

CIS Cities: Towards Sustainable Future The Commonwealth of Independent StatesRegional Report

for the United Nations Conference on Housing and Sustainable
Urban Development, Habitat III

General provisions



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CIS Cities: Towards Sustainable Future

The Commonwealth of Independent StatesRegional Report

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General provisions

The Commonwealth of Independent States (CIS) was established in 1991 on the basis of sovereign equality of all its members. All member states are independent entities under the international law. There are 10 permanent members and one associate member. As of January 1, 2014, member states of the union are as follows: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan (an associate member), Ukraine, and Uzbekistan.

The CIS is an important mechanism of interstate consultations and negotiations aimed at reaching agreement on various areas of multilateral cooperation within the Commonwealth and putting them into practice. The union plays an important role in ensuring security, stability and collaboration of eleven sovereign states in various spheres².

The Commonwealth of Independent States has a significant raw materials potential. It occupies

16.4 per cent of the world land surface (22.1 million square kilometers), being home to about 4.4 per cent of the world population (282 million people as of January 1, 2014). The density of population is 13 people per one square kilometre. The share of urban population is 66 per cent, the share of rural population is 34 per cent. There are 47 per cent male population and 53 per cent female population.

The CIS accounts for about 20 per cent of the world oil reserves, 40 per cent of natural gas, 25 per cent of coal, 10 per cent of electricity production, 25 per cent of the world timber resources, almost 11 per cent of renewable water resources and 13 per cent of agricultural land. Transportation and communication systems of the Commonwealth member states play an ever increasing role in global transport routes.

¹ The regional report is based upon the national human settlements development reports provided by CIS member states (the Republic of Armenia, the Republic of Belarus (draft report), the Kyrgyz Republic, the Russian Federation (draft report), the Republic of Tajikistan), conclusions and assessments provided by national focal points and experts (the Republic of Azerbaijan, the Republic of Kazakhstan, the Republic of Moldova), and other open analytic and information sources. ² Analytical report "Twenty years of existence of the Commonwealth of Independent States", 2011

² Analytical report "Twenty years of existence of the Commonwealth of Independent States", 2011

GENERAL TRENDS IN THE DEVELOPMENT OF HUMAN SETTLEMENTS IN THE CIS REGION

The period between 1996 and 2014 saw the transition from planned to market economy, which began in 1991 after the collapse of the Soviet Union and is still going on at present. There have been significant changes in the political, economic, social, demographic and environmental spheres of human settlements development in the region. The transformation of national economies did not bring only positive changes, it also put forward new challenges and threats, exacerbated some old problems that former Soviet republics accumulated during previous decades.

During the Soviet period in the history of the CIS states, there was, first and foremost, a significant growth of the industry, there emerged new cities and human settlements, and there was developed engineering, transportation and social infrastructure. There was growth in agricultural, mining and industrial sectors of the economy in the region. There was increase in the total population and, as a consequence, growth of urban population along with industrialization of the country. However, the location of cities and industrial facilities was largely focused on maintenance of a single economic complex, which had close relations with cities and industries of the former Soviet Union republics. The structure of newly created cities included a significant share of context-specific and objective-oriented settlements with focused specialization (monocities). This resulted in serious inequalities in spatial development, which often limited the urban economy capacity to adapt to new conditions that arose after the collapse of a single economic complex.

After obtaining their independence, the former USSR republics, the CIS member states, implemented their own, largely different, models of political and economic reforms, which had a significant impact on the development of urbanization processes. Many CIS countries experienced a rapid growth of urban areas and expansion of metropolises, where most population was concen-

trated and new social and economic environment was formed. The dynamics and underlying causes of these processes differed from country to country.

In the context of profound changes in management and control mechanisms and transition to a market-oriented mixed economy, the development was boosted in the cities of the Commonwealth member states, but at the same time they had to face a wide range of challenges. The most characteristic of them are as follows:

- disruption of established interstate economic links and consequent difficulties in providing industries with raw materials and energy resources, job cuts;
- social segregation of population;
- high concentration of population and industrial production in the largest and major cities;
- stagnation of small and medium human settlements (including monocities);
- exacerbation of traffic problems in capital and major cities;
- growing pressures on urban infrastructure that is rapidly deteriorating;
- unfavorable environmental setting in the areas neighboring with large industrial centers;
- risks of natural and man-made disasters;
- lack of effective management and maintenance system for multi-storey housing stock;
- lack of social and affordable rental housing for socially vulnerable groups of population;
- resource- and energy-intensive urban engineering and technical systems;
- inadequate use of innovative energy- and resource-saving technologies and measures;
- less governance of urban development processes, less efforts aimed at long-term spatial and urban development planning and forecasting, readjustment of general plans and other urban development projects;

- unclear and overlapping functions, powers and competences of central and regional executive authorities, as well as local governments;
- lack of finance for the implementation of development programs in urban areas.

DEMOGRAPHIC TRENDS AND URBANIZATION

Countries in the region vary in the nature and efficiency of demographic processes. Five countries: Armenia, Belarus, Moldova, Russia and Ukraine saw their total population decrease in 1996–2014. The population decrease (of the total population in 1996) was as follows: Russia – 3 per cent, Belarus and Armenia – 7 per cent, Ukraine – up to 11.4 per cent. In Moldova, taking into account the split off of Transnistria, the population decreased by 17.8 per cent. (Annex. Table 1.)

In three Slavic countries (Belarus, Russia, Ukraine), this is primarily a result of high mortality rate and low birth rate. External migration did not compensate for the natural decline in population. Only following the results of 2013 and 2014, Russia experienced a positive year-on-year natural population growth. During this period, there was a slight general increase in population in Belarus due to the positive migration balance, which also offset the natural decline of the population.

Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) and Azerbaijan belong to another group with positive natural population growth rate in the period under review. In Kazakhstan, this process was also strengthened by the positive balance of external migration. Thus, the increase in population (of the total population in 1996) was at a minimum of 12.5 per cent in Kazakhstan and at a maximum of 43 per cent in Tajikistan.

Generally speaking, there were two distinct polar zones with regard to the trends in population change and reproduction in the CIS during the period under review: the European zone and Armenia – with negative dynamics, restricted type of reproduction, and the Central Asian zone and Azerbaijan – with positive dynamics and extended type of population reproduction.

The regional forecast shows that there will be further population growth in CIS within the global trend of population growth, but it will be much smaller both in absolute and relative parameters. In the European part, the size of population practically evened out and will not be growing, according to forecasts the population will grow in the Central Asian countries (Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan, and Kyrgyzstan) and Azerbaijan. However, according to UN forecasts, the population of the CIS region as a whole will continue to decline, and by 2050 it will decrease by 37 million people.

In Armenia, Belarus, Moldova, Russia and Ukraine the population is ageing, with a decrease in working population. There is what is known as "demographic ageing", which puts into focus the needs of older people and increases the pressures on the health care, social and pension systems of these states. It is obvious that the decrease in working population will have a negative impact on labor markets and may lead to shortage of manpower in the above mentioned countries.

At the same time, Kazakhstan, Turkmenistan, Azerbaijan, Kyrgyzstan, Uzbekistan and Tajikistan are experiencing reverse trends. The median age of their population is about 26 years. In the future, the working population (aged 15 to 64) on the average will also constitute up to 70 per cent, which brings to the fore the problems of access to education, employment and housing provision.

Managing rapid urbanization

Cities, which concentrate financial, human, intellectual and other resources, play the leading role in the economy of the region, especially in its Eastern part. Capital and major cities are the main sources of economic growth, while small and medium cities

are generally inadequately involved in the economic and social development of the countries under review, which leads to imbalances in spatial development.

In 1995–2005, some countries (Moldova, Armenia, Kyrgyzstan, Tajikistan, and Uzbekistan) experienced a decline in urban population.

The level of urbanization has been growing since 2005, and currently is almost stable in the overwhelming majority of countries. Urban population was formed at the most steady pace in Belarus, whose growth rate amounted to 8 per cent of population during the period under review (Annex. Table 2.)

All in all, between 1995 and 2014 the share of urban population increased in Uzbekistan, Belarus, Ukraine, Russia, and Azerbaijan. A spike in urbanization in Uzbekistan was caused by the fact that about 1,000 large rural settlements were given the status of urban settlements in 2009. Despite the fact that the population of individual countries (Belarus, Russia, and Ukraine) decreased during the period under review, the number of city dwellers and their share in the total population of the country steadily increased. Over several decades, the internal migration flows in these countries were moving mostly from rural to urban areas.

At the same time, the proportion of the urban population decreased in Moldova, Armenia, Kyrgyzstan, Tajikistan, Turkmenistan, and Kazakhstan. As a result of administrative reorganization of the territories in Kazakhstan in 2006, urban settlements that were out of control of cities with a republican, urban and regional status were transformed into rural settlements, which decreased the level of urbanization in the country. In Armenia, this was caused by active outmigration from the country, in Moldova it was not only the result of outmigration, but rather that of a one-off readjustment of statistical data that reflected the situation after the secession of Transnistria. During the period under review, Armenia, Kyrgyzstan and Tajikistan, experienced the process of deurbanization caused by deindustrialization and outmigration from cities to rural areas because of unemployment. High natural increase in rural areas resulting from

the Central Asian traditionally large families with many children also made its contribution. Evidence of "false urbanization" can be found in this part of the region.

Today, the most urbanized countries in the CIS are Belarus (76.8%), Russia (74.1%), and Ukraine (69%).

Most part of urban population in the CIS countries is primarily concentrated in major and larger cities. Some countries experience an uncontrolled, disorganized urban sprawl to the neighbouring, notably agricultural, areas. At the same time, there is a decrease in population in medium-sized and small cities.

