon tax. One should keep in mind, for example, that social security benefits (guaranteed minimum compensation) are tied to the value of

the car, up to HRK 20.000 (€2.656), which is far below the value of any low-emission car.

## 3/ MOBILITY POVERTY POLICIES AND MEASURES

When it comes to measures to alleviate transport poverty in Croatia, it is encouraging that there's no need to reinvent the wheel. A number of **complementary measures** to reduce forced car dependency can roughly be classified into several basic categories:

- ◆ Subsidizing public transport
- ◆ Subsidizing clean vehicles
- ◆ Demand Responsive Transit
- ◆ Shared mobility
- ◆ Virtual mobility

**Subsidizing public transport** is the most common and widespread financial measure tailored towards various vulnerable groups (children in primary and secondary schools<sup>11</sup>, students<sup>12</sup>, people with disabilities<sup>13</sup>, socially vulnerable, etc.), as well as to Areas of Special State Concern<sup>14</sup> (e.g., subsidized ferry transport for island residents; Croatian Parliament, 2022). There is a lot of room for improvement in the connection of information silos, for example through the creation of a single system for processing one's right to subsidy on different grounds together with the provision of travel information (e.g., mobility information hub). In addition to public transport, in Croatia, the purchase of "clean vehicles" such as **electric cars is subsidized** once a year using the Fastest Finger First criterion (instead of the census), which paradoxically does not include bicycles (ordinary, cargo and electric; Croatian Parliament, 2021).

<sup>11</sup> By the decision of the Croatian Government, certain groups of high school students are subsidized in full or in the amount of 75% of the cost of transit by train or bus based on a number of criteria such as the distance of the place of residence from the station, monthly ticket prices, daily ticket prices, etc. (Croatian Government, 2022). In addition, a pilot project is underway providing free train transit for all destinations in Croatia for all pupils and persons under the age of 18 (HŽPP, 2022).

<sup>12</sup> From 1st of October 2022, on the occasion of the European Year of Youth, a pilot project of more affordable transport for full-time students was launched, which enables unlimited use of rail transport for around 113,000 full-time students in the territory of the Republic of Croatia at a single monthly ticket price of HRK 75 (€9.95) with the duration until 30th of September 2023, with financing from the Resiliency and Recovery Plan (HŽPP 2022b). A 50% discount is valid for part-time students on all lines (HŽPP, 2022c). Some cities and counties co-finance 25-100% of the price of train transportation between the place of residence and study (HŽPP, 2023).

<sup>13</sup> A convincing overview of the unevenness of co-financing of transit for people with disabilities in the vicinity of Zagreb was provided by the Zagreb Association of Disabled Workers: Brdovec Municipality does not co-finance ZET transport for PWDs at all, while the nearby Jakovlje Municipality covers that and additionally co-finances tickets for Presečki Bus (UIRZ, 2023).

<sup>14</sup> There are three groups, namely the first and second groups depending on the circumstances arising from the consequences of aggression against the Republic of Croatia, and the third group is determined according to three criteria: the criterion of economic development, the criterion of structural difficulties, the demographic criterion" (Croatian Parliament, 2008).

As a rule, subsidizing transit tickets means nothing in areas where public transport is non-existent, while the expansion of the public transport network is limited by cost-effectiveness and sustainability criteria. Between the unattainable aspiration that every settlement has public transport, and the unsustainable solution of subsidizing a (low-emission) car and (clean) fuel for every vulnerable household, we consider it necessary to develop hybrid models of Demand Responsive Transport, but also to reduce the very need for mobility through virtual services (e-Citizens) and by expanding the spectrum of services available "at the doorstep" (doctor's home visits, deliveries, notary public, etc.).

**Demand Responsive Transport** is present in different forms in different sectors, such as medical transport for patients with mobility difficulties<sup>15</sup>, local transport for wheelchair PWDs<sup>16</sup> or small-town taxi as part of a utility service without a profit imperative<sup>17</sup>. Such services undoubtedly require stronger financial support in order to expand the circle of users and standardize the service at the level of the Republic of Croatia.

**Shared mobility** is part of the growing trends of commercial business models (ride-hailing apps or car-sharing services), but also of public-private partnerships (bike-sharing systems<sup>18</sup>). Unfortunately, there is still not a single city or wider region with a fully implemented system of integrated passenger transport with a single system for buying tickets, information about transfers and a unified timetable independent of the carrier on a particular section.

