STAGES OF URBAN DEVELOPMENT AND ITS CRIMINAL IMPACT ON HUNGARIAN-ROMANIAN RELATIONS

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Abstract. In the Hungarian and international geographical and sociological literature, the stages of urban development are dealt with extremely widely, so the authors refrain from describing them in detail. The relationship between crime and urban development stages is tangential in previous studies. The researchers mention a positive or negative change in the crime rate for each stage but do not go further. They do not undertake to deal with specific criminal values, the structure, or potential solutions for crime prevention.

This study examines the stages of urban development from the perspective of changes in crime. Among the four stages of urban development, the study deals with suburbanization, deurbanisation, and urbanization. In doing so, it shows what main crimes are characteristic of each developmental stage. The authors also mention a new urban development phase that characterizes some European cities. These settlements are mainly located in Central Europe. As a result of the new type of forced industrialization, tens of thousands of new workers are arriving in some settlements. Some of them are foreign workers, which also has a criminogenic effect.

Keywords: *crime, urban development, suburbanization, deurbanization, urbanization, border*

1. Introduction

Research into the relationship between urban development and crime dates back a relatively long time, as researchers from the Chicago School have already investigated the relationship between spatial structure and crime. Nevertheless, the area is among the under-researched topics. Research in this direction can only be found at the Hungarian and international levels.

The authors believe that crime (the volume, structure, intensity, etc.) of crime also has geographical causes in the case of urban development. The authors present these geographical reasons in the study.

It is no exaggeration to say that the present research is unique both in Hungary and abroad since no crime geography analysis of this aspect has been carried out before, which would have examined the relationship between urban development and crime.

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In the study, the authors present the stages of urban development and its impact on crime, i.e., its criminological effects. After this general but novel approach, the authors examine the impact of urbanization in the Hungarian-Romanian context. This is also a topic that neither Hungarian nor Romanian researchers have yet investigated from this aspect. Hungary joined the European Union in 2004 and Romania in 2007. Hungary is a member of the Schengen area; Romania is not yet but is expected to join the Schengen countries soon. Despite the fact that Romania is not yet a Schengen the Schengen countries soon. Despite the fact that Romania is not yet a Schengen country, the border between Romania and Hungary has become "lighter." There is still passport control between the two countries, but it is symbolic that you can cross the border quickly (especially before 2015). As a result, economic cooperation between the two countries accelerated in the border region. Every day, thousands of people go to work in another country. After Romania joined the EU, passenger traffic "only" increased for the first time. After a few years, however, more and more Romanian citizens bought houses in Hungary near the Romania border. They are the ones who, due to the lower real estate prices, go to work in Romania every day. What made this possible? The rapid development of Oradea, the suburbanization, deurbanization, and the significant increase in real estate prices in Oradea. The authors formulated the following hypothesis. H1: As a result of a significant number of Romanian citizens moving to

H1: As a result of a significant number of Romanian citizens moving to Hungary, the number of criminals and victims with Romanian citizenship did not increase significantly.

The authors base their findings on the fact that the people who moved to Hungary are primarily people with families and jobs who have a low level of criminality. And the people who live here mostly live in small villages, where there is little chance of becoming victims of crime.

2. Literature review

Researchers from the Chicago School were the first to examine the impact of settlement structure and urbanization on crime. In the 1800s, Chicago experienced extremely dynamic population growth. The city's population on the shores of Lake Michigan was only 4,470 in 1840, but by 1890, it had already reached 1.7 million. The extremely rapid growth of the population resulted primarily from the development of industry, which mostly "absorbed" many workers. However, population growth also had its downsides, including unemployment, prostitution, alcoholism, homelessness, and an increase in crime (Mátyás, 2020: 20).

Many large American cities have experienced significant population growth over the past few decades. These resulted in changes that attracted the interest of criminologists and sociologists. Christopher Prener examined the city of St. Louis, where the homicide rate increased significantly, ahead of Baltimore and Detroit. Among the immigrants, Bosnians and Latin-speaking people arrived in significant numbers. St. Louis describes a specific trajectory among American cities, so it is impossible to generalize if we talk about settlement sociology research. According to the author, it is better to compare settlements with each other or to put a settlement in context and not to single out a city with a unique pattern, as this can lead to stereotypes (Prener, 2020: 53).