There was an active urban growth of capital cities in the period under review. At present, capitals of the CIS countries are fairly large cities. The population exceeds 1 million people in seven of them. Currently, from 8.4 per cent (Astana) to 57 per cent (Yerevan) of country's urban population live in the capital cities of CIS countries. (Annex. Graph 1.)

Capital cities, administrative centres and major cities of the CIS play the leading role in national economies. They attract from 40 to 80 per cent of total investments, which each country receives from external sources, or which domestic enterprises and other investors make. On the average, these cities provide 30 per cent larger volume of paid services, retail sales and civil construction per 1,000 citizens. At the same time, these cities have 30–40 per cent lower level of actual unemployment than other parts and regions of the countries, and, in recent years, the number of unfilled job openings in some of these cities has exceeded the number of job-seekers; that is, there is labor shortage, which is partially offset by internal or external migration. At the same time, the high proportion of urban population in the capital cities has had a negative impact on uniformity of settlements across the country and increased the burden on social, engineering and transportation infrastructure of capital cities.

Urbanization in these countries is characterized by a continuous inflow of rural population and ever increasing pendulum-like movement of the population between rural areas and nearby small towns

and major cities, as well as by formation of extensive suburban areas. Growth and development of suburban areas in major cities (suburbanization) results in the formation of urban agglomerations. There is a cluster of human settlements (predominantly, urban-type settlements) being formed around major urban centres, which agglomerate into a single entity due to intensification of economic and cultural relations.

The emergence of agglomerations in the CIS region is an objective and natural process, characteristic of the contemporary phase of urbanization and development of productive forces, which is accompanied by intensified concentration of population, industrial and non-industrial activities in urban clusters. Agglomerations emerge in the places where the development potential is high and which have the most favorable conditions for the concentrated development, with their cores being top-priority growth centres – capital cities, ports, major cities, recreational complexes, bases for the development of new areas rich in natural resources.

However, in some countries the agglomeration process is random and disorganized, and follows a negative uncontrolled scenario of "false urbanization" with consequences characteristic of the latter, which exacerbate social and economic, environmental and transportation problems in the development of the agglomeration core and human settlements that surround it. This is largely due to the complexity and novelty of agglomerations as objects of social, economic and urban design.

Meeting the needs of different age groups

The number of young people in the region peaked in 2000 and somewhat declined in the last decade, both in absolute terms and as a proportion of the total population (from 26 down to 23 per cent). The countries of Central Asia are the "youngest". In Turkmenistan, Azerbaijan, Kyrgyzstan, Uzbekistan and Tajikistan, the median age is about 26 years. People aged 15 to 29 constitute 40-50 per cent of people aged 15 to 64. In other countries this figure does not exceed 40 per cent.

According to the World Bank, by 2013 all countries had declared that 100 per cent of youth aged 14-26 years were literate³. However, since 2000 there has been a downward trend in annual government expenditure on education in most CIS countries. This has an adverse effect on the quality of secondary and higher education, logistical support for schools and universities, and level of training of young professionals. At the same time, higher education becomes commercialized. Currently, Belarus is the leader in higher education outreach among the CIS countries.

A positive trend is the creation of a common educational space in the CIS region. There is equitable access for citizens to educational institutions; mutual acknowledgement and equivalence of secondary (general) and secondary vocational (special) education certificates; and advanced training and retraining for professionals.

According to various estimates, the unemployment rate among young people in the region is about 13–14 per cent. According to the International Labour Organization (ILO), there has not been any significant increase in the official unemployment rate in the CIS recently. Younger workers are engaged in low-quality, unstable forms of labor to a greater extent than other groups of workers. Young people in the region are mostly employed in the informal sector of economy. Their share is particularly high in agriculture, construction and services sector. According to ILO estimates, by 2017 the CIS unemployment rate among young men will be at 17.3 per cent, and that among young women – 17.7 per cent.⁴

Elderly people belong to one of the most vulnerable groups of population based on the income level in the region. During the reporting period, the average pension increased, but it is still insufficient to meet the needs of beneficiaries. In 2013, an average pension varied from 20 to 40 per cent of an average gross salary in a majority of the CIS countries, and only in Kyrgyzstan and Ukraine it was about 50 per cent of an average gross salary.

³ <http://data.worldbank.org/>.

⁴ <http://www.belta.by/economics/view/uroven-bezrabotitsy-v-sng-budet-snizhatsja-mot>.

The challenges of reforming the social security system for the elderly people, notably pension reform challenges, are addressed slowly and inconsistently in some countries. There are concerns that the health care system is not ready for the growing number and specific needs of elderly patients in many countries. For instance, embryonic state or complete lack of geriatric services in most countries bears witness to this fact.

Seven of eleven countries are developing national strategies and action plans for the implementation of Madrid International Plan of Action on Ageing.

Another group that requires particular attention is children. After the collapse of the USSR, there was a decrease in childcare facilities across the CIS. As a result, pre-school education could reach fewer children. After these figures fell almost to a critical level, they started to grow again in 2000. The analysis shows that this problem is most pressing in Central Asian countries and Armenia. Against their background, Belarus, Kazakhstan, Moldova and Russia seem to be the most successful countries. There are many problems that all republics share: shortage of places in kindergartens, particularly in major cities, deterioration of their material and technical facilities, lack of teaching staff. At the same time, there appeared a wide range of new forms of children education – private child care centers, infant development schools, etc.

Ensuring gender equality in urban development

Women live longer than men in all Commonwealth states. In 2013, the gap was from 4.2 years in Tajikistan to 11.2 years in Russia. The situation in Belarus (10.6 years), Ukraine (9.9 years) and Kazakhstan (9.3 years) is not much better than in Russia. The large gap in life expectancy results in imbalances in the age and gender pyramid, particularly in elderly age groups.

There has been noticed a significant improvement in the position and status of women in the CIS countries. Over the past years, the CIS states adopted constitutions that contained relevant arti-

cles, acts and regulations on gender equality. All of them comply with the democratic international legal norms. In addition, all countries have established relevant state authorities and non-governmental organizations responsible for the advancement of women in society.

CIS is the only region where the number of women that have paid jobs in non-agricultural sector exceeds the number of men and is more than 50 per cent. CIS countries have the highest number of young women enrolled in higher education institutions in the world: 131 young women per 100 young men in colleges and universities⁵.

All countries are taking methodical efforts to increase women's role in political decision-making in their societies. Taking into account all professional fields, the gender ratio in the CIS countries is almost equal, and the share of women among senior officials and managers reached 37 per cent. In every country, women hold rather high offices, including those of Prime Ministers, Ministers, Speakers of Parliament, but their share is still insignificant, and they often head over ministries and agencies that supervise social policies: ministries of health, education, labor and social security, culture. In parliaments of most countries, the proportion of women does not reach the critical mass of 30 per cent, which is considered to be necessary for women to have an adequate influence on the outcome of political debate.

The main contradiction in the current status of women in the labor markets in the CIS countries is that women continue to seek paid jobs at a time of decreasing demand in general, and for women in particular. Thus, more discrimination at work is seen. Women fall into the category of those who are first to be fired and last to be hired. Having many, notably minor, children and being older than 45 also makes women even more vulnerable in the labor market.

The CIS legislations specify the dependence of salaries and wages on the amount and quality of workers' labor contribution. On average, women's wages are lower and are 60–75 per cent of men's. This is the result of women having lower job titles,

⁵ Report on the implementation of the Millennium Development Goals specified in the Millennium Declaration (2010)

differentiation of wages across industries, concentration of women in traditional sectors of economy with relatively low-paid jobs (education, healthcare, culture, social work), ongoing gender segregation in the workplace, etc.

According to UNDP Human Development Report (2014), Belarus had the best gender equality index among the CIS member states in 2013. It was

ranked 28th among 149 countries of the world. This index reflects the inequality in gender relations in three dimensions: reproductive health, level of influence and economic activity. Other countries were ranked as follows: Moldova – 51, Russia – 52, Kazakhstan – 59, Armenia – 60, Ukraine – 61, Azerbaijan – 62, Kyrgyzstan – 64, Tajikistan – 75⁶.

CHALLENGES AND THREATS

- The most serious demographic threat and the challenge to the future of five CIS countries (Armenia, Belarus, Moldova, Russia, Ukraine) is the downward trend in total population resulting from low birth rate, high mortality and active outmigration of the working population (with the exception of Russia) to other countries in search of decent work, higher salaries and social security.
- Another serious challenge to the future of European countries (Armenia, Belarus, Moldova, Russia, and Ukraine) will be a problem of naturally ageing population and decrease in the share of working population, and shrinking labour markets. These countries will also face the increased pressures on their pension, health care and social welfare systems. Under the conditions of limited capacity of external migration, sustainable development requires a boost in productivity.
- For most Central Asian countries and Azerbaijan, challenges of urbanization are associated mainly with high rates of population growth, which result in the need to create environment for the development of quality education and employment systems. Population growth, in case of seriously limited agricultural development, will create pressures on the labor market. In the long term, migration from rural areas to cities will be increasing. These processes are galvanized by the decrease in employment opportunities in rural communities resulting from decrease in land areas and deterioration of water supply. People from rural areas settle down mainly in major cities, but housing, infrastructure and other capacities, as well as employment opportunities in cities, are not yet in line with seasonal and constant influxes of new dwellers. These challenges will also include the following problems: limited power supply to the most populated regions, high cost of transport access for small and medium-sized businesses located in rural areas⁷.
- Growth and concentration of population in major cities and economic downturn in small and medium-sized cities will create significant future challenges for all countries in the region.
- The process of urbanization will intensify under the influence of capital, major and large cities. Uncontrolled development of agglomerations poses a threat to the balance of the housing system.
- In Belarus, Russia and Ukraine, internal migration from villages to cities contributes to the imbalance in rural areas development and threatens food security in these countries.
- Youth unemployment and inactivity pose a threat to the stability of society, because failure to find a job can instill the feeling of futility and frustration. Social exclusion and sense of injustice can lead to resentment and antisocial types of behaviour.
- Pensioners' low incomes pose a threat of increased poverty in the region.

