

## CHANGES IN THE SETTLEMENT SYSTEM IN EAST BALTIC COUNTRIES DURING THE 20TH AND EARLY 21ST CENTURIES

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### ABSTRACT

The purpose of this study is to find out how the settlement systems in Lithuania, Latvia and Estonia changed during the 20th century and at the beginning of the 21st century, and what the trends for further urban change are. In the Soviet period, single farms that existed in all three east Baltic countries were destroyed. The inhabitants of single farms were moved to central settlements. Cities grew in all the republics, especially in the largest centres. A network of satellite settlements grew up around the capitals, which was particularly dense around Tallinn and Riga. The capitals and their surrounding settlements are currently growing at a very high speed in all the east Baltic countries. This concentrates administrative functions and a highly skilled workforce, and attracts the most investment. As a result, peripheral areas, especially villages, are disappearing, and their inhabitants are emigrating. Such areas are becoming unattractive to business. In order to show the situation, the authors used a comparative analysis method, as well as cartographic, graphic and other methods. The anticipation of settlement principles and trends is one of the most important tasks of regional policy in each country. Therefore, an interpolation method was used to make estimates of the urban population in the three largest cities in the east Baltic countries from 2020 to 2023. The trend analysis indicates that the populations of most of the largest cities in the east Baltic countries will decrease

KEYWORDS: *settlement system, east Baltic countries, population, urban, rural.*

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### Introduction

Historically, Lithuania, Latvia and Estonia have many similarities in their development, especially in the 20th century. It would seem that the development of settlements should also be the same. However, even in the Soviet era, the development of settlement systems in these republics had some exceptional features. The east Baltic countries regained their independence in the 1990s, but like other post-Soviet countries, they faced new challenges that still shape the settlement system. These differences are evident in both the urban and rural settlement systems.

Latvia and Estonia are now seen more as countries with a monocentric settlement system. Significant proportions of their population, industry and services are concentrated in the regions of the capitals, which are the most attractive areas for investors. As a result, the population around these metropolitan areas continues to grow, and territorial disparities between the capital and the rest of the country are growing. As the

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region of the capital strengthens, the periphery weakens. Consequently, both countries are developing a polycentric approach to settlement development in their planning documents.

In Lithuania, due to the more even settlement planning in the Soviet era, the current population distribution is more even. There are four cities with more than 100,000 inhabitants, and the gap between the capital and the other major cities is less obvious as in Estonia and Latvia.

However, urbanisation can also be seen in Lithuania. The spontaneous urban development around the major cities is a relatively new phenomenon in Lithuania.

In order to form the current settlement systems in the east Baltic countries, their societies had to implement complex political, economic and spatial planning processes.

The process of the development of the settlement system is constantly changing, and many social phenomena and much decision-making is taking place. External (European as well as global) factors also have a significant impact. The anticipation of settlement principles and trends is one of the most important tasks of the regional policy of each country.

In all east Baltic countries, capitals with surrounding settlements are growing rapidly. This concentrates administrative functions and a highly skilled workforce, and attracts most investment. As a result, peripheral areas, especially villages, are disappearing, and their inhabitants are emigrating. These areas are becoming unattractive to business.

Thus, the purpose of this study is to find out how the settlement systems of Lithuania, Latvia and Estonia changed in the 20th century and at the beginning of the 21st century, and what the trends in further urban change are.

Accordingly, four tasks have been formulated to achieve this purpose:

1. To analyse the changes in population and settlements during the Soviet period in the east Baltic countries.
2. To compare the changes in the urban systems after the restoration of independence in Lithuania, Latvia and Estonia.
3. To discuss the development of rural settlements in east Baltic countries after the restoration of independence.
4. To perform three-year population forecasts for the three main cities of the east Baltic countries.

The object of the research is the settlement systems of Lithuania, Latvia and Estonia.

Methods. Using the comparative method, the following components were compared: 1) specific historical periods (Soviet and after the restoration of independence); 2) the settlement systems of the three countries, and their territorial location and change. The statistical data analysis method allowed the necessary calculations of population and settlements to be performed.

An interpolation method was used to make estimates of the urban population. Preliminary population changes in the three largest cities of the east Baltic countries in 2020–2023 were calculated.

A cartographic method was used to visually depict the spatial distribution of settlements. The statistics were systematised and grouped. The populations of the largest cities were represented graphically in the chart. Theoretical studies have been used by various authors in order to analyse the historical development of the settlement system.

## 1. The settlement system of the east Baltic countries inside the Soviet Union

After the east Baltic countries were forcibly annexed by the Soviet Union, they had to switch to a different system, which dramatically reshaped the settlement systems. According to the USSR's regional planning policy, the aim was to create a 'unified settlement system' that also included rural settlements. The single farms that had existed in all three east Baltic countries were destroyed. The inhabitants of the single farms were moved to central settlements, which were growing very fast at the time. During the Soviet era, the development of Lithuanian, Latvian and Estonian villages was determined by growing collective farms and the emergence of a network of auxiliary and central settlements (Kriaučiūnas et al., 2014). In 1979, the population density in Lithuania was the highest among all three countries, at 25–50 people per square kilometre.

In northeast Lithuania, the density of the rural population was lower, at 10–25 people per square kilometre, similar to the density prevailing in Latvia and Estonia at that time. In Latvia, the population density was higher near the city of Rīga, and the lowest density was in the northwest part of Latvia, where the rural population was extremely low, at 1–10 people per square kilometre. In Estonia, the population density of villages was the lowest, at 10–25 people per square kilometre.