Ocejo and his co-authors draw attention to an interesting fact. Settlement sociology mainly examines the sociological conditions of large settlements, such as

immigration, inequality, gentrification, and the development of crime. Smaller cities were mainly left out of these studies. Even though these factors had the same impact on the lives of the residents here as those living in the big city, they experienced them differently due to the size of the settlement. According to the author, it is also necessary to examine smaller settlements and increase theoretical knowledge in this area (Ocejo et al., 2020: 3-15).

A surprisingly large number of sources deal with the relationship between urbanization and crime in the case of Third World countries. This clearly shows that urbanization processes appeared late only in developing countries. Most of these countries are facing the negative consequences of the urban explosion in the past decades and today. In their case, it can be established that the urban explosion is not the result of a "pull effect," i.e., it is not the rapidly developing industry, whose "suction effect" generates the flow of the population to the cities, but the "push effect." In the case of many African and Asian countries, this means escaping from famine and a hopeless future (Pirisi et al., 2018: 150-158).

Pakistani authors "test" crime research in many scientific fields, including geography. The urbanization process can be considered positive, but its negative side is the increase in crime (Jalil – Muhammad 2010: 741-755).

Rapid urbanization is also a problem in Nigeria. The influx of people into the big cities increased the number of crimes. In addition to traditional criminological research, spatial data and satellite images were used better to understand the problem (Adegbola – Oluwole, 2019: 247).

Andrew Burton draws attention to an interesting negative phenomenon of urbanization in Tanzania. The cities are mostly young men who are called "wahuni" (hooligans). Once in the city, these young men become marginalized and commit crimes. Burton talks about "demographic distortion" in his work, as there will be a disproportionately high proportion of young men in cities. The author separates two stages of urbanization from the European one: 1919-1946 – African urbanization, 1947-1961 – urbanization of the colonial period. Nowadays, most black African countries suffer from the consequences of over-urbanization, as the number of incoming population significantly exceeds the volume of economically "absorbable" population (Burton, 2005: 301).

In the framework of empirical research, Rupesh Gupta investigated crime in New Delhi. In doing so, he established a positive correlation between the population influx caused by urbanization, the increasing number of motor vehicles, and the increase in crime. The author identified places with higher crime rates (e.g., parks, vacant lots, isolated places) (see: Risk Terrain Model). According to Rupesh's research, 30% of the respondents did not use public transport because they feared crime (Rupesh, 2020: 138-160). Similar findings can be made in the case of India's big cities; as in the case of African cities, the large cities cannot handle the excessive population flow, leading to an increase in crime. However, we can note that, based on the last decade's data, India's population growth has significantly lost its dynamics. Therefore, Indian society is heading towards the end of the second population cycle, unlike Africans.

The relationship between urbanization and victimization was investigated in a sample of 9,000 households in Stockholm and Gavleborg counties. The research established a direct correlation between the degree of urbanization and becoming a victim. In other words, the greater the proportion of urbanization, the greater the

number of victims. The authors explain this by the magnitude of social cohesion. In less urbanized areas, the relationship between people is closer, they pay more attention to each other, etc. These factors reduce the magnitude of victimization (Wikstrom – Dolmen, 2001: 121-140).

Philip J. Levchak examined the relationship between urbanization and homicide. During the research, the author analyzed the homicide data series of 57 countries between 1993 and 2005. Mathematical and statistical methods were used during the correlation study. Levchak found that there is a strong positive correlation between the degree of urbanization and the number of homicides. In the case of rapid urbanization, the infrastructure of cities cannot keep up with the increased demands. The housing conditions will only be suitable for some new residents, and the employment opportunities will also be insufficient. The number of unemployed will increase, which may have a criminogenic effect. Levchak notes that the degree of correlation largely depends on the specific geographical location and the quality of the social environment (Levchak, 2016: 225-243).

3. Methodology

The authors used geographical, criminological, and sociological sources to write the article. Regarding the number of Romanian citizens living in Hungary, the authors used the database of the Hungarian Statistical Office. The crime data was made available to the authors by the National Police Headquarters.

The fact that "foreign citizen" is included in the statistical database appeared as a methodological problem. The "foreign citizen" category consists of those foreign citizens who live in Hungary, as well as those who are tourists. In other words, it cannot be determined whether a victim or perpetrator stayed in Hungary as a tourist or lives here permanently. This is a problem not only in Hungarian statistics but also in the statistics of other European Union countries. Based on this, it is difficult to assess the number of injured tourists, for example. Despite this, the authors analyze the statistical data of Romanian citizens who became victims and offenders in Hungary based on five years of data. Moreover, conclusions are drawn from the trend.