⁶ UNDP Human Development Report, 2014

⁷ Analytical report – Urbanization in Central Asia: Challenges, Problems and Future Outlook. Centre for Economic Research. Tashkent, 2013

LAND AND URBAN PLANNING

Spatial systems of the countries in the region were formed under the influence of factors inherent in the planned economy and administrative management approaches characteristic of the Soviet period. In many of them, the transformation of economies was marked by chaotic spatial development of human settlements. Many countries have not yet formed an effective spatial development policy, which could overcome the legacy of planned economy and transition period, and could contribute to the development of internal and external capacity of the state. Lack of spatial planning documents (general and detailed plans) in some cities hinders their balanced economic and urban development, as well as finding an optimal location for new housing construction and infrastructure, and comprehensive reconstruction of existing buildings. There is a general trend of unsustainable use of urban spatial resources. Industrial zones account for a significant share of land management structure in large cities, there is a slow process of reorganization of industrial zones, conversion and removal of hazardous industries out of the central urban areas⁸.

In each of the countries, urban planning is carried out under national regulatory and legal acts. Such countries as Russia, Tajikistan, Turkmenistan and Azerbaijan adopted Urban Development Codes, others have laws that regulate architectural and urban development and construction activities in an integrated manner.

In the Soviet Union and in post-perestroika period, urban development was often accompanied by urban expansion to remote zones, which resulted in low living standards in new developments, overstretched engineering and transport infrastructure, more traffic on the roads, decline of the historic centre⁹.

The main specific features inherent in the cities of the former USSR countries:

- residential neighborhoods with high density of prefabricated modular houses located on the outskirts of cities. It is typical of CIS cities to have neighborhoods with five-storey houses ("Khrushchev-era apartment blocks") constructed in 1960s and nine-storey apartment blocks constructed in 70-80s;
- high share of industrial buildings in the area neighboring with the center;
- insufficient development of trading services in the center;
- lack of adequate infrastructure for the high density of population in the city center, its improper maintenance;
- problems with property rights and unregulated structure of land ownership in the center;
- underdeveloped system of local taxes, which is based on subsidies rather than local resources¹⁰.

The laws of the land market are gradually changing the spatial structure of the post-Soviet cities. This is particularly evident from a sharp increase in the cost of housing in the city center, from growing gap between the cost of housing in the city center and densely populated suburbs, where prefabricated modular houses prevail. There has been an increase in the share of office and retail floor space in the center compared to the floor space of residential development.

At the same time, following the global crisis, spatial development has got a new focus: lack of sufficient funds to ensure extensive development and construct expensive road, transport and social infrastructure from scratch. The transition to a market economy has put forward new requirements for the territorial management aimed at increasing their competitiveness and investment attractiveness. At the same time, it is still important both to preserve the social dimension of urban development, and to

⁸ National report of the Russian Federation to the United Nations Conference on Housing and Sustainable Urban Development, Habitat III, 2015 (draft)

⁹ National report of the Russian Federation to the United Nations Conference on Housing and Sustainable Urban Development, Habitat III, 2015 (draft)

¹⁰ Bertaud A., Malpezzi S. The Spatial Distribution of Population in 48 World Cities: Implications for Economies in Transition. World Bank, 2003; Bertaud A. The Spatial Structures of Central and Eastern European cities: more European than Socialist? // Winds of Societal Change: Remaking Post-communist Cities: International symposium on post-communist cities the Russian and East European Center. University of Illinois, 2003.

take into account the interests of vulnerable groups (the elderly, children, the disabled, etc.)

During the period under review, major cities – centers of population attraction – experienced the process of infill development, which resulted in quite rapid depletion of the resources of the central and median urban areas. Infill development projects resulted in fragmentary improvement of the urban environment of individual areas with the deterioration of urban functional characteristics as a whole (lack of social infrastructure, transport infrastructure). The resulting urban structures make it practically impossible to complete the transformation with regard to, for example, harmonizing and increasing the density of road networks. Mechanisms of comprehensive reconstruction of built-up areas (both residential and industrial) were underused or not used at all. The main problem was the lack of coordination in the interaction between authorities and developers. This resulted either in non-comprehensive development (lack of social facilities and other infrastructure), or in urban imbalances with a lack of local and city-wide workplaces and limited transport accessibility of such places¹¹.

The main instruments of urban growth control and containment should include spatial planning documents adopted at various levels. In addition, there are land management and development regulations (urban development zoning), which are developed and approved at the local level, for example, in the Russian Federation.

General plans of cities and towns in many countries of the region were designed between 1960 and 1990 and were not updated until 2000-2002. This was primarily a result of social and economic conditions, administrative and territorial reforms, unfavorable financial environment at the local level. Thus, general plans for many housing settlements have already become obsolete despite the fact that they have not been completed.

Efforts to develop planning documentation in a number of countries in Central Asia and Transcaucasus are not vigorous enough, city authorities' control for urban development and construction is insufficient, which factors into increased uncon-

trolled (illegal) development and, sometimes, growth of residential suburban areas, and, as a result, urban sprawl.

New general plans of CIS capital cities were mostly developed or revised after 2007, viz.: Baku (Azerbaijan) – 2007, Yerevan (Armenia) – 2005, Minsk (Belarus) – revised in 2015, Astana (Kazakhstan) – revised in 2007 and 2011, Bishkek (Kyrgyzstan) – 2008, Chisinau (Moldova) – 2007, Moscow (Russia) – 2010, drafted in 2015, Dushanbe (Tajikistan) – 2009, Ashgabat (Turkmenistan) – 2007 Kyiv (Ukraine) – drafted in 2010.

A distinctive feature of these projects is their spatial approach – capital cities planning is viewed as part of addressing issues of suburban settlements and environmental problems.

Nevertheless, today all countries in the region face a range of challenges related to the prospects of their spatial organization and establishment of a new spatial framework that would meet the long-term objectives of social and economic development.

Urban mobility

Since 1996, there have been significant changes in urban mobility in all CIS countries. Almost in all countries, even compared with 2000, car ownership increased twofold, while in Kazakhstan threefold (Annex. Table 3.) At the same time, this process exacerbated many environmental problems (increased air pollution and noise levels), and also resulted in the shortage of parking space both in major city centers and in residential areas.

Along with large-scale car ownership, there was a decrease in the availability of public transport services and degradation of the transportation complex in the cities. Although public transport continues to play a leading role in satisfying the transport needs of the population, its role has substantially declined (with the exception of subway system, which still plays an important role in ensuring mobility of the population in major cities). Since the beginning of the 1990s, the rolling stock in the cities has been ageing faster than it could be replaced – there has been a mass disposal of ve-

¹¹ National report of the Russian Federation to the United Nations Conference on Housing and Sustainable Urban Development, Habitat III, 2015 (draft)

hicles. As a result, the rolling stock of most types of public transport has significantly decreased. During the period under review, there was a degradation of public transport systems in the cities of the region, which resulted in worse urban mobility. Also, all major cities in the region are facing an increasing problem of transport infrastructure – there is a lack of streets, roads, rail lines.

Only in recent years, there were positive changes in transport sector regulations and devel-

opment of public transport, some cities are beginning to implement the idea of providing dedicated lanes for urban public transport.

In recent years, cities have been taking action to develop cycling traffic and relevant cycling infrastructure, which increases mobility of the population and reduces dependence on cars and public transport.

CHALLENGES AND THREATS

- Spatial development policies that have not been fully formed pose a threat to sustainable urban planning. Lack of relevant urban planning documents in a number of CIS cities results in chaotic development, hampers optimized allocation of new construction projects, hinders complex spacial reconstruction at the level of entire neighborhoods and groups of buildings. Urban development practices are often not consistent with priorities of spatial planning documents.
- Urban sprawl poses a threat to neighboring fertile agricultural lands and landscape areas.
- It should be expected that future threats will increase the risk of urban environment degradation. Higher volumes of construction, without provision of sufficient infrastructure, result in poor quality and functionality of urban environment.
- The degradation of public transport systems results in the deterioration of urban mobility conditions and effectively poses a threat to the spatial connectivity of urban areas.
- Development of transport infrastructure in urban areas will be one of the most serious challenges in the years to come, both for society and for the environment due to increase in the number of vehicles.
- There is a clear threat of losing skilled staff both in urban planning science and in urban development design and management. There is a heavy outflow and ageing of workforce.

ENVIRONMENT AND URBANIZATION

CIS countries in the region differ in their geographic position, natural and economic conditions. They are different in their influence on the climate and different in their vulnerability to its changes. Nevertheless, urbanization has a negative impact on environment in all the countries. Urban environmental problems, accumulated over many years, have become even worse with the change in economic conditions.

Currently, there are following negative trends in the region:

- deterioration of air quality, increased noise levels, traffic congestions and destruction of green space due to the growth of car ownership;
- reduction of landscape and recreational areas, and degradation of the surrounding agricultural land, as a result of the expansion of urban areas;
- pollution of water resources due to the poor condition of water supply, sewerage and waste water treatment systems, especially in small towns;
- threat of groundwater contamination due to the use of outdated technology of waste management and recycling;

Today the environmental conditions are the main reason for public health deterioration, reduced life expectancy and increased mortality. According to WHO, 20-40% of health problems are estimated to be caused by the environment.

Since 1996, there has been region-wide rise in average annual temperatures in the CIS countries. In 2014 alone, the average annual air temperature was 1.1oC over the CIS standard values of 1961-1990. In general, the linear annual average temperature trend in CIS countries in 1976-2014 was two and a half times higher than the rise in global temperatures and a third higher than the rise in average temperatures in the Northern hemisphere land areas¹².