During the Soviet era, large cities became popular, so that during that period, the urban population in the east Baltic countries began to exceed the rural population. Overall, during this period, the urban population in the east Baltic countries increased from 30% to almost 70% (Cirtautas 2015). At the beginning of the Soviet era, the level of urbanisation grew particularly fast in Estonia and Latvia. The level of urbanisation was 47% in Estonia and 45% in Latvia. As early as 1979, the urban population in Estonia reached 70%, and the country became the most urbanised republic in the Soviet Union (in Latvia it was 68%). This distribution of the population was determined by the growth of large cities. For example, 46% of all residents who migrated to cities moved to Rīga, 42.7% to Tallinn, and 23% to Vilnius in 1959–1979 (Idzelis, 1984). Although all three east Baltic countries were part of the Soviet Union, the economic situation in Vilnius was not as favourable as that in Rīga or Tallinn, and industrial development was extremely rapid in the latter two cities. Later, this industrial revival caused a demographic explosion and rapid urbanisation in the capitals of the Baltic countries (Krupickaitė, 2003). In Latvia, the population of the cities increased by 1.7 times between 1940 and 1959. During this period, the number of migrants from other republics of the USSR increased, who settled mainly in the cities. Between 1959 and 1989, the population of Latvian cities increased again by 1.7 times. The unequal distribution of cities in the east Baltic countries was caused by uneven population migration and industrial development, but also by the scheme for the distribution of productive forces prepared by Lithuanian geographers. According to the scheme, production expanded not only in republican cities, but also in district centres (Vaitekūnas, 2004).

Urban growth was particularly intense in the 1970s, when industrialisation accelerated, and one of the goals of Soviet policy was to prove to the West that it could be an industrialised republic. Therefore, the industrial growth of cities was encouraged during the Soviet occupation, in some cases cities were artificially created, and cities that had been destroyed during the war were rebuilt (Vaitekūnas, 2004). During the Soviet era, the five largest Lithuanian cities (Vilnius, Kaunas, Klaipėda, Šiauliai and Panevėžys) and resorts (Palanga, Birštonas and Druskininkai) all grew.

As the growth of the capitals of Estonia and Latvia gained pace, a new urban strategy was launched, with the aim of creating an agglomeration with satellite cities around Tallinn. This was to help accelerate the development of industrialisation in small and medium-sized towns around Tallinn. As a result, satellite towns in the agglomeration grew faster than the capital city and the rural hinterland (Leetmaa, 2008: 70). Therefore, a monocentric agglomeration of Tallinn with six satellite cities (Aegviidu, Kehra, Keila, Maardu, Paldiski and Saue) began to form, as well as rural settlements (Tammaru, 1999). In fact, this policy finally led to the current system of Estonian cities.

During the Soviet era, Rīga and Tallinn were not only the largest cities, but also strategically important ports, receiving a lot of Soviet investment, which encouraged the creation of new settlements around the capitals. Vilnius, meanwhile, did not receive such attention. This also determined the development of other cities, not only the capital city in Lithuania.

## 2. The urban system after the restoration of independence

Comparing the 1989 census data and the statistics from the beginning of 2019, the populations of all three east Baltic countries have decreased. After the collapse of the Soviet Union, revolutionary changes took place not only in the regions of eastern Europe, but also in Central Europe, encompassing large areas, and leading to changing lifestyles and changes in the settlement system. The planned economic system was replaced by the free market. Increased unemployment has encouraged internal and external migration; natural population growth has become negative; and the family model and the perception of it have changed. This

has caused a demographic crisis that continues to this day in all three east Baltic countries. The settlement system is sensitive to demographic change; therefore, since the restoration of independence, there has been a significant transformation of the settlement system in the east Baltic countries.

Since the restoration of independence, relatively few settlements have gained or lost their municipal status. The most significant change in the number of towns has been in Lithuania, where the country's network of towns decreased by 11 towns during the 30 years of independence.

As the population moved rapidly to metropolitan areas, the number of medium-sized towns (20,000 to 100,000 inhabitants) decreased accordingly. As a result, the number of small towns (1,000 to 3,000 inhabitants or less) has also increased (Table 1).

Table 1. The distribution of towns and cities by different size groups of population in 1989 and 2019

Country	Lithuania		Latvia		Estonia	
	1989	2019	1989	2019	1989	2019
More than 100,000	5	4	3	1	2	1
20,000–100,000	13	10	9	9	5	4
10,000–20,000	21	15	13	6	11	8
3,000–10,000	30	35	25	26	16	16
1,000–3,000	35	24	24	27	8	15
less than 1,000	10	15	1	7	-	3
Total	114	103	75	76	42	47

Sources: Central Statistical Bureau of Latvia, 2020; Lietuvos statistikos departamentas, 2020; Statistics Estonia 2020

The current network of settlements is fairly even in all three countries. In Lithuania, the highest concentrations of towns are in the Vilnius, Šiauliai and Kaunas regions: 15.5%, 13.6% and 12.6%, respectively, of all the towns in the country. The thinnest network of towns is in western Lithuania: in the Klaipėda (nine towns), Telšiai and Tauragė (seven towns) districts.

In Latvia, the highest concentration of towns is in the region of the capital, in the Pierīgas region, which has 20 towns (including the capital Rīga), which accounts for 26% of all towns in the country. The lowest concentration of towns (ten) is in the Zemgale region (7.6% of towns), which borders Lithuania to the south.