**Virtual mobility** is predicated upon the use of ICT to provide services and activities virtually without physically leaving one's home, such as ordering food or virtual meetings, thereby reducing the need for travel. The most important public service of this type in Croatia is e-Citizens, a portal of digital services provided by public sector bodies for citizens and business users (issuance of documents, certificates, etc.). When relying on this type of solution in the context of public policies, it is necessary to address the "digital inequality" that particularly affects the elderly (inadequate IT literacy, unavailability of computers and the Internet). Strong education and access to the e-Citizens system through computer

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<sup>15</sup> The right to medical transport in order to use health care covered by mandatory health insurance is provided for insured persons who are: immobile, have difficulty moving and have a recommendation against moving due to the nature of their disease (HZZO, 2023).

<sup>16</sup> Custom transport for PWDs in special ZET vans is eligible exclusively for people in wheelchairs (ZET, n.d.).

<sup>17</sup> From May 2022, the first eco-taxi in the City of Ilok began operating as a new service of the municipal utility company Kom Ilok d.o.o., with the price list establishing a single price for all rides in the city area and its surrounding settlements, and an additional single price for transportation to the City of Vukovar as the closest important administrative centre. In the absence of regular public transport, this form of subsidized Demand Responsive Transport enables local mobility for citizens who can't use their car (Kom Ilok, 2022).

<sup>18</sup> Municipal utility company Split Parking d.o.o. in partnership with Nextbike Sustav javnih bicikala Ltd. launched the largest and most successful program of bike-sharing in Croatia with 51 stations and 280 bicycles (Split Parking, 2019).

terminals in libraries or branches of the Post Office, banks and public administration offices could alleviate these barriers.

Non-financial measures that we recommend based on the literature review<sup>19</sup>:

- ◆ Integration of existing systems
- ◆ Education of (older) citizens to acquire new habits (applications, public transport, bicycles)
  - + Information hub presenting available opportunities.

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<sup>19</sup> A comprehensive critical review of the issue of mobility poverty and overview of solutions are covered in the scientific monograph "Re-thinking mobility poverty" (Kuttler & Moraglio, 2020).

## 4/ KEY ACTORS IN THE MOBILITY POVERTY FIELD

	Institution	Organisational unit / Name and last name	Relevance
State institutions that define the legal and financial framework	Ministry of Maritime Affairs, Transport and Infrastructure	1) Independent Sector for Foreign and European Affairs and Public Relations. 2) Directorate for EU funds and Strategic Planning	Contractor of analyses, drafter of regulations, influence on the legislative framework (especially the public passenger transport system, but also the management of EU funds).
	Ministry of Labour, Pension System, Family and Social Policy	Directorate for Programs and Projects	Subsidizes transport tickets of socially vulnerable groups
	Ministry of Science and Education	Uprava za potporu i unaprjeđenje sustava odgoja i obrazovanja	Subsidizes transport tickets for primary and secondary school pupils
	Ministry of Justice and Public Administration	Independent Sector for Digitalisation of Justice and Public Administration	e-Citizens platform
	Ministry of Economy and Sustainable Development	Directorate for Climate Activities	Develops programs and measures for mitigating the effects of the climate crisis
	Environmental Protection and Energy Efficiency Fund	Energy efficiency sector	Subsidising the purchase of "clean vehicles"
	Central State Office for Administration	Sector for coordinating the development of digital society	State administrative organization with the task of monitoring and improving the development of the digital society and harmonizing with the guidelines and regulations of the European Union in the field of the digital society and economy
State institutions that work within the legal and financial framework	Ombudswoman of the Republic of Croatia	dipl.iur. Tena Šimonović Einwalter	
	Ombudswoman for Persons with Disabilities	dipl.oec. Anka Slonjšak	
	Ombudsperson for children	dipl.iur. Helenca Pirnat Dragičević	
	Ombudsperson for Gender Equality	dipl.iur. Višnja Ljubičić	
	Croatian Bureau of Statistics (DZS)	Statistical Methodologies, Quality And Customer Relations Directorate	Collects and disseminates all indicators relevant for evaluation and monitoring, according to the Eurostat methodology
Research and scientific institutions	Department of Geography at the Faculty of Science, University of Zagreb	dr.sc. Slaven Gašparović	Doctorate and research on the topic "traffic marginalization"
	Faculty of Law, University of Zagreb	dr.sc. Zoran Šučur	Expert in the field of poverty and social exclusion
	Sveučilište Sjever, Odjel za logistiku i održivu mobilnost	dr.sc. Predrag Brlek	Expert in the field of sustainable mobility, ITS and mobility as a service
	Faculty of Transport and Traffic Sciences, University of Zagreb	dr.sc. Marko Šoštarić	Dean of the Faculty, expert in the field of transport planning
	Department of Sociology at the Faculty of Humanities and Social Sciences, University of Zagreb	dr.sc. Ksenija Klasnić	Expert in the field of mixed methodology of social research and research and sampling of minorities and hard-to-reach populations
	Faculty of Agriculture, University of Zagreb	dr.sc. Nataša Bokan	Expert in the field of socioeconomics, gender analysis and rural development
	Institute of Ethnology and Folklore Research, Zagreb	dr.sc. Orlanda Obad	An expert in the field of monitoring the implementation of rural development measures
	Institute for Social Research in Zagreb	dr.sc. Branko Ančić	Head of the research part of the project METAR to a Better Climate (Network for education, transition, adaptation and development)
Other stakeholders	DOOR (Society For Sustainable Development Design)	Miljenka Kuhar, mag.soc.	Founder of the "Centre for addressing energy poverty"
	ODRAZ (Sustainable Community Development)	Lidija Pavić-Rogošić, dipl.ing.arh.	Expert in the field of sustainable development
	Pro Rail Alliance	Ante Klečina, mag.ing.traff	Coordinator of the "Pro Rail Alliance" NGO, expert in the field of sustainable mobility
	IPE Croatia	Vedran Horvat, mag.soc	Research and educational organisation that designs alternative development models and innovative institutional frameworks for democratic political and economic transformation of society
	FES Croatia	dr.sc. Sonja Schirmbeck	Croatian office of the Friedrich Ebert Foundation which organizes networking and education of actors in the field of social justice, climate crisis, energy transition, etc.