All countries in the region have ratified the Kyoto Protocol, and have national policies and reg-

ulations for greenhouse gas emission and absorption. However, the data collection, monitoring and reporting system for greenhouse gas emissions in the CIS cities is underdeveloped. Nevertheless, in recent years, the economic instruments aimed at improving the environment that are contained in international agreements between CIS member states, as well as in their national legislations, have yielded results.

In general, the environmental conditions in individual CIS countries are slowly improving, with the exception of certain regions, where environmentally harmful productions were shut down (or substantially reduced their activities) following the rupture of economic ties, military conflicts and other reasons. The main stationary sources that contribute to the pollution of the environment and influence the climate include energy industries, chemical and petrochemical industries, foundries and construction materials industries. The mobile sources account for up to 70-80 per cent of pollutant emissions into the atmosphere.

Within the CIS, there are many regions with unfavorable environmental conditions, which are similar or identical to the concept of an "ecological disaster zone." This pattern can be seen in such zones as the Aral Sea and the Caspian Sea, the Urals, areas contaminated after the Chernobyl accident, and others.

Natural threats are widespread in all seven countries of the Caucasus and Central Asia. Significant parts of their territory are mountainous areas and almost all types of natural hazards are present here, such as: earthquakes, landslides, mudflows, avalanches, floods and droughts. There are also natural and geographic problems: limited water, land and energy resources, soil erosion, desertification, which also has a negative impact on the urban and rural life.

At the same time, there is also a risk of man-made disasters. At present there is a significant threat to the environment from the nuclear power plant in Armenia that is located in a seismically dis-

¹² N.V.Zaytseva, I.V. May, P.Z. Shur. Actual problems of inhabitancy state and health of the population in Commonwealth of Independent States. Federal Scientific Center for Medical and Preventive Health Risk Management Technologies, Perm, 2012

advantaged area¹³. Moreover, the communities of the republic have not been fully provided with seismic risk maps, which are essential for sustainable development of settlements.

According to experts, the region will experience more disasters caused by exposure to natural hazards related to hydrometeorological conditions, and increased damages that will notably affect rural economy.

Major chemical industries, oil refineries, nuclear waste landfills, etc. also pose threat to the CIS countries.

To minimize the consequences of these problems in the countries, there was developed a legal framework, there were signed international conventions and adopted state programs and action plans to protect the environment, mitigate the consequences for the ecosystem and reduce the risk of man-made disasters.

Urbanized territories of the CIS produce the largest emissions of pollutants into the environment, they are home to almost 150 million people (70 per cent of the population in the region). It is obvious that capital cities, major industrial centers have higher levels of environmental pollution. Operating enterprises, heat and energy producing facilities, that are generally located directly in housing settlements, discharge a significant amount of various air pollutants. Stationary sources and vehicles discharge more than five hundred pollutants into the atmosphere, including extremely and highly hazardous ones. In general, areas of high and very high pollution in the CIS countries are home to more than 90 million people (31 per cent of the population in the region). The atmosphere monitoring analysis indicates an increase in concentrations of heavy metals and particulate pollutants. These negative trends result from the growth of the stock of vehicles operating on diesel fuel, poor road conditions and traffic management. The share of mobile sources in the emissions of pollutants into the atmosphere in Commonwealth countries is 71–75 per cent of total

emissions. This figure can be even higher in capital cities. The share of cross-border atmospheric transport remains within 70–90 per cent in total environmental fallout of individual substances (sulphur, oxidized nitrogen, lead, cadmium, mercury).

In 2012, there was a decrease in pollutants emissions to atmospheric air from stationary sources in the CIS region taken as the whole and per 1 square kilometer (compared to 2005). However, there was a slight increase in this indicator per capita (from 110 kg in 2005 to 112 kg in 2012). The decrease in emissions was caused not only and not so much by environmental measures, but, to a greater extent, by the decline in industrial and agricultural production.

The problem of the quality and use of water resources is equally important and significant. The greatest amount of waste water in the CIS comes from the housing and communal sector (over 60%) and industry (20%). Water bodies are polluted mostly by scattered sources in urban and agricultural areas.

In 2013, the Commonwealth countries signed an agreement that established cooperation between CIS members concerning matters of environmental protection. The document contains provisions that stipulate the development of common approaches and the implementation of agreed measures to revive rare and endangered flora and fauna, implementation of innovative environmental protection projects. There was created the CIS Interstate Environmental Council to ensure the coordination of environmental protection actions. There are plans for cooperation in developing international environmental protection and safety programs and projects. CIS countries are focused on: sharing information on environmental conditions; cooperation in the field of environmental technologies; development of special monitoring tools; joint prevention and management of natural and man-made disasters.

¹³ The State of European Cities in Transition 2013, UN-Habitat, 2013

CHALLENGES AND THREATS

- At present, the most pressing environmental challenges are still related to changes in climate and ozone screen, decrease in biodiversity, desertification, water and air pollution, accumulation and management of production and consumption wastes.
- The existing sanitary and hygienic conditions in the CIS countries are exacerbated by the emergence of brand new challenges and threats. These include the development of new types of industries, which discharge complex chemical compounds with unknown properties and nanoparticles into the environment, increase in diversity and intensity of noise and electromagnetic exposure of the population¹⁴.
- There are great concerns about the public health in the urbanized areas, which account for the maximum amount of pollutants. It is expected that there will be further increase in the amount of emissions from stationary and, for the most part, mobile sources due to the increase in economic activities (especially in Central Asia and Transcaucasus).
- CIS countries face the risks of increased adversities caused by natural and man-made disasters, and seismic activity, as well as increased damages that will particularly affect the rural economy. Modern approaches to emergency situations prediction and preventive response will require the establishment of a global network of anti-crisis centers in the future, which will effectively improve cooperation at the international and national levels. It is important to create a multilateral international mechanism with high level of emergency response to overcome the effects of man-made and natural disasters.

¹⁴ N.V.Zaytseva, I.V. May, P.Z. Shur. Actual problems of inhabitancy state and health of the population in Commonwealth of Independent States. Federal Scientific Center for Medical and Preventive Health Risk Management Technologies, Perm, 2012

GOVERNANCE AND LAWS

The transition to a market economy made each of the CIS members develop national laws consistent with the modern challenges of urban development. First and foremost, it required the definition of roles, powers and responsibilities of local authorities and municipalities in development of their regions. Previously existing norms and methods of spatial planning and urban development were reviewed, there were also identified new country-specific priorities and approaches in this area.

The laws of the CIS member states give local authorities (public administration) the following powers: integrated development of the municipality area; independent management of the municipal property, including land; approval and administration of local budgets; establishment of local taxes and duties; approval of social, economic and cultural development programmes; meeting public services needs of the population; public order protection, local transport organization etc. As a rule, constitutions, laws and regulations of the countries in the region contain provisions to provide public financial and material support to local self-governments, as well as provisions to recover costs local governments incurred following the resolutions made by government authorities.

Currently, the region is still going through administrative reforms. It must be acknowledged that not all countries have developed an effective system of urban governance. Most often, local authorities have no clear division of functions, powers, competences and responsibilities. Powers of local executive bodies are not backed by adequate financial, budgetary, administrative and legal resources. The principle of centralized management is still dominant, which is detrimental to the development of local self-government. Urban management methods used by local self-government authorities are associated mainly with the regulation of investment and construction activities and real estate market, and being business-oriented, they often do not take into account the interests of local communities, which should be the main criterion of effective

management. The adoption of the Federal law «On Strategic Planning in the Russian Federation»¹⁵ in 2014 is an example of improvement in legal conditions for the municipal government in Russia.

Resilient status of city government largely depends on how successful it can be in establishing a city management system that is adequate to present and future environment, and in facilitating urban development. National and local governments of former Soviet republics recognize that public participation is of key importance and is required for the improvement of urban environment and consideration of interests of various groups and representatives of business entities. It can be considered an important shift towards democratization and decentralization of the planning process compared to earlier approaches. However, it must be recognized that the practice of consulting with the public, NGOs and the business community on urban planning, their engagement in public discussion of urban development projects, has not been fully regulated across the board and is of a formal nature. The public is often confronted with an accomplished fact of accepting authorities' decision that is reflected in urban development plans. There is also a problem that some general plans are classified. It is not uncommon that during public discussions of already developed general or detailed plans, there are conflicts between local authorities, housing designers and citizens, especially in case of densification of existing houses, roads, reduction of green spaces or demolition of houses. It is obvious that there is a need for consultation with the public on the planned urban development activities, with consideration of its interests and search for a compromise, before starting to develop planning documents.

It is clear that the emergence of a democratic society largely depends upon continuous and constructive dialogue between the public, businesses and government authorities.

¹⁵ This Law was the first to legislatively determine that strategic planning in Russia can be implemented at the level of municipalities. The Law consolidated the positive experience of social and economic development planning that was accumulated at the federal, regional and municipal levels.

CHALLENGES AND THREATS

- The countries of the region are still on their way towards administrative reforms. There is a threat from the principle of centralized management that is still dominant and detrimental to the development of local self-government. At the same time, there are examples of poor local governance that results in chaos and further harm do the idea of balanced spacial development. It is obvious that in the context of increasing urbanization, countries of the region should be ready to improve and introduce more effective and flexible systems of urban governance.
- There is a threat that local governments' powers will be limited, and they will lack resources for independent development and lack capacity to generate these resources. There is low fiscal autonomy of municipalities and high dependence on the decisions taken outside the cities.
- In general, the main challenges and threats in urban development management require improvements of legislative regulations that take into account the best law-enforcement practices, harmonization of various types of legislations, as well as the need to build the capacity of senior executives – improvement of management technology.
- The practices of effective population engagement in urban planning management and development have not been fully regulated. There is a threat that local authorities may ignore public interests and disregard the needs of the population, which may cause conflicts and social tensions in the society.
- Cross-border threats are rapidly growing. Criminal community is becoming consolidated, including at the regional and international levels. There is still a significant threat of terrorism and other manifestations of extremism, and organized transnational crime in the area of security. There is a new challenge of IT crimes.