In terms of area, Estonia has the highest urban concentration in the north of the country. This is due to decisions made during the Soviet era. In Lithuania, 67.6% of the population lived in urban settlements in 1989. During the study period, this indicator fluctuated insignificantly, and reached 67.1% at the beginning of 2019. In 1989, cities in Latvia and Estonia had a similar relative share of the population: 71.1% and 71.5% respectively. However, in 30 years, the relative populations of towns in Latvia and Estonia have decreased more significantly than in Lithuania. A total of 68.5% of Latvians and 66.6% of Estonians lived in rural settlements in 2019. In all three countries, the share of the rural population increased during the study period.

Many towns did not avoid population decline between 1989 and 2019. Differences between towns have been identified (Fig. 1).

The biggest negative changes in the populations of the east Baltic countries are in the border towns, and in those that are far from the country's main cities. In Lithuania, the fastest decline in the urban population was in the northeastern and southern parts. The smallest change in the population of towns was in central and western parts of the country, in other words, in the Vilnius-Kaunas and Klaipėda zones. In Latvia, the fastest urban depopulation was in the western part of the country, in the Vidzeme and Latgale regions. The lowest urban depopulation was in the Pierīgas region. Meanwhile, in towns such as Baldone, Baloži and Ikšķile, the population has increased, and in some cases almost doubled. The demographic change in Latvian cities is

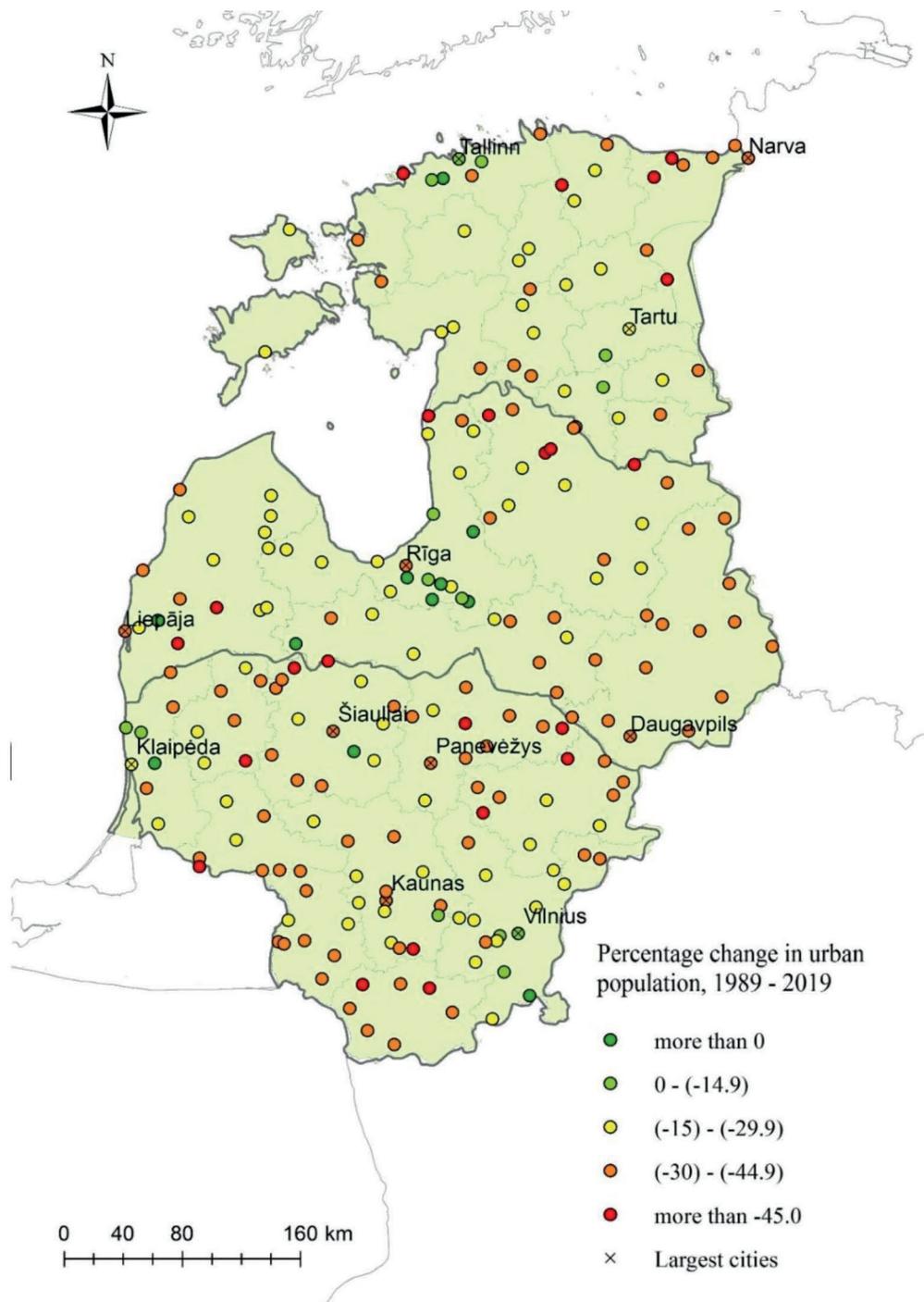


Figure 1. Population change in cities and towns of the east Baltic countries 1989–2019

Sources: Central Statistical Bureau of Latvia, 2020; Lietuvos statistikos departamentas, 2020; Statistics Estonia, 2020

positive in the region of the capital. In Estonia, the fastest declining cities were in the northeast and central parts of the country. However, it is also noticeable that towns located near the capital experienced a less significant population decline between 1989 and 2019, while the population of the town of Saue near Tallinn increased by almost 30% during the study period.