Another methodological problem was that many of those who buy real estate in Hungary are dual citizens (Hungarian-Romanian citizens) and, therefore, appear in the register as Hungarian citizens. Therefore, it is impossible to know the exact number of people who moved from Romania. It is also a methodological problem that local governments do not keep records based on citizenship, so even though the authors wrote an inquiry, the local governments could not respond. The register of the Hungarian Statistical Office has national data. This does not reveal how many foreign citizens bought real estate in each settlement.

4. Results

4.1. Stages of urban development and their criminological effects 4.1.1. Urbanization

Urban explosion is the first stage of urban development. This stage of development is only tangentially dealt with in the research, as it is currently a stage of urban development that does not exist in developed countries.

The main indicator of the urban explosion was the Industrial Revolution. The population of rural areas swelled, flowing into the cities. The Industrial Revolution was

welcomed in different periods in each country, so the population flow to cities also occurred in different periods (Pirisi – Trócsányi – Hajnal, 2018).

The large population pouring into the cities significantly changed the life of the big cities of the time, contributing to the change in the number and structure of crimes. Urbanization is currently observed in many developing countries, causing serious social problems.

4.1.2. Suburbanization

Suburbanization processes (relative deconcentration) were primarily triggered by the fact that inner-city and urban areas provided less and less ideal housing conditions for the people living there. They have become overcrowded, which causes health, traffic, parking, etc.-generated problems. The more affluent citizens could afford to move to the city's edge or outside the city and buy a new house with a garden (Kocsis, 2000). With the generalization of cars, suburbanization accelerated even more, as even more people became independent of public transport and could reach places important to them more quickly. In the United Kingdom, large-scale suburbanization started at the beginning of the 20th century, in other countries later, and in the United States after the World War (Pirisi – Trócsányi – Hajnal, 2018: 150-158).

Businesses that require much space and provide various services will soon appear everywhere along the roads leading out of the big cities (e.g., logistics centers, shopping centers), and the population of the suburbs creates the conditions for the establishment of educational and health institutions. These "edge cities" sooner or later "come to life on their own" since they have all the functions a city should have.

In the case of suburbanization, several factors that increase the number of crimes can be identified. Most of the families who moved out of the central parts of the cities were replaced by people with a lower level of existence, as a result of which the crime rate in the inner-city areas mainly increases. Among the crimes committed, property and violent crimes are present in a higher proportion.

The next area of crimes related to suburbanization can be linked to residential and single-family areas located on the city's outskirts and outside the city. Most of the residents go to work in the town, which means that the population in these areas is low during the day, thus providing an "ideal" environment for criminals (e.g., burglary, theft). Near the new residential areas, along the exit roads, large area shopping centers are buildings. The number of machinery break-ins and thefts is significant here.

4.1.3. Deurbanization

In deurbanization, the population of not only the cities but also the suburbs begins to decrease. That is why this process is also called absolute deconcentration. During deurbanization, the movers leave the city and move to rural areas, sometimes tens of kilometers away.

Deurbanization affects far fewer people than suburbanization. Large-scale deurbanization cannot be observed anywhere (Kocsis, 2000: 311-321). The main reason for this is that the more affluent people can afford to travel more (travel costs) and, due to the distance, to work from home several days a week. The acceleration of deurbanization was helped by the pandemic caused by COVID-19, which showed that working from home can be solved in many areas. Despite this, deurbanization can still be considered massive.

The criminal effects of deurbanization are more challenging to measure than in the case of the stages of urban development presented earlier. There are several reasons for this. On the one hand, it covers a smaller time interval, so there is less time to observe the negative phenomena. On the other hand, it affects far fewer people than the previous stages of urban development.

4.1.4. Reurbanization

The latest stage of urban development. The social and economic need for revitalizing the inner-city areas gave rise to reurbanization. If the real estate developments are successful, the population exchange can start, initiating favorable processes (Pirisi – Trócsányi – Hajnal, 2018: 1501-158). In the case of newly built or renovated properties, the wealthiest people can only pay relatively high prices.

processes (if first – frocsarlyf – frajnat, 2018. 1501-156). In the case of newly built of renovated properties, the wealthiest people can only pay relatively high prices.
The opinion is unanimous that it has only positive criminal effects (source).
According to the authors, this is only partially true. The population of the rehabilitated area will be replaced, which will really have a positive return in a given area. However, the sources forget to mention that in many cases, the people living in these areas are moved elsewhere. We have also seen this in the case of many Hungarian cities, where the inner-city population living at a low social level was moved out to the outskirts of the city. In these garden city areas, the residents' subjective sense of security and the new place's property security were significantly worsened (Sóvágó, 2007: 43).
Debrecen can be cited as an example of this.