URBAN ECONOMY

Cities remain the centers of economic capacity of the countries in the region, but their economic base changed dramatically in the period under review. There was a general downward trend in the share of manufacture in traditional industries of the primary sector of economy. At the same time, the service sector grew at superior rates.

The reviewed period, from 1996 to 2014, can be divided into several stages: the period before 2000 – the economic downturn. During this period, there was a sharp decline in production operations in the region, that was caused by the interruption of economic ties, reduced demand for traditionally manufactured products, and decrease in city-forming enterprise capacity as well as aggravation of social and economic environment in human settlements. In 90s, all countries of the CIS region experienced sharp decline in real incomes, shrinking domestic demand, forced sales of enterprises to pay debts, deindustrialization of economy, and high unemployment. 2000-2007 – compensatory growth. The favorable economic environment at the global markets had a positive impact on the gross domestic product dynamics: it has been growing steadily since the beginning of the century, both in nominal and real terms, although the growth rate is not sustainable. After 2008 – the effects of the global economic crisis on the national economies in the region. In 2009, Ukraine, Armenia, Russia, Belarus and Moldova saw a significant decline in economic indicators, while the economies of Azerbaijan, Turkmenistan and Uzbekistan retained a fairly high rate of growth. The different responses to the crisis reflect the level of differentiation of these countries in terms of their economic structure and participation in the global economy.

Generally speaking, GDP began to grow steadily in 1993-1996, which varied from country to country, and, in some countries, was approaching or reached the 1991 level, which is used as a reference point. Only 2009 was a "disastrous" year due to the influence of global economic crisis on the CIS economies. (Annex. Table 4.) During the period

under review, the economy was mostly influenced by intensive factors of gross domestic product growth.

GDP growth, increase in capital investment were bound to have a positive effect upon urban development in the region. However, it is necessary to bear in mind that this is mostly the case for capital and major cities, which are the centers for attracting investment, and development of production operations and services. Major cities increasingly turn into multifunctional centers, utility and infrastructure capacities determine how they look to a much greater extent. In general, there was a decrease in the share of industries (manufacturing and extractive industries) and an increase in the share of services (real estate, education, health, governance) in the gross value added structure. In recent years, the urban production capacities improved through the use of new forms of organization of specialized industrial areas, which incorporated enterprises with shared infrastructure and cooperation ties. "Production clusters" have been formed. During the period under review, there was an active development of small and medium enterprises, which make a significant contribution to the urban economy. The contribution of small and medium enterprises to the economy, replenishment of profitable budgetary items of different levels, employment generation became decisive factors for urban development in each country. However, the promotion and stimulation of small and medium enterprises is mostly carried out without reference to their innovation component. According to the Innovation Index, which characterizes the level of interaction between science and business and speed of implementation of scientific research results in the economy, the CIS states are ranked among top thirty countries. Nevertheless, they are developing technology parks, industrial parks and science cities. In 2005, in Minsk there was established a high-tech park specializing in export-oriented software development (the first in the CIS and CEE), alongside this one there are 7 operating technology parks. Russia is

constructing 13 technology parks in 11 entities of the Federation, 73 urban and rural settlements across the country are science cities; the number of industrial parks was over 100 in 2014. Azerbaijan will construct 4 technology parks, there are 8 operating technology parks, 4 design bureaus and 3 technology transfer centers in Kazakhstan, Ukraine has 8 of them.

Decrease in government funding of scientific research resulted in an overall decrease in the number of professionals conducting research and developing new technologies. Thus, in fact the innovative dimension of most CIS economies is going through the formative stage. Tangible impact of developed and adopted legislative acts in this area is largely counterbalanced by immature market relations, lack of mature competitive environment, unreasonable bureaucratization by the executive authorities, limited financial resources that are required to create favourable environment for innovative SMEs, high risks, poor engagement in the global intellectual space, lack of infrastructure, low innovation culture and inertness of economic thinking.

To step up the innovative development of the region, there was adopted the Interstate Program of Innovative Cooperation between CIS Member States until 2020 (2011).

Small and medium-sized cities suffered the most during the period of economic transformation. Due to the difficulties of the transitional period, in most of these cities there was a decline in the number of industrial enterprises, which used to be major employers. Moreover, even today these cities face the lack of effective programmes and funding for their development, deterioration of engineering, production and transportation infrastructures.

Often, the key problem of small and medium-sized cities is their focus on a single industry (also known as mono-cities) that goes back to the days of planned economy, as a result countries in the

region have not always been successful in integrating these settlements into a new matrix of social and economic development. For example, Russia has 319 mono-cities, 94 of them are classified as settlements with the most difficult social and economic environment (notably with reference to the problems of city-forming organizations)¹⁶. Belarus has more than 70 human settlements that are largely dependent on a single enterprise. Kazakhstan has 27 mono-cities with 15 per cent of urban population in the country. In Kyrgyzstan, 6 out of 25 cities emerged on the mining sites. They were established as settlements servicing some large-scale production operations and can be revived only if the production is resumed¹⁷. In the context of economic crisis, following the degradation of city-forming enterprises, some cities focused on a single industry found themselves in difficult economic conditions and with a significant share of dotations in their budgets. They face a very pressing problem of unemployment.

At the same time, there are examples of successful development of such cities who were able to adapt to the new economic environment. In some cases, they are the base for development in emerging economies. For example, in Russia that is rich in mineral resources, three quarters of revenues from the country's total export in 2012 were provided by individual major exports such as crude oil (34.4%), petroleum products (19.7%), natural gas (11.8%), ferrous metals (4.3%), coal (2.5%), inorganic chemistry products (1.5%), and aluminum ingots (1.2%)¹⁸. These exported minerals and metals, as well as many other exported goods, are mainly produced in small cities and mono-cities. Across the subregion, cities that specialize in economy with a simple export-oriented system of production have an advantageous economic position. For example, cities continue to grow and there are even new cities emerging in the regions of oil and gas production in Russia, Kazakhstan, Azerbaijan and Turkmenistan. However, in the context of a

¹⁶ National report of the Russian Federation to the United Nations Conference on Housing and Sustainable Urban Development, Habitat III, 2015 (draft)

¹⁷ Analytical report – Urbanization in Central Asia: Challenges, Problems and Future Outlook. Centre for Economic Research. Tashkent, 2013

¹⁸ O. Golubchikov, A. Badina, Regional Housing and Urban Development Report for Habitat III: CIS and Caucasus countries Calculations are based on the data of Rosstat (2013). Trade in Russia. Moscow, web access: http://www.gks.ru/bgd/regl/b13_58/Main.htm

capitalist system of geographical distribution of production assets and control over funds, it is important that assets, created mostly in small cities, are essentially accumulated not at the production sites, but rather in capital and major cities in the regions, or, otherwise, in much more distant global financial centers and offshore zones¹⁹.

Creation of decent jobs and livelihoods

According to CIS-STAT, the total number of unemployed²⁰ in CIS countries, in accordance with the criteria of the International Labour Organization (ILO), was at 8.1 million people, or 5.9 per cent of the economically active population in 2013. The year before it was slightly higher – 6.0 per cent. In general, there was a steady decline in the unemployment rate ever since 2000, and its level is definitely lower than in the European Union. In the CIS as a whole, the unemployment rate among economically active women is 5.6 per cent, while that among economically active men is 6.3 per cent. The total unemployment rate among young people aged 15-24 years was 25 per cent; it was 68 per cent among people aged 25-54 years, and it was 7 per cent among those aged 55 years or older across CIS in 2013. The age composition of the unemployed is markedly different across CIS countries. Youth unemployment is high in Central Asia (with the exception of Kazakhstan) and Transcaucasus, which causes labor, often illegal, migration to more developed countries, notably to Russia. However, the official unemployment figures are well below the level determined from labor force surveys, since a significant part of the unemployed are looking for work on their own, without getting registered with the employment services. To some extent, this is the result of a complicated registration process for the unemployed, insignificant amount of unemployment benefits, delays in the payments, and other reasons. In order to enhance employment opportunities, most CIS countries provide training and retraining of the unemployed,

as well as organize paid public works that do not require special training.

The level of salaries varies considerably across countries. Average monthly nominal salary, converted into a single currency at the annual average exchange rate, varies significantly. In 2000-2005, there was more than elevenfold gap, in the following years the gap decreased to 6.5 times in 2013²¹. In 2005-2013, Russia (in 2000 – Kazakhstan) and Tajikistan has had the lowest salary for many years.

In 2013, the average monthly salary in Russia was 6.5 times higher than in Tajikistan, 4 times higher than in Kyrgyzstan, 3.2 times higher than in Moldova (Annex. Table 5.)

Despite the increase in salaries, the poverty level of the population in CIS countries is alarming (Annex. Table 6.) Thus, the share of population living below national poverty threshold is extremely high in Tajikistan (46.7%), Kyrgyzstan (37%) and Armenia (32%). This is accounted for by the fact that the income level of the population in Tajikistan and Kyrgyzstan is among the lowest in the region. This is the consequence of difficult economic conditions caused by deindustrialization and deurbanization, and poor social support from the government. Against this background, Kazakhstan (2.9%), Belarus (4.8%), and Azerbaijan (5.3%) have quite successful metrics. In Kazakhstan and Azerbaijan, they are the result of dynamic development of economies rich in natural resources, while in Belarus this is achieved through socially oriented state policies.