It should be noted that the relative change in population does not always adequately reflect the real change in the population. The largest cities in Lithuania, Latvia and Estonia suffered the most numerous actual population losses. For example, the five largest cities in Lithuania lost a total of 308,686 inhabitants between 1989 and 2019. Kaunas, the second-largest city, has such a population. In Latvia, the figures are even worse. The country's capital alone shrunk by 277,841 people over the 30-year period. This redistribution of the population can be explained by the fact that after the restoration of independence, Latvia faced a rapid decline in the population caused by the departure of immigrants back to the east (Krupickaitė, 2003).

Alongside international migration, countries are experiencing intense internal migration: people are moving from the periphery to larger cities, to industrial centres where a higher education can be acquired, where there is a greater supply of labour, and more attractive wages. Often, smaller towns located next to a larger city become an attractive place to live. Over time, such units interact and form agglomerations. These formations are clearly visible in the case of Tallinn and Rīga, where the populations of neighbouring towns are growing. This means an improvement in the economic and social lives of these towns.

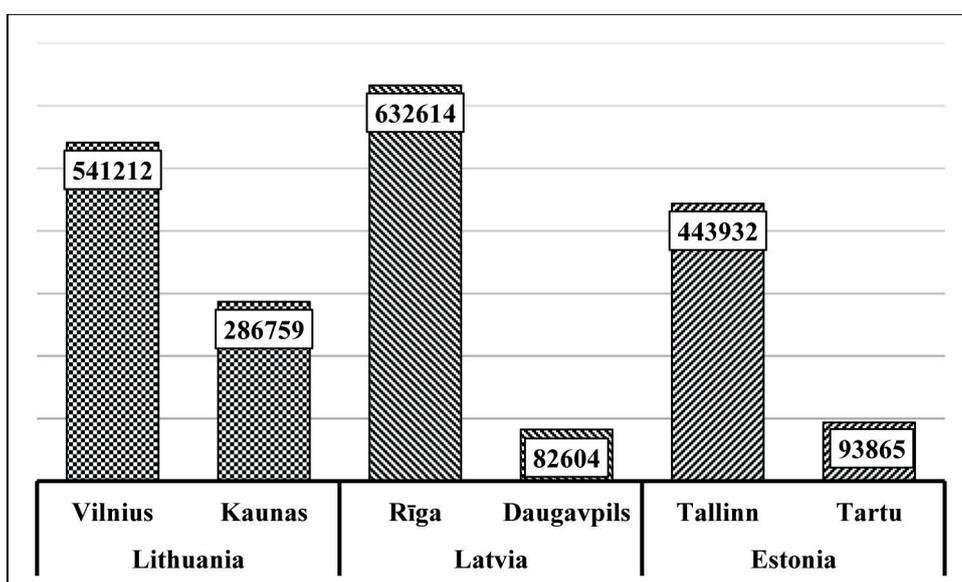


Figure 2. The number of people in the two largest cities in the east Baltic countries in 2019

Sources: Central Statistical Bureau of Latvia, 2020; Lietuvos statistikos departamentas, 2020; Statistics Estonia, 2020

Currently, cities with more than 100,000 inhabitants include the smallest relative share of urban systems in all three countries. There are four cities of this type in Lithuania (Vilnius, Kaunas, Klaipėda and Šiauliai). There is one city of this size in Latvia, and one in Estonia (Rīga and Tallinn) (Fig. 2).

The population of Rīga (633,000) was 33% of the total population of the country in 2019. It is the largest city in the east Baltic (Central Statistical Bureau of Latvia, 2020). The most densely populated region in Estonia is located in the northern part and on the coast, which has the greatest concentration of business and infrastructure, and is in close proximity to tourist areas. There are three large cities in this area: Tallinn, Narva and Kohtla-Järve. Lithuania does not have such a high population concentration in one city. Almost 20% of the country's population live in Vilnius. Another 10% of the country's population live in Kaunas.

The urban systems in Latvia and Estonia are similar, but they differ from the Lithuanian urban system. This difference is evident when comparing the development of the urban systems of the three east Baltic countries during the Soviet era. Due to the different migration flows and the unequal regional policies in Latvia and Estonia, large and medium-size towns have grown strongly. On the other hand, the urban systems

of all three countries are characterised by a relatively large number of towns with a population of 5,000 to 20,000 people. This shows a well-developed network of local centres, which is typical of agrarian countries (Krupickaitė, 2003).

### 3. The rural system after the restoration of independence

After the declarations of independence in the early 20th century, villages were the main form of settlement in the east Baltic countries. Land reform took place during the interwar period, and the lands of wealthy nobles were divided into individual (single) farms. This landscape persisted until the Second World War.

After the Second World War, both the population of the countryside and the countryside itself began to decline. This was due to the forced evacuation of the population, the relocation of single farms, land reclamation, and other reasons.

On average, a third of the populations of Lithuania, Latvia and Estonia live in rural settlements, and this relative size does not differ significantly between the three countries. The percentage of the rural population increased slightly in all three east Baltic countries between 1989 and 2019. After regaining independence, the land was returned to the owners, and a number of people returned to the countryside. This process took place in all east Baltic countries. The population in remote areas of Latvia, especially in the East Latgale region, grew faster. But soon the migration of the population stabilised (Krišjāne, Lāce, 2012). At present, the change in the rural population is the most stable in Lithuania, and it has changed more significantly in Latvia and Estonia.