In addition to physical rehabilitation (renovation of buildings), social rehabilitation is also necessary. In this process, in addition to the renovation of the buildings, it is also necessary to raise the population living there, who, in many cases, are marginalized.

4.2. A new type of urban development

In European countries today, we cannot speak of an urban explosion, but there are many big cities – in Hungary and Romania – where the population growth can be observed. Behind this growth is the significant labor demand of industrial plants within a short time, which results in a dynamic increase in the population of individual settlements (e.g., Debrecen, Kecskemét, Oradea).

What criminal relevance does the above process have? The industry employs a higher percentage of male workers. The percentage of men will be higher in settlements where new factories are established mainly based on male labor. It is a criminological fact that men commit more crimes (Santana, 2009). The new type of urban development stimulated by industrial development has a criminogenic effect. Szabolcs Mátyás called this process "neo-industrial criminality" in his book "Criminal Geography" (Mátyás, 2023: 122).

Let us also mention the process experienced in many Central European countries, which bases industrial development not on domestic but on foreign labor. The primary reason is that there is not an adequate number of qualified workers in a given country, so workers come from abroad in the framework of temporary labor hire. This can also have a criminogenic effect.

4.3. Urban development and urbanization on both sides of the border

Debrecen and Oradea are, the two big cities on the border, have been competitors for centuries. Sometimes one and sometimes the other city was the one that developed better. Between 1945 and 1989, the two cities were separated, the border cutting the relations in two. After the change of the regime, the relationship between the two cities became more lively in economic and cultural terms. And not only between the two cities but also between the two countries. Many tourists traveled to the other country, and economic traffic between the two countries also increased significantly.

In the former socialist countries, the process of suburbanization was delayed and only started to appear towards the end of the 1980s. After the change of the regime, this process sped up, and suburbanization made its impact felt more and more. At the same time (a few years later), deurbanization and reurbanization also appeared. What was the consequence of this? Oradea increasingly regained its former glory. The city was renewed and beautified. The city center has been re-enchanted, and many parts have been rebuilt. Real estate prices in Oradea started to rise (Rostás – Bálint, 2023), so it became more and more difficult for many, especially young people, to afford an apartment. They first bought real estate around Oradea, and after their prices rose, several bought real estate on the other side of the border, in Hungary. However, we can mention Oradea and the cities of Arad and Satu Mare. Real estate prices in these settlements also rose, and many people bought houses on the Hungarian side of the border.

After Romania joined the European Union, the border did not separate people but connected them. Those who bought a house in Hungary crossed the border daily to work in the Oradea area and returned in the afternoon. This process will be completed when Romania joins the Schengen Convention, and the borders will disappear completely. (The authors hope this will happen in 2024.)

	2018	2019	2020	2021	2022	2023
Number of Romanian citizens in	22.747	21.017	22.162	18.220	16.601	16.542
Hungary	22.747	21.017	22.102	10.220	10.001	10.342
The number of victimized						
Romanian citizens in Hungary	448	393	341	300	296	-
(person)						
The number of perpetrator						
Romanian citizens in Hungary	1150	1068	1290	1294	1595	-
(person)						

Table 1. Statistical date about victims and perpetrators

Source: Hungarian Statistical Office, National Police Headquarters

The question arises as to what causes the significant real estate price difference in Hungary and Romania. The small settlements on the Hungarian side of the border are "urban-deficient" settlements; they lost their centers after the First World War (e.g., Oradea, Arad), and in Hungary, they were too far from the big cities. The economic backwardness of these settlements along the border region was constantly increasing, and their population was constantly losing. There were not enough job opportunities, so young people emigrated. These settlements have become aging, so real estate prices have become very low (Rostás – Bálint, 2023). After Romania joined the EU, many people decided to buy cheap houses, renovate them, and live in Hungary. As a result, the population of the depopulated villages began to grow, young people arrived in the settlements, which saved these settlements from destruction.