Currently, the Strategy of Economic Development of the Commonwealth of Independent States for the Period until 2020 is the fundamental document aimed at finding mutually acceptable solutions for a wide range of economic issues. Agreed by the CIS member states, this document is a strategic concept that includes common goals, priorities and prospects of the further social and economic development until 2020. It includes, first and

¹⁹ O. Golubchikov, A. Badina, Regional Housing and Urban Development Report for Habitat III: CIS and Caucasus countries, 2015

²⁰ The unemployed, according to the criteria of the International Labor Organization, included people of the certain age used to measure the economic activity of the population (in the CIS countries - from 15 years to 70-75 and above), who during the reference period (during the week preceding the survey) did not have any job (profitable occupation), were actively engaged in job search and were ready to start working within two weeks.

²¹ <http://demoscope.ru/weekly/2015/0629/barom07.php>

foremost, trade, energy, agricultural and industrial complexes, transport, and innovations. The provisions of the Strategy are implemented through plans, which reflect qualitative features of each phase²².

CHALLENGES AND THREATS

- In unstable macroeconomic conditions, the low level of fiscal capacity is a constraining factor for sustainable urban development in the CIS. In many ways, this factor accounts for the lack of continuous and full funding for the development of urban infrastructure.
- Ageing and deterioration of key assets, notably technological equipment, are a constraining factor and threat to the economic growth; they decrease economic resilience and increase the likelihood of man-made emergencies.
- One of threats at the local level is the increase in costs for maintenance of rapidly ageing infrastructure facilities and housing in the context of actual lack of resources for investment in technological re-equipment, greening, energy efficiency improvement, human capital. The greatest risks are faced by monocities with old industries and city-forming industrial enterprises with neglected social infrastructure and low business activity in the context of lack of incentives and mechanisms to improve it.
- In the conditions of urban sectoral structure shift toward the development of service sectors and in the context of the shrinking real sector of the economy, there is a threat of decrease in the number of industrial enterprises, which used to be major employers.
- With reduced funding for research and development and less people engaged in scientific research, there is a decline in the innovation component of the urban economy.
- High share of low-income population groups in a number of CIS countries is alarming and exacerbates social inequalities prevailing in the region, and will continue to provoke social polarization and segregation.

²² The Strategy of Economic Development of the Commonwealth of Independent States for the Period until 2020 (approved by the resolution of the Council of Heads of Government of the Commonwealth of Independent States in 2008.)

HOUSING AND BASIC SERVICES

In all CIS countries in the region up to 1990, there had virtually been no real estate market and housing was provided for free. The technology that used to be promoted envisioned the large scale industrial construction of large blocks of model multi-storey apartment houses (with a simplified layout and cost-effective architectural solutions). As a result, modern cities in the region obtained their distinct look: blank multi-storey residential buildings and large neighborhoods in the suburbs. After the collapse of the Soviet Union, there was a sharp decline in housing construction until 2000, followed by its growth. The transition to market economy and large scale privatization resulted in the fact that virtually all public housing became private within a short period of time. 85–99 per cent of housing in CIS countries was transferred to private owners almost free of charge.

The first countries to complete the privatization of housing faster than the others were Uzbekistan, Kazakhstan, Kyrgyzstan, Moldova and Armenia, with traditionally higher share of home ownership due to the fact that housing stock in these countries largely consists of single-family houses (e.g. 51 per cent of housing was privately owned in Armenia before privatization). In 1995, 82–96 per cent of houses were privately owned in these countries in contrast to Russia and Belarus with 52 and 62 per cent²³.

However, the privatization process was not supported by clear and forward-looking policies, legislative measures and regulatory methods in the sphere of housing management and maintenance. This process gained momentum only around 2005, with some countries being more successful than others (for example, Kazakhstan and Uzbekistan). In general, however, establishing Private Homeowners Associations is not enough, as their num-

ber and role are insignificant. Old apartment houses are, for the most part, still managed by municipal companies, whose services are subsidized from local budgets (in some cases as much as 40%)²⁴. In Uzbekistan, for example, homeowners associations were provided with assistance from the government, notably through tax benefits, transfer of relevant land plots and uninhabited space for permanent use of Private Homeowners Associations, and financial support. Today there exist municipal Private Homeowners Associations, which coordinate their activities and interaction with local authorities and provide assistance in the sphere of education and information services²⁵.

Despite the fact that virtually entire multifamily housing stock was supplied with the necessary infrastructure (water supply, sewage, electricity, gas), lack of public funds for repairs and refurbishment during the economic crisis resulted in its obsolescence and physical deterioration. New and infill construction increased the burden on the existing engineering networks, which lost their efficiency and started to falter. The situation is complicated by the fact that most of the existing housing stock is energy-consuming, and housing and communal services system is too slow in introducing new technologies and innovations²⁶.

Social Housing²⁷

Housing codes and laws of the CIS countries have clearly identified the categories of population entitled to social housing provision. Usually they include vulnerable (orphans, large families, single elderly citizens, veterans, the disabled, etc.) and poor population with a need for better housing conditions. Until 2000s, the construction of social housing was drastically reduced or discontinued in all countries. In recent years, the country reintro-

²³ ISC CIS (2013) Population, Employment and Living Conditions in the Countries of the Commonwealth of Independent States. Statistical abstract. Interstate Statistical Committee of the Commonwealth of Independent States. Moscow; UNECE (2005) The Private Housing Market in Eastern Europe and CIS. Discussion Paper Series No. 2005.5 (edited by J. Palacin and R. Shelburne); USAID (1993) Housing Privatization in the Central Asian Republics of the Former Soviet Union: Uzbekistan Kyrgyzstan, Turkmenistan, Kazakhstan (edited by P. Feiden, Salcido, P., Harris, C., Dinaberg, M., Leonardo, E. International City/County Management Association).

²⁴ Борисова Е. (2013) Практика работы товариществ собственников жилья в России (Работа ассоциаций домовладельцев в России). Higher School of Economics, National Research University. Moscow.

²⁵ O. Golubchikov, A. Badina, Regional Housing and Urban Development Report for Habitat III: CIS and Caucasus countries, 2015

²⁶ The State of European Cities in Transition 2013, Taking stock after 20 years of reform. UN-Habitat

duced the construction of social housing stock, but its volume is not sufficient to meet the needs of those who require it.

In general, the volume and rate of construction of social housing in the CIS countries is not sufficient in view of limited financial and institutional capacities of central and local governments, especially in countries affected by war and those in crisis caused by the influx of refugees. Most countries in the region do not abandon an idea of constructing social housing for the poor, but real possibilities of its practical application are limited because finding solution to this problem requires substantial government subsidies.

Improving housing affordability

Some CIS states still register families in need of better housing conditions. Generally, this registration grants the right to receive a preferential credit, housing subsidies or other state aid to improve household's living conditions. It also gives an idea of what volume of housing construction the country needs.

Despite the annual increase in the volume of housing construction, there is an immense lack of housing, this is particularly the case of Central Asian countries with rapidly growing population. A significant number of households has been on the registration list more than 10 years. On average, only 3-4 per cent of families have been able to improve their living conditions (in 2013 in Russia – 5.6 per cent, in Belarus – 4.7 per cent) across the CIS since 2000. In Tajikistan and Kyrgyzstan, it is 2.3 and 2.6 per cent respectively.

Housing construction in the region in recent years is largely carried out at the expense of individual constructors, especially in countries such as Azerbaijan, Kyrgyzstan, Tajikistan, Uzbekistan, where their share amounted to 66-81 per cent in 2013.

Each country has its own system of providing finance to citizens to improve their housing conditions. There appeared market institutions that

finance housing purchase and sale transactions. The concept of mortgages is being developed. Thus, by far the most attractive conditions of mortgages have been formed in Russia and Kazakhstan. In other countries, the average rate of a mortgage loan is quite high in relation to the income of population. For example, in Kyrgyzstan, housing loans to households for the construction and repair purposes, and purchase of homes are provided by non-governmental financial institutions. At the same time, the countries have identified privileged categories of citizens who are entitled to government support in housing construction and purchase.

Countries make attempts to improve the situation and provide population with affordable housing by implementing national housing construction programs. As part of government programs, there are subprograms to ensure housing for all categories of citizens that need to improve their housing conditions – young households, young professionals (teachers, doctors, etc.), families with many children who need to move out of dilapidated housing, etc., by means of constructing social, rental housing and providing preferential mortgage loans²⁸. Some countries establish a practice of constructing public rental housing.

At the end of 2013, the total floor space of housing stock amounted to 5.5 billion square meters across the Commonwealth. Housing stock in CIS countries has increased by 11.5 per cent since 2000. Four countries had a maximum increase in housing stock – Tajikistan (+55.4 per cent), Azerbaijan (+43.1 per cent), Armenia (+41.8 per cent) and Kazakhstan (+40.6 per cent). Moldova (+6.6 per cent) and Ukraine (+8.1 per cent) had the lowest increase in housing stock among all CIS countries. In Kyrgyzstan, the downsizing of the housing stock in 2013 was related to data update after inventory survey conducted by the State Registration Service of the Kyrgyz Republic.

The annual completed construction per 1 thousand residents increased 2.2 times (by 213 sqm) and amounted to 398 sqm/1000 persons in the CIS

²⁷ Despite differences in the interpretation of the concept of social housing in different countries, generally speaking it can be defined as housing with access not being based upon market rules (supply and demand), but rather being determined by a range of criteria (maximum income, target groups) and methods of provision.

²⁸ National report of the Russian Federation to the United Nations Conference on Housing and Sustainable Urban Development, Habitat III, 2015 (draft)

countries between 2000 and 2013. Such countries as Tajikistan, Azerbaijan and Kazakhstan increased housing construction 3-5 times. At the same time, Uzbekistan demonstrates the slightest (1.1 times) increase in housing construction among all CIS countries. During the period under review, housing construction in Belarus, Russia, Kyrgyzstan and Ukraine increased relatively smoothly and steadily²⁹.

In 2013, the average living space for a citizen of the CIS was 23 square meters. Compared to 2000, this figure increased by 5 sq.m. This index is affected by the volume of new housing construction, as well as changes in population size and deterioration (withdrawal) of existing housing stock. Higher cost of housing compared with incomes of general population is also one of the limiting factors of housing availability growth.