Nevertheless, changes in the rural settlement system are very clear. During the 2001 census, there were 18,461 villages in Lithuania, and by the next census (2011) it was established that the country had lost 1,699 villages. Most villages disappeared in northern and eastern Lithuania. The rural network changed the least in western and southwestern areas between 2001 and 2011. Larger villages dominate in western and southwest Lithuania, while there are more villages with fewer inhabitants in northern and eastern Lithuania. The emergence of differences in the size and configurations of larger and smaller villages in the country was determined by natural factors (relief, forest cover, areas covered by bodies of water, etc) (Vaitekūnas et al., 2014). Also, the prevalence of small villages and uninhabited villages in northeast Lithuania was determined by early depopulation in this region. As this region is rich in lakes and natural features, it was decided to develop recreation there in the Soviet era. Due to the surplus of labour, people began to emigrate to nearby cities. These days, this process is still going on in this region (Kriaučiūnas et al., 2014).

Ongoing processes show that areas with large cities (economic centres) are characterised by the growth of large rural settlements. As the infrastructure improves, residents move to the suburbs, which grow and create new, large villages. The process of suburbanisation is especially active in the Klaipėda and Vilnius regions (Vaitekūnas et al., 2014). Growing cities-centres attract villagers, so villages located in disadvantaged geographical areas are shrinking and disappearing. As a result, sparsely populated areas are forming in Lithuania (the population density does not exceed 12.5 inhabitants per square kilometre), and small villages are disappearing (Daugirdas et al., 2013). Meanwhile, settlements located closer to large centres are growing and expanding. The chaotic growth of settlements around major cities has led to the fragmented development of transport and the infrastructure (Urbact, 2020).

In 2000, the rural population in the statistical regions of Latvia was not quite evenly distributed: most of the rural population lived in the Latgale region (22.5%), and the least in the Kurzeme region (15.9%). In other regions, the total relative share of the rural population ranged from 19% to 2%. However, according to 2017 data, the distribution of the country's rural population has changed. As many as 30.2% of the country's rural population lived in the Pierīgas region, while in other regions the share of the rural population in 2017 decreased. This reflects a dual process: urbanisation and suburbanisation.

In Estonia, during the last two censuses (2001 and 2011), the total number of villages decreased by 172 settlements, and reached 4,438 villages in 2011. A total of 85% of Estonian villages had up to 100 permanent residents. Estonian villages are relatively small: half of them have up to 50 people (Estonica, 2020).

Suburban areas are growing, despite the fact that moving to them is often expensive. The arrival of young and educated people is noticeable. Moving to the countryside is determined by people’s desires and beliefs that it is a healthier environment for children to grow up in, the desire to be closer to nature, and to feel independent (Krisjane et al., 2012). The process of suburbanisation is noticeable in all east Baltic countries, especially in the regions of the capitals. On the other hand, second homes are established in villages in all countries, and especially on single farms, where residents of the cities spend their holidays and their free time.

The number and sizes of villages are declining in all three east Baltic countries. However, suburbs are growing, so there is a rapid growth of rural-type settlements near major cities. The importance of smaller towns is also declining in all countries. This process is more intense in Estonia and Latvia than in Lithuania. In other words, smaller towns lose their populations faster, which is a consequence of previous processes (earlier urbanisation, which led to previous suburbanisation, and deurbanisation) (Krupickaite, 2003). In Lithuania, such growth in the suburbs is observed in three cities: around the capital Vilnius, and around Kaunas and Klaipėda. In Estonia and Latvia, this process is taking place around the capitals.

#### 4. The further development of east Baltic cities

The unequal distribution of the population across the country is one of the main problems of east Baltic countries. Various programmes and plans are being prepared to solve this. Although regional policy sets out objectives and actions to reduce the gap between regions and cities, depopulation is a major problem facing all three countries. Forecasts state that the population of many cities will decrease.

*Vilnius (Lithuania).* Being the capital and the economic centre of the country, Vilnius will attract labour, and its population will grow every year (Fig. 3). The forecast shows that under unchanging conditions, the city will have a population of 556,508 in 2023. From 2020 to 2023, the city will grow by 6,479 inhabitants. The demographic forecast for Vilnius is positive, because the city is constantly being supplemented by young people coming to study, who often stay there. The city also influences the surrounding areas, and attracts their residents. A process of suburbanisation is taking place near the city, so it is expected that the city’s population will stabilise, and eventually start to decline in the future. These trends are supported by a negative indicator for natural change in the population and negative net migration (Tučas, 2017).

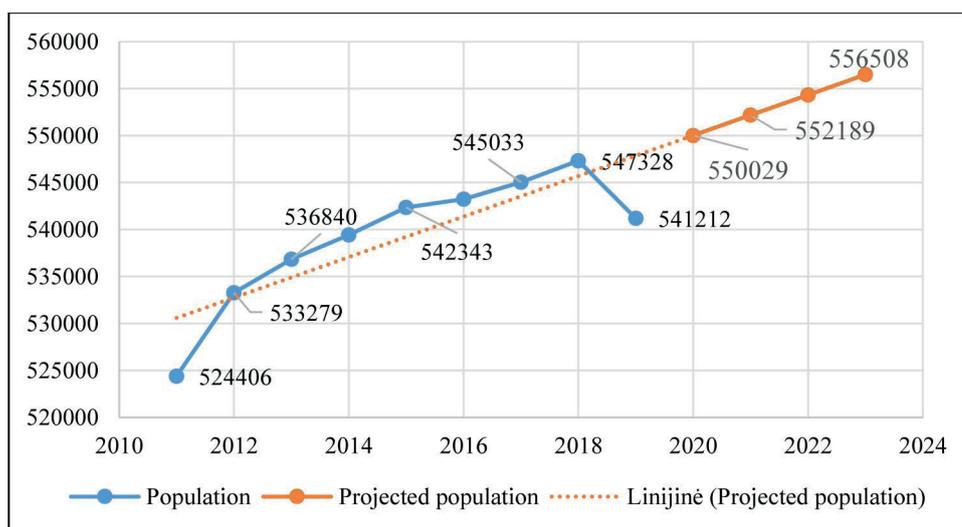


Figure 3. Changes in the population of Vilnius, and forecasts for 2011–2023

Source: Lietuvos statistikos departamentas, 2020

*Kaunas (Lithuania).* The population will decline in Lithuania's second most populous city. The forecast shows that in 2023, the city will have a population of 271,401. From 2020 to 2023, the population of the city will shrink by 10,923 inhabitants.