## 5/ RESEARCH GAPS

There is no usable index or variable that would describe the **multidimensionality** of the phenomenon of transport poverty in a way that respects the diversity of contexts, e.g., to include people who do not have the possibility of use of a car or adequate public transport. At the same time, the "possibility of use" should be viewed from both a financial and a practical perspective and include cases such as the complete absence of public transport or its inadequacy to the needs of individuals.

In order to solve the problems of multidimensionality and the construction of composite indicators, it is necessary to ensure the availability of **secondary indicators** through regular data collection. For example, the Household Consumption Survey has a highly irregular periodicity, and the high-quality EU-SILC particles shown in Table 1 are available only for 2014.

**Data granularity** is also a problem, as detected in the Strategy for Combating Poverty and Social Exclusion in the Republic of Croatia: "direct estimates of poverty from the Households Budget Survey are reliable only at the NUTS-2 level. This complicates the analysis of poverty at more disaggregated levels since the reliability of direct assessments at lower levels is questionable. The problem affects the development of all public policies aimed at combating poverty and social exclusion, given that it is difficult to assess the true situation at the local and regional level from partial data." All of the above also applies to indicators relevant to transport poverty.

For all indicators presented in Table 1, it is necessary to enable access at the level of the **smallest statistical units** (e.g., households) for more detailed processing depending on the theoretical concepts of the connection between poverty and (awareness of options) mobility. This would open the possibility for researchers to conceptualize and test composite indices, some of which after scientific validation could be established as a European standard for monitoring transport poverty on comparable data sets from across the EU. For example, a group of authors is preparing a scientific paper for Spain using a methodology<sup>20</sup> that could also be tested on Croatian data, given that the uniformity of all measured socio-economic and demographic categories according to Eurostat guidelines enables the calculation of comparable composite indicators at the household level.

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<sup>20</sup> The methodology and preliminary results were presented as part of the initiative to establish a Transport Poverty Hub at the European Climate Foundation, authors: Eva Alonso-Epelde, Xaquín García-Muros and Mikel González-Eguino.

We recognize that the **ETEPI index** has a great potential but is currently unusable due to significant limitations in the availability of the data on which it is based.

Established statistical monitoring methods need to be consistently implemented, but also supplemented - we underline the necessity of **in-depth qualitative insights** into the lived reality of the affected target groups from a sociological, anthropological, or ethnographic perspective.

## 6/ EXPERT EVALUATION

We find that the main risk in integrating and strengthening the existing services stems from inadequate management capacity at all governance levels. These are followed by corruption risks arising from the influence of interest groups, either in attempts to dilute some necessary measures (resistance to changing the status quo, for example in bus transport) or to tailor financial resources to measures of questionable purpose and measurability.

In addition to the mentioned risks, in response to the complexity of the challenges and the number of stakeholders, we propose establishing an independent institution of Commissioner or Ombudsperson for the issues of energy and transport poverty. An alternative solution would be to strengthen the capacity of the Main Ombudsperson's Office and other Ombudsperson's Offices with significant financial support for monitoring the issues of energy and transport poverty. Conventional supervisory institutions for controlling the use of European funds, such as SAFU and MRRFEU, are using the usual project indicators for monitoring, but when it comes to the SCF, we propose that Ombudsperson's report becomes a binding part of the measures' impact review process. Therefore, we propose Ombudspersons' offices as key independent institutional actors in the future monitoring of SCF measures, while underlining the necessity of financial and professional strengthening of these offices to enable qualitative monitoring of measures in the context of transport and energy poverty.

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