Ensuring sustainable access to basic utilities infrastructure

By early 1990s, essentially all former Soviet republics had an adequately developed urban utilities infrastructure, especially in major cities. However, it often lagged behind the growth rate of urban population and urban economic development. System of infrastructure provision had centralized funding and was subsidized by the government.

Currently, the urban infrastructure in the region is experiencing growing pressures. All states face similar problems with their urban utilities infrastructure:

- high level of degradation of engineering networks and facilities;
- low level of consumption metering devices provision;
- technological underdevelopment of the industry, including inadequate application of innovative energy and resource saving technologies and activities;
- insufficient extrabudgetary financing of networks and facilities reconstruction projects.

Large and medium-sized cities have canalization, gas, and hot water supply, but there are problems with or lack of these facilities in other human settlements in some CIS states. (Annex. Table 7.)

There is a lower floor space relative share of dwellings equipped with central heating and hot water supply in urban settlements in Azerbaijan, Kyrgyzstan and Tajikistan. This is largely due to the fact that these countries have a high share of low-rise private houses³⁰. In general, urban dwellers living in individual comfortable apartments are better provided with main types of home amenities than rural dwellers.

Three countries accounted for maximum water consumption for domestic needs in 2013 – Russia, Belarus and Kazakhstan, and minimum water consumption was in Armenia, Moldova and Azerbaijan. The dynamics in four countries of the region (Russia, Azerbaijan, Belarus, Ukraine) between 2000 and 2013 shows that there was a nearly 1.7–1.6 times decrease in water consumption for domestic and drinking needs; the decrease in water consumption was maximum in Russia and was down to 44 cubic meters per person. In general, drinking water supply conditions are very different and depend on the type of human settlement. Urban population, as a rule, has better access to high-quality water sources than rural dwellers. However, significant differences in access are often observed within urban areas.³¹

The share of household spending on housing and utility services, despite the fact that they are growing on the whole, is still lower than in EU countries. In 2013, according to sample households surveys, the share of spending on housing and utility services in the Commonwealth countries was between 4.4 per cent in Belarus and 12 per cent in Armenia. (Annex. Table 8.) The region continues the reform of public utilities system with a gradual increase in the spending share of the population. Thus, in the future the share of household spending on housing and utility services will only increase.

²⁹ Analytic note "Housing Conditions of Population, Rates and Practices of Housing Construction in the Commonwealth Countries", the Executive Committee of the CIS, Moscow, 2015.

³⁰ Analytic note "Housing Conditions of Population, Rates and Practices of Housing Construction in the Commonwealth Countries", the Executive Committee of the CIS, Moscow, 2015

³¹ WHO report, Progress on Sanitation and Drinking Water – 2014 Update.

The countries are upgrading their management systems and community facilities, however, a lot needs to be done to overcome the consequences of the crisis years, to restore and create an effective infrastructure to ensure the population's access to basic services.

Energy efficiency in the housing sector

The housing sector in the CIS region is the largest consumer of heat energy and electricity, and it is characterized by extremely low energy efficiency. Improving energy efficiency in the housing sector is one of the priorities for the Commonwealth member states. The main factors that hinder the implementation of energy efficiency projects in the region are: low energy rates, which do not cover its production costs; underdeveloped or non-existent markets of energy efficient goods and services; underdeveloped financial structures that do not provide benefits; lack of time-tested laws and legal institutions aimed at removing barriers to energy efficiency improvements and promoting better financing and management; lack of knowledge and capacities in house-renovating companies and homeowners associations; etc.³²

Over the past 10 years, countries of the region significantly changed their attitude to energy efficiency and energy saving in the housing sector. Countries recognized the need to improve the situation in this area, but changes are taking place slower than desired. Most CIS countries made amendments to laws and regulations binding them to improve energy efficiency in housing construction; there were implemented pilot projects of new housing development and reconstruction. Altogether, it should be recognized that most CIS countries are only making the first steps on this way. Thus, according to the Energy Efficiency Center, residential housing sector is a major energy consumer in Russia, which accounts for: 23 per cent of primary energy consumption; 21 per cent of final energy consumption; 42 per cent of final consumption of thermal energy.

Multi-storey residential buildings constructed in the 1960s and later are the major challenge for en-

ergy efficiency: they have less consumer appeal and a lower level of ecological safety; further consideration should be given to whether their term of service should be made longer and whether they use resources efficiently. Energy use in these buildings is almost 3-5 times higher than in EU countries, and varies between 320 and 690 kWh per square meter a year. The physical ageing of housing stock accelerated by its inappropriate maintenance resulted in the fact that a large number of multifamily houses do not have proper thermal insulation, whereupon most of the heat they consume is lost. The degraded condition of existing networks and structures is the cause of increase in the number of accidents and malperformance of utilities lines, heavy loss of energy.

Belarus was one of the first countries in the CIS to implement methods of energy renovation of existing multi-storey houses and changed over to large-scale construction of new energy-efficient housing. Since 1997, the country made extensive efforts to ensure thermal renovation of the existing housing stock. In 2009, there was launched an integrated program aimed at design and construction of energy-efficient houses. There was developed an appropriate regulatory framework and policy documents. In 2010, other countries in the region started to create institutional energy efficiency infrastructure. In 2012, Kyrgyzstan was one of the first countries in the CIS to adopted a law on energy efficiency of buildings. Energy efficiency regulations that set requirements for thermal protection of buildings to ensure energy saving have been adopted in Belarus, Russia, Tajikistan, and Kyrgyzstan. Since 2008, Central Asian countries, Armenia and Belarus have actively participated in UNDP/GEF international projects, which reflect the interest of international community to energy efficiency of buildings.

Energy-efficient construction is gradually developing in the countries of the region, with some problems becoming apparent, for example, lack of long-term systematic technical supervision and sociological studies of reconstructed energy-efficient residential buildings; lack of integrated solutions

³² Removing Barriers to Energy Efficiency Improvements in Housing Sector in South-Eastern Europe and the Commonwealth of Independent States, UNECE

to optimize the service life of the various elements of residential buildings in order to ensure maximum energy savings; lack of training and teaching materials for the residents; problems of air circu-

lation in reconstructed apartment houses, and low rates for utility services, which do not stimulate energy-saving³³.

FUTURE CHALLENGES AND THREATS

- Lack of clear government urban management threatens to increase uncontrolled construction and entails more difficulties with legalization and access to basic social and engineering urban infrastructure.
- In the future, the major challenges will include the degradation of 50-70s multi-family residential development in the cities and reconstruction of worn out and obsolete housing, public utilities networks, whose condition is deteriorating with every passing year.
- With an increase in social inequality, decrease in incomes and reduced access to social and non-profit rental housing, there appears a threat of marginalization of socially vulnerable groups.
- Main threats and challenges in the housing sector are caused by the following issues:
 - urban regulation and land management system, which is the basis of housing development, has neither ensured the formation of comfortable living environment, nor that of a transparent legal framework for investors and developers as yet;
 - housing market is characterized by a low level of competition and high degree of dependence on the administrative authorities, high administrative barriers, focus on outdated technology and architectural design solutions;
 - municipal sector is still the sector of economy that is not attractive for private investment;
 - housing stock transferred to the ownership of citizens has not become the object of their responsibility, there is an increase in the level of housing stock deterioration; no professional market for apartment buildings management was formed³⁴.

³³ O. Golubchikov, A. Badina, Regional Housing and Urban Development Report for Habitat III: CIS and Caucasus countries, 2015

³⁴ National report of the Russian Federation to the United Nations Conference on Housing and Sustainable Urban Development, Habitat III, 2015 (draft)

Conclusion

Cities in the region still do not adequately fulfil their basic function – to become a source of innovation and high living standards due to the fact that the existing urban settlement system were shaped under the influence of planned economy and are not always adapted to the demands of the new market system. However, today cities in the region play the key role in ensuring the transition of national economies to innovation development model with predominance of modern urban economic activities: manufacturing industries, information, financial and business services sector. Improving the competitiveness of cities is possible only in the context of rising standards of living, creating high-quality, safe, comfortable urban environment capable of attracting and maintaining highly skilled workforce.

Table 1. The population size in CIS countries, 1996-2014.

Country	1996	2000	2005	2010	2014	Changes in the population size, 1996-2014. thousand people	The share of population decrease/increase of 1996 level
Tajikistan	5 701,4	6 128, 5	6 718,9	7 417,4	8 161,1	+2459,7	+43%
Uzbekistan	22906,5	24487,7	26021,3	29123,4	30492,8	+7586,3	+33%
Kyrgyzstan	4 545,0	4 900,0	5136,1	5418,3	5776,6 1	+1231,6	+27
Turkmenistan	4 267,7	4 501,4	4 747,8	5 042,0	5 351, 6	+1083,9	+25%
Azerbaijan	7726,2	8032,8	8447,4	8997,6	9477,1	+1750,9	+22,6
Kazakhstan	15 480,6	14 865,6	15 219, 3	16 440, 1	17 417,7	+1937,1	+12,5%
Russia	148 160,0	146 597,0	143 474,2	142 856,5	143 666, 9	-4493,1	-3%
Armenia	3 248, 8	3 203,4	3 156,0	3055,2	3017,4	-231,7	-7
Belarus	10 177,3	10 002,5	9697,5	9500,0	9468,2	-709,1	-7%
Ukraine	51297,1	49429,8	47280,8	45962,9	45426,2	-5870,9	-11,4%
Moldova*	4 331, 9	3644,1	3600,4	3563,7	3 557, 6	-774,3 (505.2 of them is the population of Transnistria)	-17,8%

*1996 the population of Moldova with Transnistria; 2000. the population of Moldova without Transnistria

Sources: Data provided by National statistical committees and agencies of CIS countries

Table 2. The level of urbanization in CIS countries, 1995-2014.