*Klaipėda (Lithuania).* According to the forecast, the population of the port city will decrease. A total of 141,065 inhabitants will live in Klaipėda in 2023. The city will lose 5,345 inhabitants in the period 2020–2023. In the case of both Kaunas and Klaipėda, the population decline is associated with migration to the suburbs and abroad, as well as negative natural change.

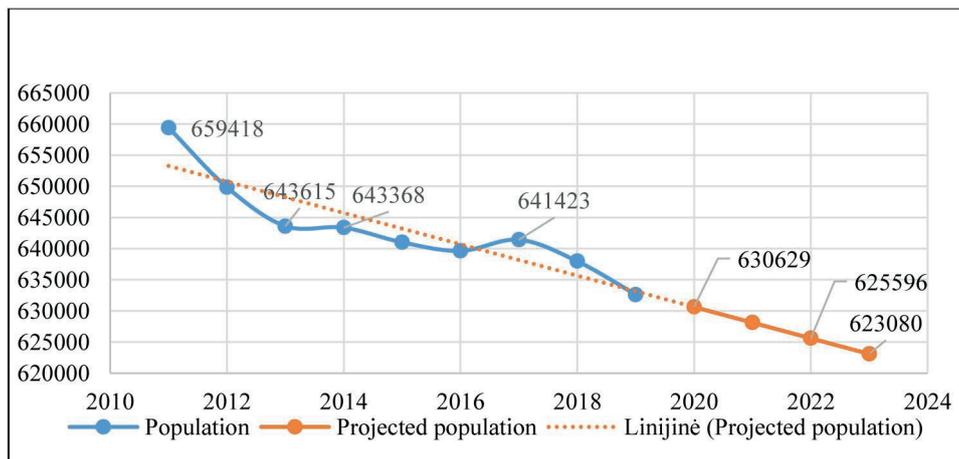


Figure 4. Changes in the population of Rīga, and forecasts for 2011–2023

Source: Central Statistical Bureau of Latvia, 2020

*Rīga (Latvia).* The capital of Latvia, the largest city in the country and the economic centre, will have a declining population in the future, in contrast to the Lithuanian capital. A total of 623,080 inhabitants will live in Rīga in 2023, so the city will shrink by 7,549 inhabitants (Fig. 4). This is explained by the relocation of the population to live in the suburbs.

*Daugavpils (Latvia).* Latvia's second most populous city will shrink as well. The forecast shows that Daugavpils will have a population of 76,748 in 2023, so the city will decrease by 3,877. This decline is inspired by negative natural population change and the rapid departure of the population from the city. Daugavpils accounts only for less than 3% of the country's GDP, while the capital Riga accounts for 54% of GDP (Kozlovs, 2019: 437).

*Liepāja (Latvia).* The third largest city in the country will shrink by 7,469 people over the next three years, and it will be inhabited by 64,079 people in 2023. The main focus of its development in the early 21st century was on infrastructure and environmental development. However, this did not halt the population decline. Now the main development priorities of Liepāja are threefold: the development of the manufacturing sector, the development of the city's infrastructure, and the development of human resources. The development of the Creative Industry Centre could contribute to the stabilisation of the city's population in the future (Eglins-Eglitis, Lusena-Ezera, 2016: 126–127).

The forecasts show that the population will decrease in the three largest cities of Latvia. The slowest decline in the population is expected in Rīga (on average 0.3%), while the populations of Daugavpils and Liepāja will decrease annually by more than one percentage point (1.6% and 1.4% respectively).

*Tallinn (Estonia).* The forecast for the Estonian capital is slightly different. Tallinn will grow, and will have a population of 451,737 in 2023. Over the three-year-period forecast, the city will grow by 12,639 inhabitants (Fig. 5). The population is likely to increase only in the county of Harju, where the capital is (Statistics Estonia, 2020).