Interestingly, the number of Romanian citizens living in Hungary has decreased significantly in recent years (Table 1). In 1995, 68,439 Romanian citizens resided in Hungary, which fell to 57,343 in 2000 and 28,641 in 2015 (KSH). A significant decrease can be observed as time progresses. According to the authors, there are three main reasons for this.

1. In Hungary, since 2010, it has been possible for a foreign citizen to become a dual citizen in a simplified manner. Many Romanian citizens have also acquired Hungarian citizenship, so many are listed as Hungarian (and not Romanian) citizens in the statistics.

2. The desire to buy real estate has decreased. Many Romanian citizens are disappointed. Until 2015, crossing the border was fast; daily crossings did not cause any problems. As a result of the wave of refugees in 2015, border crossings were tightened on both the Hungarian and Romanian sides, and it is much slower to cross the border. Added to this was the Russian-Ukrainian war that broke out in 2022, which slowed down border traffic even more. It happens that thousands of Ukrainian refugees arrive in Hungary from Romania every day, which also increases the time it takes to cross the border. The increased transit time has discouraged many people, as it is increasingly difficult to manage the daily commute.

3. The previous high values included working in Hungary as a guest worker with Romanian citizenship. Nowadays, this has decreased significantly. Wages in Romania have increased significantly in the past decade, so it is not worth working in Hungary.

The fact that the number of offended Romanian citizens in Hungary has significantly decreased is positive (between 2018 and 2022 with 34%). On the other hand, only 28% of Romanian citizens living in Hungary, i.e., fewer and fewer Romanian citizens, are offended. This is a national trend in Hungary; the number of foreign victims is decreasing (www.ksh.hu). However, these are national data, so obtaining data for border settlements was impossible. However, based on informal conversations, it can be assumed that the number of Romanian citizens offended in the border settlements is very low. The authors are both police officers from Hajdú-Bihar county, and they asked their former colleagues how often they meet Romanian victims living in Hungary. Every police officer interviewed mentioned a very low value.

Annually, 1,000-1,500 Romanian citizens become criminals in Hungary. Considering the number of Romanian citizens coming to Hungary, this cannot be regarded as a high value (most tourists come to Hungary from Romania) (www.police.hu). In this regard, this is also national data, which means that it is not known in which part of the country these crimes are committed. Among the crimes, the proportion of traffic crimes is high (e.g., causing an accident), i.e., it is not intentional. In this regard, it is worth mentioning that the number of Romanian citizens (tourists) coming to Hungary is constantly increasing (Lőrincz – Keller – Mátyás, 2023: 101-116). The hypothesis formulated by the authors was confirmed. Based on the

The hypothesis formulated by the authors was confirmed. Based on the criminal statistics data, the number of victims with Romanian citizenship did not increase significantly. Similar conclusions can be made about criminals. Although the number of criminals with Romanian citizenship has increased in Hungary, the number of tourists arriving in Hungary has also increased significantly, so it can be assumed

that Romanian citizens who have moved to Hungary are law-abiding citizens who do not commit many crimes.

5. Summary

During this research, the authors presented the stages of urban development. In doing so, the four stages of urbanization were not examined from the traditional geographical point of view but from a criminological point of view. The authors presented the factors that cause increased crime at each stage. It has been established that in the case of urbanization, large-scale immigration and people who have become rootless cause criminological problems in many cases. In addition, infrastructure and services could not keep up with immigration. Suburbanization created new neighborhoods that were "empty" during the day. These residential areas provide "ideal" conditions for home burglaries. The effect of suburbanization is that large shopping centers have been created on the outskirts of cities and along the roads leading out of the city. Car break-ins and car thefts can be observed in their parking lots. The criminological effects of deurbanization are more challenging to study because they affect fewer people. Similar conclusions can be made with this section as with suburbanization, although its criminological impact is much milder. The effect of reurbanization is twofold. There is less crime in the renewed downtown as its population changes. The new residents are mostly young, wealthy, and intellectual. On the other hand, the population moving out of the city center has a negative effect on its new place of residence. Crime will be higher wherever they move.

The authors examined the impact of urbanization in Hungarian and Romanian contexts. As a result of the increased real estate prices in Romania, thousands of Romanian citizens moved to Hungary. This process is a consequence of suburbanization and deurbanization in Romania. The authors examined whether this resulted in an increase in the number of Romanian citizens who became victims or criminals in Hungary. They found that the change was not detectable in either case.

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