Country	1995	2000	2005	2010	2013	2014	Growth, %	Analysis
Moldova	46,3	41,5	41	41,4	41,9	42,2	-4,1	Decrease in total population, division of the territory and exclusion of statistical data for Transnistria
Armenia	66,4	64,9	64,1	64,0	63,3	63,4	-3,0	Decrease in the total population, outmigration to other countries
Kyrgyzstan	36,3	35,3	35,3	34,1	34,8	33,6	-2,7	Deindustrialization, growth of the agricultural sector, increased unemployment, deurbanization in the context of positive natural population growth
Turkmenistan	44,8	45,9	47	48,4	49,4	43,7	-1,1	Deindustrialization, migration caused by unemployment, deurbanization in the context of positive natural population growth
Tajikistan	27,4	26,6	26,4	26,6	26,4	-	-1,0	Deindustrialization, migration caused by unemployment, asymmetry and fragmentation of settlement, lack of social, cultural and transport infrastructure in the context of positive natural population growth.

continued Table 2

Kazakhstan	55,7	56,4	57,1	54,4	54,8	54,9	-0,8	Internal and interstate migration in the context of positive natural population growth. Changes in the administrative division of the country
Azerbaijan	52,4	51,1	52,4	53,1	53,1	53,2	0,8	Positive natural population growth
Russia	73,1	73,4	73,5	73,7	73,9	74,1	1,0	Internal migration "from rural areas to cities", positive natural population growth 2013-2014.
Ukraine	67,9	67,4	67,7	68,6	68,9	69	1,1	Internal migration "from rural areas to cities" in the context of shrinking total population and negative natural increase of population
Belarus	68,6	70,1	72,2	75,1	76,3	76,8	8,2	Internal migration "from rural areas to cities" in the context of shrinking total population and negative natural increase of population
Uzbekistan	38,4	37,4	36,7	36,2	51	-	12,6	1995-2009 – higher rates of the rural population growth, administrative constraints (official residential registration system), outmigration of some part of urban population. In 2009, 965 large rural settlements were given the status of urban settlements

Source: National statistical committees and agencies of CIS countries

Graph 1. Share of urban population living in the capital cities of the CIS countries in 2013. (according to CIS-STAT)

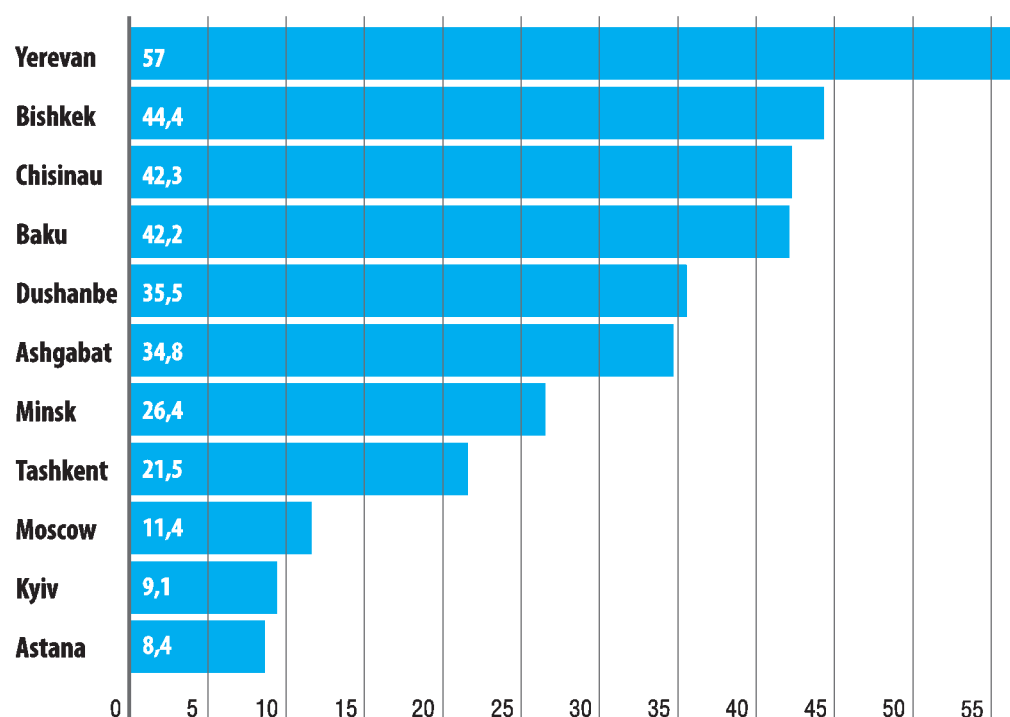


Table 3. The number of passenger cars per 1,000 people in CIS countries, units, 2000–2013

CIS countries	2000	2005	2008	2009	2010	2011	2012	2013
Azerbaijan	41	54	81	86	91	96	104	112
Belarus	139	180	230	246	264	280	279	282
Kazakhstan	65	86	154	156	178	203	210	209
Kyrgyzstan	37	37	58	62	61	64	68	74
Moldova	64	78	98	-	-	-	-	-
Russia	132	169	214	221	228	242	258	273
Tajikistan	19	21	31	44	38	39	40	42
Ukraine	104	113	132	136	142	143	-	-

Source: National Statistical Committee of the Republic of Belarus

Table 4. Gross domestic product per capita in the CIS countries, current prices, USD 2000–2013

CIS countries	2000	2005	2010	2013
Azerbaijan	655	1 578	5 843	7 812
Armenia	621	1 625	3 125	3 505
Belarus	1 144	3 124	5 789	7 499
Kazakhstan*	1 428	4616	9 988	15 267
Kyrgyzstan	280	476	880	1 263
Moldova	354	831	1 632	2 230
Russia	1 772	5 338	10 710	14 612
Tajikistan	139	340	740	1 037
Turkmenistan	645	1 707	4 393	7 987
Uzbekistan	558	547	1 377	1 878
Ukraine	636	1 829	2 974	3 900

Source: National Statistical Committee of the Republic of Belarus

Kazakhstan* – according to the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan

Table 5. Nominal average monthly salary of workers in the CIS countries, USD, 1996–2014

CIS countries	1996*	2000	2005	2010	2013	2014
Azerbaijan	21	50	131	413	542	567
Armenia	23	42	114	248	358	381
Belarus	90	74	215	407	564	590
Kazakhstan	79	101	256	527	717	675
Kyrgyzstan	34	26	64	156	234	229
Moldova	32	33	105	240	292	291
Russia	104	79	303	682	936	856
Ukraine*	50	42	157	282	408	
Tajikistan	7	9	27	81	146	165
Turkmenistan	36	261	367	

Source: National Statistical Committee of the Republic of Belarus, CIS-STAT

Ukraine* – Статистичний щорічник України за 2000 рік. - К.: Техніка, 2001. — p. 544.

Table 6. Poverty level of population in CIS countries, % to the total population in 2013–2014.

CIS countries	Year	Relative share of population below the national poverty line	Year	Relative share of population living on less than \$1.25 per day	Relative share of population living on less than \$2.00 per day
Azerbaijan	2013	5,3	2008	0,3	2,4
Armenia	2013	32,0	2012	1,8	15,5
Belarus	2014	4,8	2014	0,0	0,0
Kazakhstan	2013	2,9	2010	0,1	0,8
Kyrgyzstan	2013	37,0	2011	5,1	21,1
Moldova	2013	12,7	2011	0,2	2,8
Russia	2013	10,8	2009	0,0	0,3
Tajikistan	2009	46,7	2009	6,5	27,4
Uzbekistan	2011	16,0
Ukraine	2013	8,4	2010	0,0	0,0

Source: National Statistical Committee of the Republic of Belarus

**Table 7. Improvement of urban housing stock in the CIS countries in 2013
(at the end of the year, %)**

CIS countries	Relative share of the total floor space of homes with			
	central heating	water supply	canalization	hot water supply
Azerbaijan	38	89	82,1	3,7
Armenia	11	99,8	96,2	79,8
Belarus 2013/2014	89,8/90,1	88,4/88,8	87,7/88,2	82,3/82,8
Kazakhstan	61,6	99	80	56,1
Kyrgyzstan⁵	31,3	74,2	62,9	11,5
Moldova	78,9	85,4	84,9	70,8
Russia¹	92,1	89,8	87,6	80,5
Tajikistan	44,1	75	66,9	33,3
Turkmenistan²	60,6	82,1	63,5	...
Uzbekistan³	58,6	81,2	50,1	42,3
Ukraine⁴	77,4	78,5	77,4	61,6

¹ Not all housing stock owners.

² 2007 ³ 2010 ⁴ 2012 ⁵ 2014

Source: CIS-STAT

Table 8. Share of household spending on utility services in the CIS countries (according to sample survey of households; %), 2000–2013

CIS countries	Consumer expenditure				Total expenditure on paid services			
	2000	2005	2012	2013	2000	2005	2012	2013
Azerbaijan	4,6 ¹⁾	6,1	7,4	7,7	21,1 ¹⁾	20,4
Armenia	5,8 ¹⁾	6,5	12,3	12,2	39,4 ¹⁾	26,9	42,0	40,7
Belarus	3,0	9,1	4,1	4,4	30,7	42,7	24,8	23,7
Kazakhstan	11,9	11,1	6,5	6,6	49,5	42,6	35,7	34,9
Kyrgyzstan	4,9	4,9	5,8	5,8	31,8	28,4	32,4	30,7
Russia	4,7	8,3	8,8	8,8	34,3	35,5	34,1	33,4
Tajikistan	1,8	3,4	4,8	5,4	32,0	28,9	35,7	36,7
Ukraine*	6,6	7,4	9,3	9,1	40,4	43,4	43,8	43,6

* 2001

Source: CIS-STAT

FOR NOTES