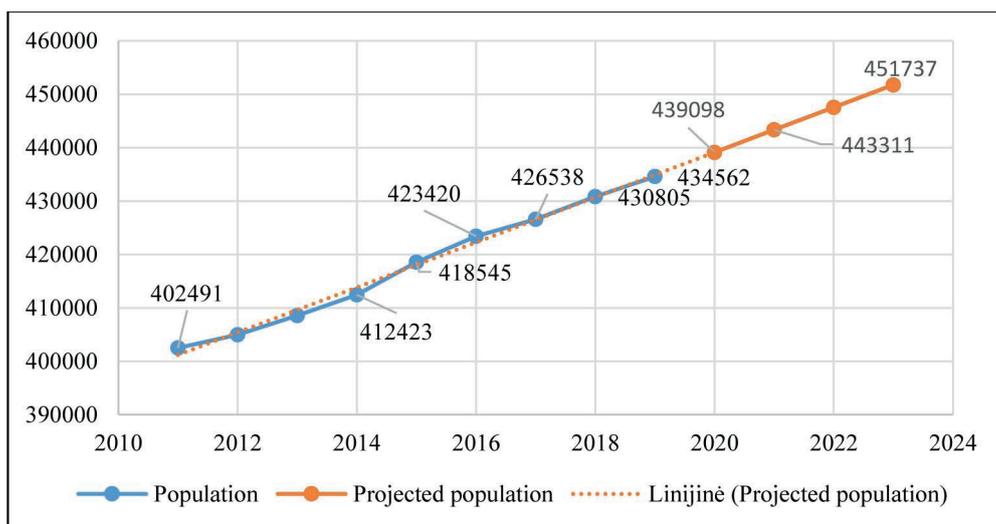


Figure 5. Changes in the population of Tallinn, and forecasts for 2011–2023

Source: Statistics Estonia, 2020

*Tartu (Estonia).* The demographic forecast for the second most populous city in Estonia is less positive. Despite the fact that the population has been growing over the last two years, it is expected to decline by 1,498 over the next three years. The city will have a population of 93,585 in 2023. On the other hand, it is attractive to investors, and open to innovation and knowledge-based business. The highly skilled workforce and the competitiveness of companies have great potential (Tartu – City of Good Thoughts, 2020). Therefore, from a demographic point of view, the development of the city has good prospects.

*Narva (Estonia).* Due to the rapid migration of residents to other regions of the country and abroad, and the negative natural change, this post-industrial border town is losing more than 1,000 inhabitants every year. The demographics of the third most populous city in Estonia are also negative. The population of the city will decrease, and will reach 52,799 in 2023. In this case, Narva will lose 2,085 inhabitants in the period 2020–2023. Only investment and new jobs in industrial parks will have a positive effect on demographic processes in Narva.

The trend analysis indicates that the populations of most of the largest towns in the east Baltic countries will decrease. Settlements with poor connections with larger cities will shrink particularly fast. There is no doubt that the migration of young people to other regions or towns will hamper rural economic development. Closing companies, shrinking jobs, an ageing population, and the socio-economic problems of the regions will hit many peripheral areas. Villages will have to change their functions (e.g. to create recreational areas). Failure to change will cause the villages to disappear. It is expected that farmers will acquire a new status in the future, and cooperation between them will be strengthened. Only the largest and the most intensive farms and active farmers will survive in the countryside (Poviliūnas, 2007). This will undoubtedly change the east Baltic countryside. The importance of transport and the need for a rational regional policy will become apparent in the future.

The monocentric structure of Latvia and Estonia determines the concentration of settlements and population around the capitals. As a result, regional disparities within the country are increasing. Thus, these east Baltic countries need to solve a difficult problem: to strengthen regional specialisation and attract residents and businesses to the regions, thus reducing territorial disparities. Functional links between urban and rural areas need to be developed in the future, as their impact on local development is currently limited. Latvia's national regional policy establishes a network of development centres consisting of nine towns of national importance, and 21 large towns of regional importance. This network forms the basis of the structure of polycentric settlements, which can reduce existing negative regional disparities and ensure balanced and sustainable regional development (The State of National Urban..., 2017).

In Estonia, strengthening the potential of small towns is one of the priorities of regional policy. Particular attention is being paid to the regeneration of disadvantaged urban areas in the northeast of the country.

In Lithuania, the complex development of cities should be aimed at sustainable development, the improvement of infrastructure, and the efficient use of land (Urbact, 2020).

Improving the quality of housing, that is, the improvement of the housing stock, must accompany these changes. Blocks of flats of Soviet construction need to be renovated, and the environment and their infrastructure improved. These are the main challenges for east Baltic countries, which they have to solve together and individually.

## Conclusions

The Soviet era was marked by an increase in the urban population: during this period, the urban population in east Baltic countries increased from 30% to almost 70%. During the Soviet era, differences in settlement between these east Baltic countries became apparent: Lithuania had a larger population, developed a wider network of settlements, and there were larger regional cities. In Estonia and Latvia, the importance of the capitals increased, their populations grew, but a smaller network of settlements was created, and the towns in the regions became smaller.

After the restoration of independence, the populations of these countries began to decline, which was especially felt in the major towns. Small towns with a population of up to 20,000 currently predominate in all three countries. However, the opposite process is also noticeable: the growth of smaller towns alongside large cities. In Lithuania, towns are growing next to the three largest cities, and in Latvia and Estonia next to the capitals. The population of rural settlements is declining very rapidly, but in all countries there is an increase in the populations of rural areas near the major cities in the country.

Trend forecasts show that from 2020 to 2023, Vilnius will grow by 1.1%, but the other two major Lithuanian cities will decrease by almost 4% (Kaunas 3.8% and Klaipėda 3.9%). In Latvia, all three major cities will lose population. Rīga is expected to lose about 1.1% of its population, the remaining two cities are expected to lose more than 4% of their population (Daugavpils 4.8% and Liepāja 4.3%). Further urbanisation and population growth are projected for the Estonian capital Tallinn. The population of Tallinn is expected to increase by 2.8%, while the population of the other two Estonian cities, Tartu and Narva, will decrease (by 1.5% and 3.7% respectively) in 2020–2023.

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## GYVENVIEČIŲ SISTEMOS KAITA RYTŲ BALTIJOS VALSTYBĖSE XX–XXI A. PRADŽIOJE

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### Santrauka

Trys Rytų Baltijos valstybės – Lietuva, Latvija ir Estija, nepaisant istorinės raidos panašumo, turi kai kurių apgyvendinimo sistemos skirtumų. XX a. dešimtajame dešimtmetyje Baltijos šalys atgavo nepriklausomybę, tačiau joms, kaip ir kitoms posovietinėms šalims, kilo naujų iššūkių, kurie vis dar formuoja gyvenviečių sistemą.

Atkūrus nepriklausomybę, miesto statusą gaunančių arba prarandančių gyvenviečių buvo santykinai nedaug, ryškiausias miestų skaičiaus pokytis buvo Lietuvoje, kai per trisdešimt nepriklausomybės metų šalies miestų tinklas sumažėjo 11-a miestų. 1989–2019 m. gyventojų skaičiaus pokytis buvo neigiamas beveik visuose Rytų Baltijos valstybių miestuose. Lietuvoje vidutinis miestų gyventojų skaičius sumažėjo 30,1 %, Latvijoje – 24,8 %, Estijoje – 29,1 %. Toks dramatiškas miestų gyventojų skaičiaus mažėjimas nulėmė tai, kad visose trijose valstybėse sumažėjo didelių – daugiau kaip 100 tūkst. gyventojų turinčių gyvenviečių skaičius. Apskritai Baltijos šalyse vyrauja mažų miestų sistema.

Didžiausias neigiamas gyventojų skaičiaus pokytis Baltijos šalyse buvo pasienio ir atokesnėse vietovėse įsikūrusiuose miestuose. Lietuvoje sparčiausiai miestai mažėjo šiaurės rytinėje bei pietinėje dalyse. Santykinai mažiausias miestų gyventojų skaičiaus pokytis buvo šalies centrinėje ir vakarinėje dalyse. Latvijoje miestai

sparčiausiai tuštėjo šalies vakaruose – Vidzemės ir Latgalos regionuose, mažiausiai kito Pierygos regionas. Estijoje sparčiausiai miestai mažėjo šalies šiaurės rytinėje ir centrinėje dalyse. 1989–2019 m. šiek tiek sumažėjo greta sostinės esantys miestai, o šalia Talino esantis miestas Sauė per tiriamąjį laikotarpį išaugo net 30 %.

Dar sovietmečiu Latvijos ir Estijos respublikų gyvenviečių sistemos formuotos monocentrinu pagrindu. Dėl to šiose valstybėse iki šiol išlikusi monocentrinė miestų sistema. Didelė gyventojų, pramonės ir paslaugų dalis sutelkta sostinės regionuose, nes tai patraukliausias teritorijos investuotojams. Tad gyventojų skaičius šiuose didmiesčiuose toliau auga. Tai lemia sostinės regiono ir likusios šalies dalies teritorinius skirtumus. Abi šalys savo planavimo dokumentuose plėtoja policentrinį požiūrį į gyvenviečių plėtrą.

Lietuvoje dėl tolygesnio gyvenviečių planavimo sovietmečiu gyventojai pasiskirstė tolygiau. Šalyje yra keturi miestai, kuriuose gyvena daugiau nei 100 tūkst. gyventojų, o atotrūkis tarp sostinės ir kitų didžiųjų miestų ne toks akivaizdus kaip Estijoje ar Latvijoje. Vis dėlto ir Lietuvoje vyksta metropolizacijos procesas. Spontaniška miestų raida aplink didžiuosius miestus kelia iššūkių šių teritorijų gyventojams dėl nepakankamai išvystytos infrastruktūros.

Šiuo metu visose trijose valstybėse mažėja miestų gyventojų skaičius, o gyvenviečių sistemose vyrauja nedideli, iki 20 tūkst. gyventojų, miestai. Tačiau pastebimas ir priešingas procesas – mažesnių miestų, išsidėsčiusių aplink didžiuosius miestus, augimas. Nors bendras kaimo gyventojų skaičius sparčiai mažėja, visose valstybėse greta didžiųjų miestų esančiose gyvenvietėse kaimų gyventojų skaičiaus auga.

Vidutiniškai trečdalis Lietuvos, Latvijos ir Estijos gyventojų gyvena kaimuose, šis santykinis dydis tarp trijų valstybių skiriasi nedaug, tačiau socialiniai, demografiniai bei ekonominiai procesai Baltijos valstybėse lemia, kad kaimų skaičius nuolat mažėja. 2001–2011 m. Lietuva prarado 1699 kaimus. Augantys miestai centrai traukia kaimų gyventojus, todėl nepalankioje geografinėje vietoje įsikūrę kaimai menksta ir nyksta, o arčiau centrų esančios gyvenvietės auga ir plečiasi.

Estijoje, remiantis paskutinių dviejų visuotinių gyventojų surašymų duomenimis (2000 m. ir 2011 m.), bendras kaimų skaičius sumažėjo 172 gyvenvietėmis ir 2011 m. tebuvo 4438 kaimai. 85 % Estijos kaimų turėjo iki 100 nuolatinių gyventojų.

Latvijoje 2000–2017 m. kaimų gyventojų skaičius mažėjo visoje šalyje ir visuose regionuose, išskyrus Pierygos regioną, kuriame kaimų gyventojų skaičius išaugo dvigubai: 2017 m. šiame regione gyveno 43 % visų šalies kaimo gyventojų. Kartu pastebima užmiesčių plėtra. Lietuvoje tokia plėtra vyksta aplink sostinę Vilnių, Kauną ir Klaipėdą. Estijoje ir Latvijoje – aplink sostines.

Atlikus trijų didžiausių kiekvienos valstybės miestų gyventojų skaičiaus kaitos prognozę 2020–2023 m. laikotarpiui, numatomas Talino ir Vilniaus miestų augimas. Likusiuose miestuose gyventojų skaičius tuo laikotarpiu turėtų mažėti.

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